# Identifying the Dimension of Entrepreneurial Ecosystem for Promoting Entrepreneurial Intention: A Study in Five Educational-Based Universities in Indonesia

Raya Sulistyowati<sup>1\*</sup>, Angga Martha Mahendra<sup>1</sup>, Farij Ibadil Maula<sup>1</sup>, Septyan Budy Cahya<sup>1</sup>, Putri Hestiningrum<sup>1</sup>, Puspo Dewi Dirgantari<sup>2</sup>, Yulita Pujiharti<sup>3</sup>

<sup>1</sup>Faculty of Economics and Business, Universitas Negeri Surabaya, Indonesia

<sup>2</sup>Faculty of Economics and Business Education, Universitas Pendidikan Indonesia

<sup>3</sup>Faculty of Social Sciences and Humanities Education, IKIP Budi Utomo, Indonesia Corresponding email: rayasulistyowati@unesa.ac.id

Abstract: Entrepreneurship has been recognized among scholars and policy researchers as the driver of economic development. Many studies have identified the strategic role of higher education, especially business education, in increasing students' entrepreneurial intentions. However, the interest in entrepreneurship among students is insufficient. One of the causes of low interest in entrepreneurship among students is the internal or external environment, entrepreneurship learning, practical experience of entrepreneurship, and motivation for entrepreneurship. This study aims to identify the dimension of entrepreneurial ecosystem to promote entrepreneurial intention in several educationalbased universities in Indonesia. Using the qualitative method, the findings indicated that each university may have different nuances in terms of developing an entrepreneurial ecosystem and its impact on students' entrepreneurial intentions. The dimensions of entrepreneurial ecosystems identified in this research include entrepreneurial experience, institutional support, networks and connections, role models, entrepreneurial culture, and the entrepreneurial environment. Thus, it raises implications for the government and educational institutions to infiltrate the programs of other universities to promote entrepreneurial intention.

**Keywords:** Entrepreneurial intention, Entrepreneurial ecosystem, Business intention, Educational-based university

### INTRODUCTION

Poverty is a classic problem faced by the Indonesian economy. One of the reasons is the insufficient number of entrepreneurs, which is only 0.24% of the total population of Indonesia. Some studies mentioned that developing entrepreneurial character as early as possible at all levels of education can enhance the potential of entrepreneurial intention (Faghih et al., 2019; Farhangmehr et al., 2016). In addition, many scholars identify the strategic role of higher education, especially state universities with business education or commerce education study programs, in increasing students' entrepreneurial interest (Soomro & Shah, 2022; Tokila & Tervo, 2011; Paco et al., 2015). Becoming an entrepreneur is a challenging life choice, and for college graduates, it is a place to prove to parents, friends, siblings, and other people that they can be successful in their own business.

At this time, youth populations have been able to choose their way of life or also want to prove that they too can be more successful than their parents, who have

worked for decades, but in fact, their conditions have not changed much. Hence, entrepreneurship has become a form of self-actualization for young people. According to Saberi and Hamdan (2019) and Kusumojanto et al. (2021), interest is a preference and a sense of attachment to a thing or activity without anyone ordering it; thus, interest has the influence to do what is desired for a particular object. Interest in entrepreneurship is a person's preference for entrepreneurship, where interest in entrepreneurship does not only come from someone whose background or ancestry is an entrepreneur but can also come from someone from the surrounding environment, peers, and education (Boubker et al., 2021).

Entrepreneurial ecosystems are an adequate framework for studying the interdependencies and relationships between various actors interacting in complex economic systems, such as individuals, organizations, entities, local, regional, and national institutions, policymakers, and stakeholders in regional contexts (Ribeiro et al., 2018; Morris et al., 2020; Neumeyer & Santo, 2018; Purbasari et al., 2019). The characteristic of every entrepreneurial ecosystem is the symbiotic relationship between different stakeholders (Neumeyer & Corbett, 2017; Purbasari et al., 2020). An entrepreneurial ecosystem consists of a set of individual elements (such as leadership, culture, human capital, markets, and others), which are combined in complex ways. This can be understood as a service network where entrepreneurship is the focus of actions and measures of success (Isenberg, 2010). Several empirical studies show how a good entrepreneurial ecosystem enables the creation of entrepreneurial quality and competitive value creation at the regional level (Purbasari et al., 2019).

Considering the matter of promoting entrepreneurial intention, studies on this theme are also on the rise. For instance, a recent study by Paray and Kumar (2020) performed a study regarding entrepreneurship education and their students' intentions in higher education in India. The study involved several variables, such as gender, course background, and age, to build entrepreneurship education. In addition, a paper from Elnadi and Gheith (2021) concerned students' perceptions of the entrepreneurial ecosystem and captured entrepreneurial self-efficacy as a predictor in Saudi Arabia. Later, Breznitz and Zhang (2019) focused on the enhancement of start-ups among university graduates in China through an entrepreneurial ecosystem.

In the context of Indonesia, the topic is also of growing concern among scholars and academicians. For instance, Blesia et al. (2021) noted that the entrepreneurial education model and entrepreneurial ecosystem promote Indonesian students' intentions. Indeed, some scholars (Baharudin et al., 2021; Kusumojanto et al., 2021) pointed out the need for improvement of university supports and ecosystems for raising interest in entrepreneurship and new business creation among university graduates. The findings from those studies agree that the entrepreneurial ecosystem plays a prominent role in entrepreneurship and suggest involving the form of the entrepreneurial ecosystem in deeper. Hence, the purpose of this study was to determine the factors that influence students' entrepreneurial intentions as seen from the entrepreneurial ecosystem on each campus, as well as the dominance of factors that can be used to increase student entrepreneurial intentions.

The remaining paper is presented below. The next section deals with the methodology used in this qualitative research, followed by results and discussion. The last section concerns with the conclusion, limitations, and future directions.

#### **METHODS**

# **Research Design and Informants**

This research was conducted using descriptive qualitative methods following observation and interview procedures. Viewed from the perspective of the research location, this research is included in the type of field research which seeks to research or conduct observational studies. Observations and interviews were carried out with the aim of finding out students' entrepreneurial intentions through the entrepreneurial ecosystem on several campuses. In this research, the authors act as data collector, planner, implementer of data collection, analyzer, and data interpreter; and at the end of the qualitative research, the researcher will be the reporter of the research results.

This research data was taken from primary data sources, obtained directly through observations at several universities in Indonesia, including Universitas Negeri Surabaya, Universitas Negeri Malang, Universitas Pendidikan Indonesia, Universitas Negeri Jakarta, and Universitas Negeri Medan. The key informants for this study were lecturers who were concerned with entrepreneurship education and actively involved in entrepreneurial activities (see Table 1). In addition, secondary data is in the form of information that will complement primary data, including documents or archives obtained from various sources, company profiles, existing supporting photos, as well as photos produced by authors, as well as data related to this research.

Table 1. Sources of informant data

No	Code	Informant	Information
1	IK1	Key informant 1	Lecturer and practitioner in entrepreneurship
			Universitas Negeri Surabaya
2	IK2	Key informant 2	Lecturer and practitioner in entrepreneurship
			Universitas Negeri Malang
3	IK3	Key informant 3	Lecturer and practitioner in entrepreneurship
			Universitas Pendidikan Indonesia
4	IK4	Key informant 4	Lecturer and practitioner in entrepreneurship
			Universitas Negeri Jakarta
5	IK5	Key informant 5	Lecturer and practitioner in entrepreneurship
			Universitas Negeri Medan

## **Data Analysis**

Data analysis begins with observing and conducting in-depth interviews with informants, namely those who truly understand and know the situation of the research object. After conducting the interviews, data analysis began by transcribing the results of the interviews by playing back the recordings of the interviews, listening carefully, and then writing down the words heard in accordance with what was recorded. After the researcher has written the results of the interview into the

transcript, there are several things that the researcher needs to do in this data analysis, namely data reduction, data display, and data conclusion. For the correctness of the data, several methods were used, including checking the correctness of the information with the informants, discussing it with colleagues, and correcting it under the supervision of supervisors. The analysis of negative cases, namely cases that do not match the research results, extends the research time. In finding the validity of the data findings, researchers used techniques and triangulation methods, including triangulation, source triangulation, situation triangulation, and theory triangulation.

## **RESULTS AND DISCUSSION**

## The Dimension of Entrepreneurial Ecosystem

Based on the research results, the factors that influence entrepreneurial intentions are seen based on the entrepreneurial ecosystem at five former educational-based universities (IKIP). It started with anxiety about seeing the insufficient level of entrepreneurship among students at several campuses that had implemented entrepreneurship education. Thus, it is necessary to improve several aspects of the entrepreneurial ecosystem. The first aspect is entrepreneurial experience. Through interviews and observations, you can explore the entrepreneurial experience that students at each university may have. This may include experience participating in business competitions, running a small business, or contributing to entrepreneurial projects.

The next aspect of the entrepreneurial ecosystem is institutional support. This variable can include the influence and support of universities related to entrepreneurial development. This includes training programs, courses, or business incubators offered by the university and the extent to which students benefit from this support. The next entrepreneurial ecosystem variable is networks and connections. In interviews, authors can explore how students build networks and connections within the entrepreneurial community at their university. The interview resulted in relationships with fellow students, mentors, lecturers, or local entrepreneurs. Furthermore, the role model is identified as a dimension of the entrepreneurial ecosystem. The influence of role models can also be a significant variable. In this case, you can explore the role of lecturers or local entrepreneurs who serve as inspiration or role models for students.

Content analysis can be used to identify elements in the entrepreneurial ecosystem at each university that influence students' entrepreneurial intentions. This may include components such as educational programs, access to capital, mentoring support, and entrepreneurial events. Later, entrepreneurial culture is determined as the dimension of the entrepreneurial ecosystem. Interviews and content analysis can also help in understanding the entrepreneurial culture at each university. This includes the extent to which students feel encouraged and accepted by the idea of becoming entrepreneurs.

Additional findings showed that exploring students' perceptions of the risks and rewards associated with entrepreneurship is important. Indeed, Interviews can be used to find out the entrepreneurial goals of students at each university.

Similarly, the findings from the analysis showed that local environmental influence—the local context around a university can also play an important role in shaping students' entrepreneurial intentions. Through in-depth interviews, authors identify the obstacles and challenges students face in carrying out their entrepreneurial intentions. The data and findings obtained can help these universities optimize their entrepreneurial ecosystem and provide more effective support to students who are interested in becoming entrepreneurs.

## **Promoting Entrepreneurial Intention**

The previous studies (e.g., Wardana et al., 2021; Satriadi et al., 2022), concluded that the influence of entrepreneurial culture is not limited to directing and influencing individuals. Culture consists of the environment, family, and societal institutions that impact the entire individual, if the transformed patterns are considered to be of the same value (Valencia-Arias et al., 2021). Entrepreneurship is an activity that processes, purchases, sells, produces or exchanges goods and services involving people or companies. Business activities generally have the aim of generating profits for survival and collecting sufficient funds for the implementation of the business actor's activities (Kusumojanto & Wulandari, 2021).

As stated by the informant (IK1), there are many students who started doing business in their teens, starting from high school selling credit to doing online business until now. This shows that the environment and teaching provided by the lecturers have an impact on the formation of entrepreneurial intentions. "I assess that the entrepreneurial ecosystem on campus has formed students to increase their entrepreneurial intentions. Apart from that, the existence of entrepreneurship courses also forms an entrepreneurial bazaar activity program and facilitates online opportunities, buying and selling goods, game applications, and cellphones through online market places, such as Bukalapak and Facebook, so that it makes students' intentions increase" (KD-IK1).

Similar findings from the two informants (IK2 and IK3) also revealed that the entrepreneurship ecosystem is running well, as seen by the increasing number of students who are entrepreneurs every year, considering the large number of enthusiastic students participating in the bazaar held on campus in entrepreneurial activities. "The entrepreneurial ecosystem is already running well, with many students selling graduation knick-knacks at graduation, especially since Universitas Negeri Malang is famous for many students selling food and drinks on campus" (KD-IK2; KD-IK3).

However, the result is different with informants (IK4 and IK5), who still assess that the entrepreneurial ecosystem is still low considering that not many students become entrepreneurs but instead become civil servants or private employees. "The entrepreneurship ecosystem is still unable to form entrepreneurial intentions considering that students are still tempted by promising jobs, namely as employees, and are still afraid of facing the risks of entrepreneurship" (KD-IK4; KD-IK5). From the results of interviews with key informants above, this statement is in line with Windapo (2018) that the factors that influence a person's entrepreneurial spirit are apart from internal factors, such as talents or traits that are innate from birth or hereditary factors, perhaps also because they are formed by factors.

Relevant to the previous statement, the findings are in agreement with some researchers (Ambad & Diana, 2016; Maes et al., 2014; Shi et al., 2020) stating that personal attitudes, perceived behavioral control, and relational support are perceived as predictors of entrepreneurial intention. Support for small-scale practice in business with friends. There is a business team at school that can be invited to collaborate in entrepreneurship. There is encouragement from parents and family to become entrepreneurs, and there was experience in entrepreneurship before they were students. In addition, the condition of the entrepreneurial ecosystem at various universities can vary depending on various factors, including support from the government, university policies, staff and student commitment, and available infrastructure. The resume of the entrepreneurial ecosystem at the several universities in Indonesia is provided in Table 2.

**Table 2.** Different programs of entrepreneurship education and business incubator

Table 2. Different programs of entrepreneursing education and business incubator					
University	Entrepreneurship Education	Business Incubator			
Unesa	Unesa has entrepreneurship	Unesa has business incubators or			
	programs that engage students in	innovation centers that support			
	entrepreneurial learning and	students in developing business			
	training	ideas			
UM	UM can offer entrepreneurship and	UM has an incubator or accelerator			
	training programs that support	facility that assists student startups			
	students who want to start a	in growing their business			
	business.				
UPI	UPI has an entrepreneurship	UPI can collaborate with regional or			
	education program integrated into	national governments to support			
	their curriculum	student entrepreneurship			
UNJ	UNJ may have integrated elements of	Cooperation with private			
	entrepreneurship in their	companies can provide			
	curriculum	opportunities for students to			
**		participate in business projects.			
Unimed	This university has adopted a strong	Entrepreneurial culture may be			
	entrepreneurial approach in their	promoted through various			
	environment	programs and activities			
	sa=Universitas Negeri Surabaya;	UM=Universitas Negeri Malang;			
UPI=Universitas Pendidikan Indonesia; UNJ=Universitas Negeri Jakarta;					
Unimed=Universitas Negeri Medan					

In addition to having different programs of entrepreneurship education and business incubators, some universities have advantages in various terms of the entrepreneurial ecosystem. For instance, Unesa has industrial collaboration—close links with local industry can provide opportunities for students to intern, collaborate on business projects, and gain industry insights. In addition, UM has beneficial alumni support. The UM alumni network can help students get mentorship and support from successful entrepreneurs. UPI promotes a resource center that connects students with entrepreneurs and entrepreneurial resources, as well as collaboration with the government. On the other hand, UNJ students can be involved in entrepreneurial activities such as business competitions or entrepreneurship support events. Lastly, Unimed may have resources and funding to assist interested students in starting their own business.

#### **CONCLUSION**

From several informants' statements and their connection with the theories and research results of experts, it can be concluded that the conditions of the entrepreneurial ecosystem can develop and change over time. The dimensions of entrepreneurial ecosystems identified in this research include entrepreneurial experience, institutional support, networks and connections, role models, entrepreneurial culture, and the entrepreneurial environment. This condition can also be influenced by factors such as economic developments, policy changes, and encouragement from related parties. From this study, several practical implications can be provided. First, there is a need for curriculum development. The university is expected to continue to develop a strong and relevant entrepreneurship curriculum, which includes practical training and the application of business concepts.

The second is strengthening cooperation between parties. Universities can strengthen cooperation with industry, government, and the private sector to provide students with opportunities for internships, joint business projects, and hands-on experience. The third is mentoring and networking. Mentorship facilities provided by successful entrepreneurs and building a strong entrepreneurial network will assist students in developing business ideas and getting support. Fourth is Support for Startups: Continue to invest in business incubators and accelerators, as well as facilitate student access to seed funding and technical mentorship.

Later, promotion of entrepreneurship is prominent. Continue to promote the culture of entrepreneurship among students by organizing events, seminars, and entrepreneurship competitions. Sixth is evaluation and improvement. Carry out regular evaluations of existing entrepreneurship programs and update them according to student needs and changes in the business world. Lastly, it is related to additional funding. Seek additional external funding, either in the form of grants or investments, to support entrepreneurship programs. By taking appropriate actions and continuing to promote the development of the entrepreneurial ecosystem, these universities can provide a strong impetus for their students to become successful entrepreneurs and contribute to local and national economic growth.

#### REFERENCES

- Ambad, S. N. A., & Damit, D. H. D. A. (2016). Determinants of entrepreneurial intention among undergraduate students in Malaysia. Procedia Economics and Finance, 37, 108-114.
- Baharuddin, G., & Ab Rahman, A. (2021). What is the most effective antecedent for developing entrepreneurial intention among Muslim youth in Indonesia?. *Entrepreneurial Business and Economics Review*, 9(1), 75–88.
- Blesia, J. U., Iek, M., Ratang, W., & Hutajulu, H. (2021). Developing an entrepreneurship model to increase students' entrepreneurial skills: An action research project in a higher education institution in Indonesia. Systemic Practice and Action Research, 34, 53-70.

- Boubker, O., Arroud, M., & Ouajdouni, A. (2021). Entrepreneurship education versus management students' entrepreneurial intentions. A PLS-SEM approach. The International Journal of Management Education, 19(1), 100450.
- Breznitz, S. M., & Zhang, Q. (2019). Fostering the growth of student start-ups from university accelerators: An entrepreneurial ecosystem perspective. Industrial and Corporate Change, 28(4), 855-873.
- Do Paço, A., Ferreira, J. M., Raposo, M., Rodrigues, R. G., & Dinis, A. (2015). Entrepreneurial intentions: is education enough?. *International Entrepreneurship and Management Journal*, 11(1), 57–75.
- Elnadi, M., & Gheith, M. H. (2021). Entrepreneurial ecosystem, entrepreneurial self-efficacy, and entrepreneurial intention in higher education: Evidence from Saudi Arabia. *The International Journal of Management Education, 19*(1), 100458.
- Faghih, N., Bonyadi, E., & Sarreshtehdari, L. (2019). Global entrepreneurship capacity and entrepreneurial attitude indexing based on the global entrepreneurship monitor (GEM) dataset. In *Globalization and Development* (pp. 13–55). Springer, Cham.
- Farhangmehr, M., Gonçalves, P., & Sarmento, M. (2016). Predicting entrepreneurial motivation among university students: The role of entrepreneurship education. *Education+ Training*, 58(7/8), 861–881
- Isenberg, D. J. (2010). How to start an entrepreneurial revolution. *Harvard Business Review*, 88(6), 40–50.
- Kusumojanto, D. D., & Wulandari, A. (2021). Does Teaching Factory Matter for Vocational School Students?. *JPBM (Jurnal Pendidikan Bisnis dan Manajemen)*, 6(3), 146–155.
- Kusumojanto, D. D., Wibowo, A., Kustiandi, J., & Narmaditya, B. S. (2021). Do entrepreneurship education and environment promote students' entrepreneurial intention? the role of entrepreneurial attitude. *Cogent Education*, 8(1), 1948660
- Maes, J., Leroy, H., & Sels, L. (2014). Gender differences in entrepreneurial intentions: A TPB multi-group analysis at factor and indicator level. *European Management Journal*, 32(5), 784–794.
- Morris, M. H., Kuratko, D. F., Audretsch, D. B., & Santos, S. (2020). Overcoming the liability of poorness: disadvantage, fragility, and the poverty entrepreneur. *Small Business Economics*, 1–15.
- Neumeyer, X., & Corbett, A. C. (2017). Entrepreneurial ecosystems: Weak metaphor or genuine concept?. In The great debates in entrepreneurship (Vol. 27, pp. 35–45). Emerald Publishing Limited.
- Neumeyer, X., & Santos, S. C. (2018). Sustainable business models, venture typologies, and entrepreneurial ecosystems: A social network perspective. *Journal of Cleaner Production*, *172*, 4565–4579.
- Paray, Z. A., & Kumar, S. (2020). Does entrepreneurship education influence entrepreneurial intention among students in HEI's? The role of age, gender and degree background. *Journal of International Education in Business, 13*(1), 55–72.

- Purbasari, R., Wijaya, C., & Rahayu, N. (2019). Interaction of actors and factors in entrepreneurial ecosystem: Indonesian creatives industries. International *Journal of Entrepreneurship, 23(1), 13–21.*
- Ribeiro, A. T. V. B., Uechi, J. N., & Plonski, G. A. (2018). Building builders: entrepreneurship education from an ecosystem perspective at MIT. Triple Helix, 5(1), 1-20.
- Saberi, M., & Hamdan, A. (2019). The moderating role of governmental support in the relationship between entrepreneurship and economic growth. *Journal of* Entrepreneurship in Emerging Economies, 11(2), 200-216
- Satriadi, S., Almaududi Ausat, A. M., Heryadi, D. Y., Widjaja, W., & Sari, A. R. (2022). Determinants of entrepreneurial intention: A study on Indonesian students. Bisnis & Birokrasi: Jurnal Ilmu Administrasi dan Organisasi, 29(3), 3–17.
- Shi, Y., Yuan, T., Bell, R., & Wang, J. (2020). Investigating the relationship between creativity and entrepreneurial intention: the moderating role of creativity in the theory of planned behavior. Frontiers in Psychology, 11, 1209.
- Soomro, B. A., & Shah, N. (2022). Entrepreneurship education, entrepreneurial selfefficacy, need for achievement and entrepreneurial intention among commerce students in Pakistan. Education+ Training, 64(1), 107-125.
- Tokila, A. and Tervo, H., 2011. Regional differences in returns to education for entrepreneurs versus wage earners. The Annals of Regional Science, 47(3), 689-710.
- Valencia-Arias, A., Arango-Botero, D., & Sánchez-Torres, J. A. (2022). Promoting entrepreneurship based university students' on perceptions entrepreneurial attitude, university environment, entrepreneurial culture and entrepreneurial training. Higher Education, Skills and Work-Based Learning, *12*(2), 328–345.
- Wardana, L. W., Narmaditya, B. S., Wibowo, A., Saraswati, T. T., & Indriani, R. (2021). Drivers of entrepreneurial intention among economics students in Indonesia. *Entrepreneurial Business & Economics Review, 9(1), 23–33.*
- Windapo, A. (2018). Entrepreneurial factors affecting the sustainable growth and success of a South African construction company. *Sustainability*, 10(4), 1276.