

# ANALYSIS OF ENTREPRENEURSHIP ECOSYSTEM AT UNIVERSITY

Suryanto, Universitas Padjadjaran

## ABSTRACT

*This study aims to analyze the entrepreneurship ecosystem at university. The research uses a qualitative approach with a type of exploratory research. Data sources were obtained through in-depth interviews, observations, and documents related to the object of this research. The results of the study show that there are several components of the entrepreneurial ecosystem that can support the growth of new entrepreneurs in universities, including business incubator centers, the establishment of entrepreneurship centers, independent entrepreneurship programs, impact entrepreneur programs, entrepreneurial student development, and entrepreneurship priority. Several strategies are implemented to create an entrepreneurial ecosystem in universities, including curriculum policies, improving the quality of lecturers, accelerating downstream research products, cooperation with other institutions, and providing best entrepreneurship. However, from some of these components, there are those whose roles are still not optimal, namely: curriculum application, the role of business incubator centers, the collaboration between faculties, and collaboration with banking institutions.*

**Keywords:** Entrepreneurship Ecosystem, Entrepreneurship, Universities, Students.

## INTRODUCTION

Entrepreneurial ecosystems show an interconnected community between various components that support each other in giving birth to new entrepreneurs. New entrepreneurs can emerge and develop not only because of the heroic, talented, and visionary individual (entrepreneur). New businesses also arise because they are in an environment or "ecosystem" that allows them to be easy and supportive in starting a business. A conducive entrepreneurial ecosystem is needed in giving birth to prospective new entrepreneurs.

The government strongly encourages the birth of entrepreneurs among the younger generation. The government realizes the role of entrepreneurs in determining the progress of a nation has been proven by several developed countries such as America, Japan, and neighbouring countries such as Singapore, Malaysia, and Thailand.

At present, the number of entrepreneurs in Indonesia is still very limited. This can be seen from the results of Nawangpalupi et al. (2014) which shows that the new Indonesia has around 1.65 percent of entrepreneurs from a total population of 250 million. According to McClelland (1961), this number has not reached the ideal number of two percent of the population. Especially when compared to the United States far behind because it has reached more than 12 percent of the population become entrepreneurs. Furthermore, Japan has more than

10 percent of entrepreneurs, even nearby countries such as Singapore, Malaysia, and Thailand each have 7 percent, 5 percent and 3 percent of the total number of entrepreneurs.

Based on research results Campanella et al. (2013) universities have a very important role in giving birth to prospective new entrepreneurs. Because university graduates have far wider insights and are able to develop innovative models as a provision to become an entrepreneur. In line with the research, an entrepreneur will be able to succeed according to Jack & Anderson (1999) if they have artistic abilities and the knowledge of entrepreneurship.

How important the role of universities is in giving birth to prospective entrepreneurs, the university according to Mack & Mayer (2016) must be able to create a conducive entrepreneurial eco-system. The role of each component in the ecosystem such as faculty according to Hayter (2016) is needed in adding to the social network of prospective entrepreneurs. While according to Autio et al. (2014) policy determinants are a more dominant factor in creating an entrepreneurial ecosystem. Policymakers according to Hermanto & Suryanto (2017) will be able to synergize the components in the entrepreneurial ecosystem. More comprehensively, Mueller & Toutain (2015) explained that school is the right environment to foster cultural creativity, self-confidence, and freedom to develop. The role of schools is very important in the development of ecosystems. Entrepreneurship will have an impact on students during and after they complete education.

Other researchers Guerrero et al. (2016) emphasizes the contribution of universities in promoting innovation and entrepreneurial activities. Whereas Boh et al. (2016) found a spin-off mechanism for entrepreneurs from entrepreneurial ecosystems at universities. While according to Aldrich et al. (1989), Prahalad (2005), and Cohen (2006) Entrepreneurship ecosystems will be more conducive if they are able to explore the role of components from formal and informal networks, physical and cultural infrastructure. In addition, according to Spiegel (2017) each component must be able to provide benefits and reproduce the ecosystem.

## LITERATURE REVIEW

The definition of an entrepreneurial ecosystem as described by Nicotra et al. (2018) is a combination of social, political, economic and cultural elements in a region that supports the development and growth of innovative start-ups and encourages new-born entrepreneurs and other actors to take the risk of starting, funding, and in other ways helping high-risk businesses. According to Isenberg (2011a), an entrepreneurial ecosystem consists of elements that can be grouped into six domains: conducive culture, facilitating policies and leadership, availability of dedicated finance, relevant human capital, venture-friendly markets for products, and wide set of institutional and infrastructural supports.

Prahalad (2005) provides a definition for an entrepreneurial ecosystem, which according to him ecosystems enable individuals, companies, and communities to join effectively to generate economic wealth and prosperity. The extraordinary attribute of the ecosystem is to bring together stakeholders who are often driven by various goals and expectations.

While Aldrich et al. (1989) explain that entrepreneurial ecosystems are characterized by the family business and role models, diverse economies, strong business infrastructure, available investment capital, supportive entrepreneurial culture, and public policies that encourage business creation. The entrepreneurial ecosystem can not only act as a catalyst in accelerating economic progress from a stable economy but can also act as a prime mover in terms of saving an economy facing a sharp decline. The cultural impact on the development of an entrepreneurial ecosystem cannot be ignored. There is a need for models that recognize individuals without ignoring social factors that are beyond the control of individuals. A single framework is needed because of the personality and behaviour of individuals, political systems and laws, social customs related to the national culture from which they originate (Lee & Peterson, 2000).

Van De Ven (1993) describes in detail industrial infrastructure that facilitates and inhibits entrepreneurship. Infrastructure includes institutional arrangements to regulate and standardize new technologies, endowment funds, public knowledge, scientific basis, funding mechanisms, and a collection of a competent workforce, as well as research and ownership of the development, manufacture, marketing, and distribution functions.

The application of the entrepreneurial ecosystem according to Cohen (2005) outlines nine main factors which are the main components, including informal networks, formal networks, universities, government, professional services and support, capital services, and the talent pool. While Isenberg (2010) proposed a model for ecosystem consisting of thirteen factors, including leadership, government, culture, success stories, human capital, financial capital, entrepreneurship organizations, education, infrastructure, economic clusters, networks, support services, early customers. They include government stakeholders, educational institutions, financial institutions, media, and networks.

## METHODOLOGY

This study uses a case study research method as explained by Kidder (1982) to provide a qualitative description. The university campus which is the object of research in this study is Padjadjaran University. The source of primary data is obtained through in-depth interviews and direct observation in the field. Interviews were conducted with representatives of the study program leaders of the exact science and social science groups, faculty leaders, heads of business incubators, student directors, and students of Padjadjaran University in Bandung, Indonesia. The observations were made during entrepreneurship training activities, entrepreneur club activities, student entrepreneurship program selection, and independent entrepreneurial selection activities. The secondary data sources are obtained and collected from the compilation and processing of data in the form of research results, papers, publications, and documents related to the object of this research. In this study, in-depth interviews were used to collect data through case studies. In the selection of qualitative research cases, data collection and research questions are important. Interviews were conducted involving all components in the entrepreneurial ecosystem at the university.

Data analysis techniques are carried out by stages, including data reduction, data display, and verification and conclusions. The analysis is carried out using an interactive analysis model, which is a series of interrelated links since the research was designed, verified and drawn conclusions.

## **FINDING AND DISCUSSION**

### **Entrepreneurship Improvement Efforts at the University**

The atmosphere of entrepreneurship in a university is formed because of a conducive entrepreneurial ecosystem. The existence of an entrepreneurial ecosystem besides being able to increase opportunities for the creation of new innovations and businesses, also allows students to learn more closely with the business world. The entrepreneurial ecosystem, as explained by Mueller & Toutain (2015), can be formed starting from the school environment. Students will feel the impact of the development of the entrepreneurial ecosystem during and after they finish their education at the school. Entrepreneurship ecosystems in universities can be formed, one of which is by strong collaboration between faculties within the university. Collaboration between faculties is needed because each faculty has different areas of strength. Each faculty has its own advantages, where if collaborated, innovation will be formed with strong business value.

Efforts to instill the spirit and entrepreneurial spirit in the university continue to be promoted and improved, of course with various methods and strategies that make students interested in entrepreneurship. There are at least six attempts to increase the entrepreneurial echo for students.

#### **1. Business Incubator Center (BIC):**

Business Incubator Centers carry out incubation programs. The business incubator is an institution that moves to carry out incubation processes for new tenants on a small scale. The incubation process through variously integrated coaching can include the provision of workplaces, office facilities, training assistance, guidance and consultation, technology research and development, capital assistance and the creation of business networks.

The Business Association Center is aimed more at students who have an interest in opening a business or who already have a business. This institution routinely carries out seminar activities in order to provide motivation for prospective student entrepreneurs. While training activities are aimed at students who will start or open a business or even to students who already have a business. The business assistance activities in addition to students are also aimed at micro, small and medium businesses outside the academic community.

The role of this institution already exists, but a bigger role is actually still needed. There are some students who have businesses, but not because of the role of this institution. In order for this institution to be more optimal, according to Agustina (2011) the coaching techniques must be integrated, the nature of the coaching must be more individualized, and operational according to the developmental stages faced by new entrepreneurs.

## **2. Establishment of Entrepreneurship Center**

Entrepreneurial activities such as discussions and seminars on entrepreneurship motivation besides being carried out by student activity units at the level of study programs are also conducted at the faculty level. They formed a container entrepreneur club which is an association that aims to be able to accommodate entrepreneurial potential in students, a place to exchange ideas and move positive activities related to the business world for students. Entrepreneur clubs also provide educational materials related to business and further foster student interest in entrepreneurship.

Activities from club entrepreneurs, among others, are entrepreneurial behaviours that are held every period of time. In this entrepreneur club business class there is material about business plans and material around the world of entrepreneurship. Another activity of entrepreneur clubs is the bazaar. In business class information distribution is more focused on theory, while bazaar events are more focused on practices where participants can experience and observe what the actual market conditions are like.

Another activity of entrepreneur clubs is business talk. This activity is a dialogue about business in entrepreneurship from resource persons who are experienced in business and entrepreneurship to share knowledge and experience.

## **3. Mandiri Entrepreneurship Program**

Collaboration with Bank Mandiri is carried out in order to create new entrepreneurial candidates from among students. In addition, cooperation is also carried out in the context of training for entrepreneurial lecturers.

The Mandiri Entrepreneurship Program organizes entrepreneurship seminars and independent entrepreneurial competitions. The seminar is held open to all students who are interested in becoming prospective entrepreneurs, while independent entrepreneurial competitions are only intended for students who already have a business. As for the assessment criteria in the competition, among others: First, the quality of individuals that includes individual profiles, the best experiences and awards that have been received in relation to their business; Second, business innovation is unique, new things from the business and products produced; Third, social and environmental impacts that include solutions to environmental problems, empowerment and absorption of human resources, and the use of environmentally friendly raw materials; and Fourth, business capacity related to turnover, implementation of Standard Operational Procedure (SOP), business legality including the organizational structure of the company.

The entrepreneurial categories proposed in this competition include industrial entrepreneurship, service entrepreneurship, trade entrepreneurship, social entrepreneurship, creative entrepreneurship, food entrepreneurship, and technology entrepreneurship. The business period is at least one year.

#### **4. "Impact Entrepreneur" Program**

This program is an initiative that aims to create an empowering figure that promotes social entrepreneurship by activating local power. This program is intended for selected Bidikmisi beneficiary students who have conducted a series of psychological tests. Students are directed to develop themselves with a personal approach in accordance with their capacity.

The "Impact Entrepreneur" program is one of the alumni's contributions in advancing the alma mater through the development of social entrepreneurship. The application of this program refers to the results of research conducted by one of the lecturers related to the 16 stages of activation of social entrepreneurship. This stage is designed to focus on developing human capacity. Applications measure not only tangible aspects of business, such as assets and profits, but also measure intangible aspects, such as social sensitivity, knowledge, skills, and access to resources.

In addition to developing the stages of activation of social entrepreneurship, this program is also directed so that their new businesses can later be based on the potential of their villages and regions of origin. The hope is that the impact of community empowerment will be more extensive and sustainable. This program is very helpful for students, especially Bidikmisi students, to be able to improve their social capacity and entrepreneurship which can have an impact on society.

#### **5. Development of Entrepreneur Student Program (PMW)**

This program provides capital assistance to start entrepreneurship for students so that students can practice entrepreneurship knowledge that has been obtained. PMW is an entrepreneurship program initiated by the Directorate of Higher Education. The implementation of this program is that the Directorate of Higher Education provides capital allocation in the form of subsidies for students who have businesses or business plans. But given the limited funds, the program from the government is "contested" through proposals that must be sent by students.

PMW generally has three main objectives. First, forming the character of student entrepreneurship in the form of an integration process between hard skills and soft skills (knowledge, skills, and personal quality: motivation, attitudes, behavior, traits, values) so that entrepreneurial capacity is formed. Secondly, to encourage the growth of scientific young entrepreneurs. The young entrepreneur is expected to have sufficient provisions in the form of basic entrepreneurship skills obtained through various entrepreneurial programs that he participated in. The adequacy of this knowledge provides provision for university graduates to run a healthy and sustainable business. Third, encourage the establishment and strengthening of entrepreneurship development institutions at universities.

#### **6. Entrepreneurship Priority**

The university has realized the importance of entrepreneurship courses as important things that must be given to students. Entrepreneurship courses are compulsory subjects that must be given to all students. Each study program prepares entrepreneurship courses in one semester. In fact, for study programs such as Business Administration give it in several semesters

accompanied by direct business practice. However, in some entrepreneurship courses, only limited knowledge has not arrived at how to practice in the field.

This awareness was inspired by the courage of one of the American universities, MIT (Massachusetts Institute of Technology), which changed the direction of its university policy from the high Learning Institute and Research University to Entrepreneurial University. Although there are many pros and cons of the policy, for a certain period of time, MIT was able to prove the birth of 4 thousand companies from the hands of its alumni by absorbing 1.1 million workers and a turnover of 232 billion dollars per year.

### **Strategy for Realizing the Entrepreneurship Ecosystem at the University**

University awareness to change the direction of policy is inseparable from inspiration from universities in America, MIT. This policy will have an impact on university graduates who were previously work oriented to become orientation to open a new business field. In accordance with research conducted Campanella et al. (2013) that universities do have a very important role in giving birth to prospective new entrepreneurs. Usually, entrepreneurs who are produced from university graduates according to Jack & Anderson (1999) in addition to having artistic abilities also have entrepreneurial skills.

The importance of the potential of the university in giving birth to prospective new entrepreneurs. Therefore, according to the results of the study Mack & Mayer (2016), an entrepreneurial ecosystem that is conducive to new candidates for entrepreneurship is needed. Some of the strategies undertaken in creating an entrepreneurial ecosystem at the university include:

#### **1. Curriculum Policy**

The curriculum made refers to the needs of national competitiveness, as well as the vision and mission of the university in producing graduates. Changes in vision and mission are needed in order to produce graduates who are able to improve the competitiveness of the nation, namely graduates who are not just looking for work but graduates who are also able to create employment opportunities.

Entrepreneurship based curriculum is a key curriculum that will be a measure of the success of the university in creating highly competitive graduates. They will be able to compete in the world of work or become prospective new entrepreneurs as suggested by Guerrero et al. (2016) namely entrepreneurs who have the ability to innovate.

Success in compiling the curriculum is proven by being the main facilitator of the development of a national level entrepreneurial transformative curriculum organized by British Council Indonesia. British Council Indonesia views the success of developing an entrepreneurial transformative curriculum capable of encouraging an entrepreneurial ecosystem in universities.

The entrepreneurial transformative curriculum uses a design thinking approach in driving entrepreneurship. In short, design thinking is a stepwise approach to creating innovations that are expected to be carried out sustainably. These stages include the process of observation, synthesis,

brainstorming, decision making, prototypes, and innovation. This curriculum with a design thinking approach produces cognitive, affective, and psychomotor abilities that are good for students. On the other hand, this approach is also in line with collaborative scientific development.

## **2. Improving the Quality of Entrepreneurship Lecturers**

Success in the method of entrepreneurship learning is largely determined by the method and experience of the lecturer in teaching. Entrepreneurship lecturers in addition to having scientific abilities from the literature are also included in the training program. The training was held in collaboration with the Business Incubator Program with the Mandiri Entrepreneurial Program from Bank Mandiri.

During the teaching and learning process besides being guided by permanent lecturers, students also receive guidance from entrepreneurship practitioner lecturers. Practitioners, as real business people are given the honor to give their knowledge to students.

## **3. Acceleration of Research Downstream Products**

So far, the results of research conducted at universities are like ivory towers that are far from the reach of the public. The results of lecturers' research assisted by students are only stored or enjoyed by certain circles, namely researchers at the university itself. Even though research conducted at universities should produce benefits that can be used by the community.

The awareness of all components, the downstream products of the research results was carried out with assistance from the aspect of strengthening business aspects by involving all faculty components and banking elements. The mentoring program is carried out intensively every two weeks. The mentoring program includes: mapping technology readiness level, achievement of patents and patents, finding co-founders, business model canvas, brand workshops, product design, and label workshops, calculating cost of goods sold and break event points, partner collaboration, lab testing, strengthening management business, apprenticeship programs, to strengthening information technology.

## **4. Collaboration with other Institutions**

As a university institution that is concerned with the development of entrepreneurship it certainly cannot stand alone to create a conducive entrepreneurial ecosystem. The University conducts various collaborations with other institutions in order to provide convenience for students in opening a business.

The cooperation is carried out with the local government and banking institutions. The regional government makes it easy to administer business licenses established by students, while with the banking sector cooperation is carried out in order to provide credit facilities for students who have businesses. The collaboration between universities and other institutions can be a trigger for students who wish to become young entrepreneurs. Because there are not a few of the students who wish to become entrepreneurs but are constrained by the complexity of arranging permits and providing business capital.



## 5. Awarding Best Entrepreneurship

Best Entrepreneurship award is given to students who already have a business. This event was held routinely as one of the triggers for increasing the entrepreneurial spirit of students. In fact, the event can increase enthusiasm for the students, but in giving the award there still needs to be a variety of categories. This is for more entrepreneurs to emerge from various categories of students.

In addition, giving best entrepreneurship must also involve various components such as university/faculty leaders, business incubator centers, lecturers, and banking institutions. Banking institutions are expected to be able to provide credit to best entrepreneurship winners to further increase their business scale with the assurance of university/faculty leaders.

## CONCLUSION

University graduates who were previously oriented to looking for work, now have begun to shift their orientation to become new entrepreneurs. In fact, there were several students before they graduated already had a business. The existence of this paradigm change is because at the university an entrepreneurial ecosystem was deliberately created. The components involved in the entrepreneurial ecosystem at the university include: the policy of the Directorate of higher education, the policies of the university/faculty leaders in the curriculum, the existence of business incubator centers, downstream research products, lecturers who change the student mindset, and collaboration with other institutions both government institutions and banking institutions. Some things that still need more attention in the entrepreneurial ecosystem at the university include curriculum applications in each study program, optimization of the role of business incubator centers, the collaboration between faculties, and collaboration with banking institutions.

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