

A BRIEF REVIEW ON STARTUP MENTORING IN HIGHER EDUCATION IN ECUADOR

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ABSTRACT

The present study reviews three recognised Ecuadorian academic start-up mentor programs and briefly discusses some governmental and private initiatives which support these academic programs. The main objective of the study is drawing attention to the importance of start-up advising and mentoring in higher education in general and at the national level.

Keywords: Startup mentoring, Ecuador, Co-working, Co-working Start-ups, Universidad Politécnica Salesiana.

INTRODUCTION

Ambitious young people who are brave enough to start new firms are creating jobs and more importantly, performing self-realization. However, the practice shows that the lack of experience causes high percentage of failure after a few months of business launch. “To reduce the failure rate of youth enterprises and address critical issues during the start-up process, the public and private sectors are increasing their efforts to support young people by providing training, technical assistance and small credits” (Llisterri et al., 2006).

Start-up mentoring in Ecuador formally began in 2013 with a government’s initiative called National Plan for Good Living (Lasio, 2014). There are three governmental offices, which are responsible for promoting innovation: the National Secretariat for Science and Technology (SENESCYT), National Secretariat for Planning and Development (SENPLADES) and the office of the Vice Presidency. As part of the government’s initiative SENPLADES designed a plan “Change of the Productive Matrix” (Cambio de la Matriz Productiva) with the Korea’s Knowledge Sharing Program (KSP) that is part of the Korean Development Institute (London, 2015). Preparing the National Plan for Good Living in 2008, Ecuador began allocating 25 percent of national GDP or \$140 million, a percentage of the national budget to research and development (KPMG, 2012). These innovations promoting national initiatives support business development by organizing start-up (pitch) competitions, establishing co-working spaces and business incubation centres and providing start-up mentoring opportunities (London, 2015). To support coordinating and synchronizing the different programs and incubators, a network called Alliance for Entrepreneurial Innovation (AEI) was established. AEI is a public, private and academic partnership that supports innovation by providing relational and seed capital, informational re-sources and training to entrepreneurs (AEI, 2014).

IMPORTANCE OF STARTUP MENTORING IN HIGHER EDUCATION

We would like to draw attention to why the start-up mentorship is significant in higher education in general. Firstly, it is important to mention that there are remarkably many successful start-up founders coming from universities. Here are some examples: Michael Dell, student at University of Texas at Austin founded the DELL; Arash Ferdowsi and Drew Houston, students from MIT founded the Dropbox; Mark Zuckerberg, student at Harvard founded Facebook; Larry Page and Sergey Brin, students from Stanford founded Google; Bill Gates and Paul Allen shortly after leaving Harvard, founded Microsoft. Many successful business people state that they suffered during their studies. Some of them quit the university before finishing the academic program. Kiyosaki mentions that he and most of the self-made billionaires have learnt all their viable knowledge about entrepreneurship outside the classroom (Kiyosaki, 2001). We share Salgado's opinion that it is more fortunate when the innovative students receive guidance from their alma mater during their studies (Salgado et al, 2017). We collected some reasons to substantiate this statement: (1) In general, the university is a good base to practice launching a business. Finding a group of people with the same interest is relatively easy. (2) Receiving guidance about the product development from experts (practice-oriented professors) without having to pay a fee for consultancy. (3) Building up a team, as most of the time in a day the students spend together. (4) Testing the prototype, since the laboratories are available for the students in many disciplines. (5) Validating the product with the university's partner institutions, companies. (6) Organizing meetings with potential business partners in a nice environment (such as co-working places) without renting an office. In Ecuador, innovative product exposes the 36.21% of the 3,188 registered companies. Nevertheless, between the businesses that deal with innovative products, only the 7.39% launch new products to the national market and 1.3% launch their new products to the world market (SENESCYT, SENPLADES, 2014). For this reason, it is important to educate the innovative young business people. In the followings, three recognized Ecuadorian academic start-up mentor programs will be introduced.

YACHAY TECH, YACHAY UNIVERSITY

Yachay University works based on a triple helix innovation model that involves government, academy and industry. This models leads to the creation of innovative entrepreneurship that promotes patents, contributes to the development and ends up being part of the national economy. Start-ups and entrepreneurship are in the Special Zone of Economic Development because of its contribution to the ecosystem. The process begins with a seed capital given by Yachay, a private sector or other partner. Teachers and students work together in order to create Start-ups within this vision, in an innovation ecosystem that articulates the three actors: Government, Academia and Industry (Chiriboga, 2017). Yachay Tech focuses on Start-ups with products that generate technological transfer, intellectual property, patents with a broaden goal of establishing a technological park. In order to achieve this goal, Yachay works through Technology Transfer Offices, Incubators and Entrepreneurship centres to promote the entrepreneurial spirit in scientific, researches, students and citizens in general (Paez Aviles et al., 2014)

THE ENTREPRENEUR CENTER, UNIVERSIDAD SAN FRANCISCO DE QUITO

According to San Francisco University (USFQ, Spanish acronym), in order to promote the entrepreneurship ecosystem it is important to consider four main actors: Academy, public, private sector and civil society. USFQ has developed the Entrepreneurship Centre (CdE, Spanish acronym) in order to create an environment with opportunities so different actors can develop projects and ideas, interacting in a dynamic and collaborative ecosystem that supports shared values (Landsdale et al., 2012). The Entrepreneur Centre has the support of the Business Advising Group that belongs to the Business Administration School and works to articulate, facilitate, incubate and promote business initiatives; acting as an effective driver of economic and social development in Ecuador. Innovation, technology and cooperation are the working force of the CdE and together with teachers and student, they give advice, research, accompaniment, training and help in the execution of projects (Landsdale et al., 2012).

COWORKING STARTUPS, UNIVERSIDAD POLITÉCNICA SALESIANA

Universidad Politecnica Salesiana (UPS) runs coworking places and synchronizes start-up monitoring in each campus (Cuenca, Quito-Giron, Quito-Sur and Guayaquil). The vice-chancellor of investigation noticed very well that academic teachers need to be train to become effective mentors (Salgado, 2017). In order to bring together theorists and practitioners, there are several initiations in the university's framework such as meet-ups, courses and Boot Camps. At first glance, it seems hard to achieve, as business people have experience in market launch, but knowledge sharing is not their strength. While teachers' strength is explaining, most are not good at mapping everyday problems or building up a company. We supplemented the methods: (1) Working with People (De Los Rios et al., 2016), (2) Project-based learning (Ceca, 2012) Happy Canvas School (The happy canvas school, 2016), (4) Scrum (Scrum, 2018), (5) Resilencia Camaleon (Manciaux, 2013) and (6) Idea, Design, Prototype, Validation (Milla, 2015) that are applied and/or combined in the Co-working Start-ups program.

CONCLUSION

In order to reduce the failure rate of youth enterprises and address critical issues during the start-up process, the co-working spaces and mentor programs developed in each discussed university in this study for the promotion of innovation and entrepreneurship show that Ecuadorian universities are working on generating an environment where students can develop their capabilities and together with teachers and/or researchers (Table 1). This practice shows that the Ecuadorian universities do not compete; instead, they support each other start-ups in order to achieve greater success

Table 1 COMPARISON OF THE ACADEMIC STARTUP MENTOR PROGRAMS DISCUSSED IN THE STUDY			
	Yachay	USFQ	UPS
Actors	Government Academy Industry	Government Academy Private Sector Civil Society	Government Academy Private Sector Civil Society International Partnership
Mentors	Teachers	Teachers	Teachers National and International business men and woman
Goal	Establish a technological park	Articulate, facilitate, incubate and promote business initiatives	Application of 6 methods to promote and develop the innovation, research and entrepreneurship ecosystem, creating an environment that powers student's capabilities. Supporting with mentorship, incubation and acceleration processes.
Space	Technology Transfer Offices, Incubators and Entrepreneur Center	Entrepreneur Center	Co-working Spaces in each Campus
Funding	Seed capital	-no available information	Seed capital
Activities	Workshops, event, mentoring	Advice, research, accompaniment, training and help in the execution of projects	Mentoring, booth camps, hackathons, meet-ups, permanent mentor training school, workshops.

REFERENCES

- Adán, C. (2012). El ABC de los parques científicos. *Seminarios de La Fundación Española de Reumatología*, 13(3), 85-94.
- AEI. *Estrategia Ecuador 2020*. Quito, Ecuador.
- Carland, J.W., Hoy, F., Boulton, W.R. & Carland, J.A. (1984). Differentiating entrepreneurs from small business owners. *Academy of Management Review*, 9(2), 354-359.
- Ceca, J.B. *Sistema de planificación para la defensa de ponencias*.
- Chinnowsky, P., Brown, H., Szajnman, A. & Realph, A. (2006) Developing knowledge landscapes through project-based learning. *Journal of Professional Issues in Engineering Education and Practice*, 132(2), 118-125.
- Chiriboga, L. (2017). *Yachay Tech como Zona Especial de Desarrollo Económico, la generación del conocimiento a través de la Triple Hélice*. *Yura Relaciones Internacionales*, 11, 897-913.
- DeLosRíos, I., Rodríguez, F., Pérez, C., Seagroatt, V. & Gill, L. (2015) Promoting professional project management skills in engineering higher education: Project-based learning (PBL) strategy. *International Journal of Engineering Education*, 31(1), 1-15.

- DeLosRios, I., Sastre-Merino, S., Fernandez, C., Nuñez, C., Reyes, E. & Garcia-Arjona, N. (2016) Proposals for improving evaluation systems in higher education: An approach from the model 'Working with People'. *Journal of Technology and Science Education*, 6(2), 104-120.
<http://www.thehappystartupschool.com/building-a-startup-that-matters/>
<https://www.mountaingoatsoftware.com/training/video>
- International Project Management Association. (2012). *NCB 3.1 Bases Para La Competencia En Dirección De Proyectos. Aeipro (2012) IPMA Certification Year-book*.
- Kiyosaki, R. (2001) *Rich Dad's Cash flow Quadrant: Guide to Financial Freedom*. Grand Central Publishing.
- KPMG. (2012). *R&D Incentives and Services-Adding Value across the Americas*.
- Landsdale, D., Abad, C. & Vera, D. (2012). Impulsores Claves para Establecer el Ecosistema Dinámico de Emprendimiento en Ecuador. *Polémika*, 9(1).
- Lasio, V., Caicedo, G., Xavier, O. & Villa, R. (2014). *Global Entrepreneurship Monitor: Ecuador 2013*. ESPAE-ESPOL.
- Llisterri, J.J., Kantis, H., Angelelli, P. & Tejerina, L. (2006). *Is youth entrepreneurship a necessity or an opportunity?* *Inter-American Development Bank*. Sustainable Development Department Technical Papers Series.
- Manciaux, M. (2013). *La resiliencia: Resistir y rehacerse*. Mundo Coaching Magazine.
- Milla, F. (2015). *Taller aprende a validar tu idea con prototipos y productos mínimos viables*.
- Paez, A.C., Juanola, F.E. & Samitier, J. (2014). YACHAY: An innovative case study model of university-company cooperation in Latin America. In *31st IASP World Conference on Science Parks and Areas of Innovation*. Doha: International Association of Science Parks and Areas of Innovation.
- Salgado, J.P., DeLosRios, I. & López, M. (2017) *Management of Entrepreneurship Projects from Project-Based Learning: Co-working Start-ups Project at Universidad Politécnica Salesiana (Salesian Polytechnic University), Ecuador*. Intech: Business, Management and Economics.
- SENESCYT, SENPLADES. (2011). *Diseño Participativo del Plan Nacional de Ciencia, Tecnología, Innovación y Saberes para el Buen Vivir: Presentacion Metodología*, 1-27.