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The Importance Level of the Entrepreneurship Ecosystem in Different Phases of Entrepreneurship Activity: Evidence from GEM Data

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The entrepreneurship ecosystem plays as supporting, driving, or even limiting roles for someone to become an entrepreneur. There are three main components in the GEM research model, namely the entrepreneurship ecosystem, entrepreneurship attitude and aspiration, and entrepreneurship activity. The GEM model has been used to analyze the entrepreneurship ecosystem for Indonesian entrepreneurs in 2015-2016. The entrepreneurship ecosystem in Indonesia is believed to drive and support entrepreneurship. The result shows that there are different conditions faced by the entrepreneurs at different stages. This paper aims to analyze entrepreneurship ecosystem in different phases of their activities.

Keywords: *entrepreneurship ecosystem, entrepreneurship model, entrepreneurship attitude, aspiration, GEM, importance level.*

1. Introduction

Entrepreneurship is believed to be an effective mechanism for the country to gain socio-economic development, in the social, cultural, and political context[1], including new job creation, innovation, and social value creation. Individuals in relation to their environment perform their activity to gain a better life, either economically or politically. The resulting entrepreneurship activity is motivated by the entrepreneurial spirit, which contains entrepreneurial attitude, aspiration, and activity[2]. This activity requires attitude and aspiration, but then the entrepreneurship activities are supported by entrepreneurship ecosystem[3]. Hence understanding the entrepreneurship ecosystem becomes a necessity to develop a good entrepreneurship.

The entrepreneurship ecosystem[4] is defined as a dynamic community within a geographic region, composed of varied and inter-dependent actors, factors, and processes that evolve over time and whose actors and factors coexist and interact to promote new enterprise creation.

This paper aims to compare the entrepreneurship ecosystem in different phases of entrepreneurship activities, with the research question “What is the importance level of the entrepreneurship ecosystem according to the entrepreneur's perception in a different phase of their activities?”

2. The GEM Entrepreneurship model

There is no single definition of entrepreneurship, but there is a widely accepted definition that entrepreneurship is about creating something new, e.g., new business creation[5]. The Global Entrepreneurship Monitor (GEM) has developed a conceptual framework that identifies essential elements of the relationship between entrepreneurship and economic growth and the way these elements interact with each other[1]. The conceptual framework incorporates three main components[6] that capture aspects of entrepreneurial framework conditions (ecosystem); entrepreneurial opportunities and capacity, and entrepreneurial activity.

The entrepreneurship ecosystem in the GEM model consists of entrepreneurial framework conditions[7]. The entrepreneurship ecosystem measures supporting environment factors for entrepreneurs in running and developing their ventures. The GEM defines nine entrepreneurial framework conditions[7] (EFC), namely (A) financial support, (B) government policy, (C) government entrepreneurship programs, (D) education and training, (E) research and development transfer, (F) commercial and professional infrastructure, (G) market openness, (H) physical infrastructure, and (I) cultural and social norms. The entrepreneurship activity's phase in the GEM model is defined by some phases, initially growing in its intention to initiate early activity (nascent and new business up to 3.5 years ventures), and finally blossoming into an established business. The surviving entrepreneurs (more than 3.5 years) are considered to be owning and managing an established business.

The data was collected in 2015 and 2016 from 405 entrepreneurs, containing 51.3% of male and 48.7% female entrepreneurs. The entrepreneurs' ages were 18% of 18-24 year-olds, 32.4% of 25-34 year-olds, 22.8% of 35-44 year-olds, 21.5% of 45-54 year-olds, and 5.3% of 55-64 year-olds. This entrepreneur profile shows a balance between male and female entrepreneurs, but the entrepreneurs' age mostly falls within the category of 25-34 year-olds. The entrepreneurs were collected from major cities in Indonesia, namely Banda Aceh, Medan, Padang, Pekanbaru, Palembang, Bandar Lampung, Serang, Jakarta, Bandung, Semarang and Surakarta, Surabaya, Denpasar, Mataram, Kupang, Pontianak, Makassar, Banjarmasin, Manado, Palu, Ambon, Jayapura, and Yogyakarta. The selected entrepreneurs were categorized into nascent, baby/new business, and established business, and the researchers measured their perception of the entrepreneur's ecosystem. The research question was answered using the method of principal component analysis. The importance level is represented by its principal components, namely the first principal component as the most important, the second component as moderate important, and the third component as less important.

3. Results and Discussion

Categorizing the entrepreneurs according to their phase it found that 16.5% are nascent entrepreneurs, 34.5% form a new/baby business, and 48.9% form an established business. The activities of the nascent and new business entrepreneurs were considered as early entrepreneurship activities, lasting up to 42 months[7]. If the entrepreneurs succeeded into surviving beyond 42 months, then they are considered as having an established business, starting to earn wages from their business. The type of their business was involving the early entrepreneurship activities was classified, namely 3.2% extractive, 17.8% transforming, 8.4% services, and 70.7% consumer oriented. Meanwhile, the established businesses were classified into 5.2% extractive, 16.7% transforming, 15.2% services, and 62.9% consumer-oriented.

Table 1. The First three importance level of entrepreneurship ecosystem in different phases

Phase of Business	**Importance level**	**Entrepreneurship Ecosystem**								
		A	**B**	**C**	**D**	**E**	**F**	**G**	**H**	**I**
Nascent	**Most**	**x**	**x**		**x**					
	Moderate					x		x		x
	Less			x					x	
Baby	**Most**		**x**		**x**	**x**	**x**	**x**		
	Moderate			x					x	x
	Less	x								
Established	**Most**	**x**	**x**	**x**		**x**			**x**	
	Moderate						x	x		x
	Less				x					

Note: (**A**) financial support, (**B**) government policy, (**C**) government entrepreneurship programs, (**D**) education and training, (**E**) research and development transfer, (**F**) commercial and professional infrastructure, (**G**) market openness, (**H**) physical infrastructure, and (**I**) cultural and social norms.

Source: SPSS Principal Component Output.

The importance level of entrepreneurship ecosystem for each phase of their activities was determined by applying the principal component analysis for each phase. The phases are classified into nascent, baby business and established. The result is shown in Table 1, which indicated the importance level of the entrepreneurship ecosystem, where the dark grey indicates the most important, the light grey indicates the moderately important, and the white indicates the less important. It is found that financial support is not the first principal factor for the nascent, but it has come up in the second principal factors. As for the baby business, the first principal factors are market openness and physical infrastructures, and for the established business, the first principal factors are physical infrastructures, consistency of government policy, taxes, regulations, and financial support.

These findings reveal that financial support is essential for starting up a business (for nascent entrepreneurs) and also to develop the business (for established businesses), while the baby entrepreneurs require access to the market and a good physical infrastructure to be sustainable. All entrepreneurs need firm and definite regulations to support their business; this is shown by the B framework condition being the principal factor (most important) for all nascent, baby and established businesses.

Innovation or research and development (R&D) transfer (E framework) is not very important for nascent entrepreneurs, but it is one of the most important factors for baby and established businesses. Innovation that represents the support for creating new products and new technologies, including the use of proprietary technology is important when a business is entering the world of real competition. The competitiveness and the strategies to win the competition are more important for those who have been operating the business more than 3 months (where nascent ones have just started their businesses up to three months). This issue is an alarming message for Indonesia. Based on the Global Entrepreneurship Index of 2017, Indonesia has a very low absorption of technology, commenting to a value of 0.03 and this has been mentioned as the weakest area in Indonesian entrepreneurship[8]. Hence, to improve the entrepreneurial climate and to strengthen the entrepreneurship ecosystem, it is important to prioritize the enforcement of policies and programs in the R&D transfer.

4. Conclusion

The entrepreneurship ecosystem should be managed as a supporting driver for entrepreneurs, and not as limiting factors for entrepreneurs. Identifying the entrepreneurship ecosystem for each phase gives important information for policymakers or entrepreneurs themselves. The result indicates different principal factors for each entrepreneurship phase. The principal factors of the entrepreneurship ecosystem for nascent entrepreneurs have mostly been dominated by government policies, bureaucracy, regulation, licensing, education and training. The baby business mostly considered market openness and physical infrastructures, and for the established business the first principal factors have been physical infrastructures, consistency of government policy, taxes, regulations, and financial support.

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