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EXPLORING THE FACTORS DETERMINING THE SUCCESS OF ENTREPRENEURSHIP EDUCATION PROGRAM: CASE OF INDONESIA

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ABSTRACT

Unemployment is known to be a highlighted problem in Indonesia due to the high percentage of the unemployed population. In overcoming this situation, instant solutions are carried out by several universities within the country, utilizing the media to produce superior and competitive human resources thus leading to more employment opportunities. Based on this condition, one notable breakthrough in overcoming the issue of unemployment is the improvement of entrepreneurship education programs. Therefore, this study aims to identify the factors for determining the success of entrepreneurship education programs, in respect to higher education in Indonesia. A quantitative study method with a correlational approach were used. The subjects were selected randomly from all Indonesian universities using the cluster sampling technique. As many as 207 respondents were selected from ten categories representing Eastern, Central, and Western Indonesia. Furthermore, exploratory factor analysis was used to identify the dominant variable in the process of determining the success of entrepreneurship programs for higher education. The results showed that five principal factors affected the success of these programs, namely: (1) Institutional Commitment, (2) Entrepreneurial Climate, (3) Main Activities, (4) Supporting Activities, (5) Infrastructures and Facilities. By improving the entrepreneurship education program, the higher institution is expected to instill a value system that encourages entrepreneurial culture among students. This value system is based on addressing the problems of unemployment, as well as to encourage them to become entrepreneurial professionals.

Keywords: **Entrepreneurship Education, Entrepreneurial Culture, Institutional Commitment**

INTRODUCTION

Entrepreneurship is the motivator of economic growth in past decades due to its ability to improve the quality of life, create new employment opportunities, and develop the modern economy (Anosike, 2019; Kazakeviciute, Urbone & Petraite, 2016; Wales, 2016). This has led to the observation of entrepreneurial innovations by The Kauffman Foundation, such as the economic growth in several countries, such as China, Israel, Ireland, Turkey, and India (Fairlie, Desai, & Herrmann, 2019; Sánchez-García et al., 2017). As the driver of development, the relevance of entrepreneurship to economic output and employment opportunity creation is importantly increasing (Henry, Hill, & Leitch, 2017; Walter, & Block, 2016). In the Asia continent, this phenomenon was observed to occur in China. The study conducted by the Global Entrepreneurship Monitor (GEM, 2019), showed that the impact of entrepreneurship and national innovations on Chinese employment expectation was ranked 23rd and 12th out of 48 countries, respectively. Meanwhile, Indonesia ranked 48th and 40th out of 48 for employment prospects and innovation respectively (Bosma & Kelley, 2019).

Indonesia is presently ranked 4th in the GEM National Entrepreneurship Context Index (Bosma & Kelley, 2019), as evaluation shows that these ideal conditions should develop the country's entrepreneurship awareness and intensity. However, the ranking of employment opportunities indicated that entrepreneurial innovations have not provided proper expectations. Despite the support from all entrepreneurial framework conditions in encouraging the growth of new entrepreneurs in Indonesia, the population realized was only 2% in growth. For that reason, a 4% entrepreneurial ratio is required among the population of the country (Bisnis.tempo.co, 2019), hence causing a high unemployment rate.

The experience from various countries in reducing the rate of unemployment through entrepreneurship showed that the construction of a nation's entrepreneurial mentality was crucial and should be conducted soon in Indonesia. Therefore, entrepreneurship education is considered as a subject to be taught to students at all educational levels, especially in higher institutions. Moreover, the Presidential Instruction No. 4 of 1995, encouraged the National Movement to Promote and Cultivate Entrepreneurship in mandating all Indonesian citizens to develop entrepreneurial programs. At the international level, the campaign to promote entrepreneurship was carried out through the GEW (Global Entrepreneurship Week), which began in the United States in 2007, accompanied by the United Kingdom and other countries including Indonesia. In 2011, the Indonesian government launched a program to develop an entrepreneurial culture through the National Entrepreneurship Movement (Gerakan Kewirausahaan Nasional/GKN), with the expectation of reducing poverty and unemployment. The active roles of young entrepreneurs are expected to provide changes and renewals (Hills & Morris, 2018) as a new strategy of economic development through the creation of employment. Furthermore, the entrepreneurship culture development stimulates the higher institutions to design entrepreneurial mentality through training and courses for students. However, entrepreneurial education through courses is yet to improve the attitudes and interests of students. The final entrepreneurial target of 2% has reportedly been achieved from the present population through the launch of GKN in 2011 (BPS, 2019; Bisnis.tempo.co, 2019). This triggered the support of government and private institutions for community and student-based entrepreneurship education programs. As a producer of human intellectual resource, higher education became the target to implement the entrepreneurship programs from several provider institutions especially DIKTI (General Director for Higher Education). However, not all universities have well-planned and well-designed entrepreneurial programs. This indicates that the National Movement to Promote and Cultivate Entrepreneurship and GKN has not yet shown encouraging results.

The target of 4% entrepreneurs from the population (around 11 million) and graduated with entrepreneurial awareness, mentality, and success has also not been realized (Hu et al., 2018; Ghasemi & Rowshan, 2016; Tang et al., 2012). These results were shown by the preliminary study conducted on both Natural and Social Science students, indicating low scores in entrepreneurial interests (57 out of 100). Moreover, problems are beginning to become more complex as the digital era demands varied work fields (World Economic Forum, 2018) and requires the ability to work with different technologies, such as IT (Information technology) (Hamburg & Vladut, 2018; Hussin,

2019;). Also, higher institutions did not prepare their graduates with the needed advantages to enter the present globalized competitive and entrepreneurial workforces, leading to the uncomfortable situation of unemployment (Siswandari, Susilaningsih, Sumaryati & Muchsini, 2017). Therefore, one notable solution for these institutions is the improvement of policies related to entrepreneurship education and its implementation. It is also essential to encourage instructors in entrepreneurial courses to enhance their teaching and learning methods towards strengthening and implementing entrepreneurship education. These improvements include the effort to increase students' creativity as well as shape their minds and attitudes. This leads to the possession of entrepreneurial mentality by students and being well-prepared towards becoming new entrepreneurs (Deveci & Leino, 2018; Dryer, Gregersen & Christensen, 2011; Hasan, Nabi & Khan, 2017; Hu et al., 2018; Hussin, 2019). It also has a significant impact on reducing the unemployment rate of higher education graduates. Therefore, this study aims to identify the factors determining entrepreneurship education programs' success at higher institutions in Indonesia.

OBJECTIVES/RESEARCH QUESTIONS

Literature Review

Becoming an Entrepreneur is a Cure for Unemployment

The high unemployment rate of tertiary education graduates is observed to be the problem emerging from the low increase of entrepreneurs in Indonesia. This issue was observed by the average rate of 5.4% (Central Intelligence Agency, 2019), which is found to be continuously increasing yearly. This unemployment rate increased by approximately 7 and 22% between 2016-2017 and 2017-2018, respectively (BPS, 2019), as shown in Table 1.

Table 1
Open Unemployment Based On The Education Level (2016 – 2018)

Education levels:	Feb 2016	Agt 2016	Feb 2017	Agt 2017	Feb 2018
Never attended school	94,293	59,346	92,331	62,984	42,039
/not yet graduated from elementary school	557,418	384,069	546,897	404,435	446,812
Elementary School	1.218.954	1.035.731	1.292.234	904,561	967,630
Middle School	1.313.815	1.294.483	1.281.240	1.274.417	1.249.761
General High School	1.546.699	1.950.626	1.552.894	1.910.829	1.650.636
Vocational High School	1.348.327	1.520.549	1.383.022	1.621.402	1.424.428
Academy/Diploma	249,362	219,736	249,705	242,937	300,845
University	695,304	567,235	606,939	618,758	789,113
Total	7.024.172	7.031.775	7.005.262	7.005.262	6.871.264

Note. From *"Pengangguran Terbuka Menurut Pendidikan Tertinggi yang Ditamatkan*. BPS. http://www.bps.go.id

Based on Table 1, the issues of unemployment, low entrepreneurial awareness, attitude, and interest, as well as other various demands are likely to be solved by implementing a good entrepreneurship program (Hu et al., 2018; Ghasemi & Rowshan, 2016). This should be based on the best practices and rigorously examined future projections as it has a positive impact on entrepreneurial outcomes. Therefore, entrepreneurship education is essential in creating employment opportunities within the society (Anosike, 2019; Hills & Morris, 2018).

Although the primary responsibility for unemployment lies in the government, higher institutions still had a significant role regarding their enormous human resource output (the graduates). This is due to their roles as the agents of change (Peer & Stoeglehner, 2013; Stephens, 2008). These institutions are expected to instill a value system through entrepreneurship programs as well as to encourage cultural development among students to become professionals with an adequate entrepreneurial spirit and attitude (Sánchez-García, Hernández, Flórez, Saraiva, and Gabriel, 2019; Deveci & Leino, 2018; Hasan, Prophet, & Khan. 2017). Therefore, the development of

entrepreneurship for educated people should be improved. The development of entrepreneurship awareness for graduates encourages economic growth as well as strengthens the domestic foundations and primary sectors of the economy which is directly related to the common public. In addition, entrepreneurship education is expected to reduce the rate of unemployment and encourage economic activities that are non-reliant on natural resource exploitation.

Entrepreneurship and Entrepreneur

The definition of entrepreneurship is still being debated and developed, although it had been used in various businesses for over two centuries. Several perspectives have been observed for this phenomenon (Morris, Lewis & Sexton, 1994) with seven of them commonly utilized by experts. These include the *creations of wealth, enterprise, innovation, change, employment, value,* and *growth* respectively (Deveci & Leino, 2018; Hasan, Nabi & Khan, 2017; Hussain, Shah & Memon, 2016), as shown in Table 2.

Table 2
Seven Perspectives on the Nature of Entrepreneurship

Creation of Wealth	Entrepreneurship involves the assumption of risk associated with the facilitation of production, in exchange for profit.
Creation of Enterprise	Entrepreneurship entails the establishment of a new business venture where none previously existed
Creation of Innovation	Entrepreneurship is concerned with the unique combination of resources making existing methods or products obsolete.
Creation of Change	Entrepreneurship involves the creation of change through the adjustment and modification of repertoire, approaches, and skills, to meet different available environmental opportunities.
Creation of Employment	Entrepreneurship is concerned with employing, managing, and developing production factors, including the labor force.
Creation of Value	Entrepreneurship is a process of creating value for customers, by exploiting untapped opportunities.
Creation of Growth	Entrepreneurship is defined as a strong and positive orientation towards growth in sales, income, assets, and employment.

Note. From "Entrepreneurship Education: A Conceptual Model and Review", by Hills, G. E., & Morris, M. H, 2018, *Educating entrepreneurs for wealth creation* (pp. 38–53)

In the beginning, economists defined entrepreneurs as personnel who are willing to bear risks, provide capital, make decisions, and coordinate production factors. Meanwhile, an entrepreneur is generally defined as an individual willing to devote time and effort in taking risks under uncertain conditions, to create or introduce new valuable products or ideas (innovations). By carrying out these activities, satisfaction and profit are being obtained (Deveci & Leino, 2018; Hasan, Nabi & Khan, 2017; Hahn, Minola, Van Gils & Huybrechts, 2017; Hussain, Shah & Memon, 2016). Based on the existence of entrepreneurship in various professions, an individual with an entrepreneurial spirit is likely to be solely or organizationally established and managed. These new ideas further elaborate entrepreneurship into two classes, namely "intrapreneurs" and "entrepreneurs." An intrapreneur is found to act as an originator (creator) or inventor turning any ideas into a profitable reality. In this case, benefits are mainly intended for work within the company or organization. Although entrepreneurs play a similar role as intrapreneurs, their business orientations are externally developed away from an organization or institution. Therefore, the profits derived from acquiring ideas or new products are solely intended for the company. Based on its existence for over thirty years (Hills, & Morris, 2018), the concept of this phenomenon is known by various terms such as corporate, internal-corporate, strategic entrepreneurship, intrapreneurship, and entrepreneurial management. Corporate entrepreneurship is often associated with entrepreneurial activities in large and well-established organizations (Kazanjian, Drazin, & Glynn, 2017). However, these terms sideline the importance of small organizations'

entrepreneurial activity, due to intrapreneurship and intrapreneurs being often preferred to entrepreneurship and entrepreneurs respectively.

Corporate entrepreneurship (entrepreneurial activity within the organization) is also found to produce new companies through product creation, process innovation, and market development when examined in depth. This term consists of three activities, namely entrepreneurship, intrapreneurship, and exopreneurship (Kreiser et al., 2019). The intrapreneurship activities intended to strengthen the organization are classified into the perspectives of corporate venturing, internal resources, and internationalization. Meanwhile, exopreneurship is related to the perspective of external networks. From this classification, only the intrapreneurship activities are carried out within the organization according to the interpretation for corporate entrepreneurship. Furthermore, intrapreneurship is the entrepreneurial action of individuals within the organization, leading to innovation in products, processes, or services (Antoncic, Antoncic, & Li, 2018; Dentchev et al., 2016). This indicates that intrapreneurs should focus on innovating and realizing their dreams within the organization to generate profits (Razavi & Ab Aziz, 2017). In addition, intrapreneurship is found to occur in small, medium, or large organizations (Antoncic, Antoncic, & Li, 2018).

Based on this study, entrepreneurship refers to both business and corporate entrepreneurial competencies (entrepreneur and intrapreneur). This is because higher institutions encountered difficulties in turning all their students into business entrepreneurs. Through entrepreneurship education, these institutions are likely to create a business, academic, corporate, and social entrepreneurs respectively.

Factors for the Success of Entrepreneurship Education Programs in Higher Education

The efforts and initiatives used to form the success of entrepreneurial attitudes and activities are known as entrepreneurship education programs. These include lectures, training, and other structured supporting activities to help individuals or groups become entrepreneurs (Karimi et al., 2016). However, the entrepreneurial activities in higher institutions, especially innovation, are found to be varied, leading to different results where some were successful and others failed in creating students with entrepreneurship mentality. These failures were reportedly caused by several ineffective implementations (Byun, Sung, Park, & Choi, 2018). In entrepreneurship programs, higher institutions are found to ask or advise students to begin businesses and create a conducive culture for performing entrepreneurial activities. Based on this condition, students are likely to have a positive attitude towards entrepreneurship (Prophet et al., 2017). Therefore, a robust organizational climate that supports this implementation is needed for entrepreneurship innovation development to be properly performed.

The development of an entrepreneurial culture is the prerequisite for successful entrepreneurship education (Akuegwu, & Nwi-Ue, 2016). The strong culture of a conducive or healthy organization is observed in the formal statement of its vision and mission. When the institution has a formal statement of entrepreneurial vision and mission, the administration and management are found to have the corporate values of entrepreneurship, which are maintained and distributed to all levels of organizational structure (Wales, 2016). Therefore, all activities are determined to be entrepreneurially motivated. The organizational structure is also a supporting factor in creating an entrepreneurial environment to help decide and implement opportunities (Sationo & Najah, 2018).

The concept of entrepreneurship education programs began through the motivation of students to act as entrepreneurs, as triggering events provide knowledge and skills, experience, and opportunities (Aldianto, Anggadwita, & Umbara, 2018). This was carried out for them to have adequate entrepreneurial competence which is a long-term construction sustainable through varied activities. Based on the learning experience, this competence is transformed into entrepreneurial knowledge and skills, etc. (Din, Anuar, & Usman, 2016). Furthermore, some experts suggested that entrepreneurship education programs should include lectures on building skills in negotiation, leadership, new and innovative product developments, creative thinking, and technological innovation experience (Akuegwu, & Nwi-Ue, 2016). This indicated that all available resources are required when carrying out entrepreneurial activities (Liu, Kulturel-Konak, & Konak, 2020). These resources include time, finance, human and

social capital, as well as technology. In addition, adequate university facilities and infrastructures are likely to create an entrepreneurial environment, as well as support the implementation of entrepreneurship programs (Byun, Sung, Park, & Choi, 2018).

In navigating the complexity of the entrepreneurship education process, higher institutions used cognitive, affective, experiential, and networking approaches respectively (Scott, Penaluna, & Thompson, 2016). When this orientation is focused on acquiring and structuring knowledge or facilitating psychological, attitude, emotional, and personality changes, cognitive or affective approaches were used. Meanwhile, the experiential approach believed in the continuous change of concepts due to experiences, which are realistically recognized as an essential learning resource for entrepreneurs (Lackéus & Middleton, 2018). Therefore, entrepreneurial learning did not only indicate copying the successes of others or avoiding the failures, it also involved active interpretation based on the experience of students. The networking approach believed that entrepreneurial learners are likely to gain knowledge and skills through internal and external social associations in the organization, such as relationships with suppliers, customers, banks, universities, professional work members, and companies respectively.

Based on these conditions, the entrepreneurship education program aims to nurture entrepreneurial competencies, including the knowledge, skills, and attitudes shown in an individual. These programs require key entrepreneurial and supporting activities, as well as cooperation or involvement of other organizations in the process. In addition, the main activities should be set as a trigger in the early stage and as entrepreneurial knowledge and skills. Meanwhile, supporting activities should focus on the efforts to provide entrepreneurial experiences and opportunities.

METHODS

This is a quantitative study with a correlational approach (Borg & Gall, 2007) selected to identify the dimensions of entrepreneurship education programs at higher institutions in Indonesia. This identification was conducted by implementing the Exploratory Factor Analysis/EFA through the SPSS version 20.

Population and Sample

The regions of higher institutions were divided into three, namely Western, Central, and Eastern Indonesia. These were further grouped into five clusters based on quality, which was assessed regarding the achievement of four parameters,

1. Human Resource.
2. Management.
3. Student Activities.
4. Research and Publications.

The quality of a university was expressed by the total score obtained from the government's assessment of the four parameters. These scores ranged from 0 to 3,743, where the highest indicated the proper management of the institution. All Indonesian universities that met the established criteria and had a total score of ≥ 1,870 were selected as the population (next section's criteria). This score was selected due to being the median mark ([0 + 3,743]/2), with 88 universities qualifying as the population. Meanwhile, the samples were randomly obtained from the three Indonesian regions through the purposive-cluster sampling technique. In this case, the cluster and purposive referred to the region and specific goal respectively. In addition, 30 universities and 207 respondents were obtained as the samples and population, each representing the regions of Western, Central, and Eastern Indonesian.

Criteria for Selecting the Universities

The universities in each selected region had intensive entrepreneurship education programs for students. A university with this program should be selected based on the following: (i) its vision and mission as an entrepreneurial institution, (ii) its consistency in developing entrepreneurial cultures, through lectures, training, or other activities, (iii) having an institution or center for developing an entrepreneurial culture, and (iv) winning various private or governmental awards on entrepreneurship culture development in the last three years.

Respondents

The respondents in this study were obtained from various backgrounds, such as decision-makers and stakeholders related to: (i) the development of entrepreneurship programs or university leaders (Chancellors, Deputy Chancellors, Head of Student Affairs Bureau), (ii) entrepreneurial program development team (Head of the entrepreneurship center and peer group), (iii) lecturers, coaches, facilitators, and instructors of entrepreneurship programs, (iv) students participating in entrepreneurship programs, and (v) alumni of entrepreneurship programs at selected university. The respondents were also selected based on their knowledge, experiences, and future perspectives on the entrepreneurship programs in Higher Education. This population is shown in Table 3.

Table 3
Number of Respondents per University

No.	Universities	n Respondents
1.	Univ1	10
2.	Univ2	10
3.	Univ3	8
4.	Univ4	10
5.	Univ5	5
6.	Univ6	4
7.	Univ7	10
8.	Univ8	2
9.	Univ9	7
10.	Univ10	7
11.	Univ11	8
12.	Univ12	5
13.	Univ13	5
14.	Univ14	6
15.	Univ15	5
16.	Univ16	6
17.	Univ17	6
18.	Univ18	7
19.	Univ19	8
20.	Univ20	8
21.	Univ21	5
22.	Univ22	8
23.	Univ23	6
24.	Univ24	6
25.	Univ25	6
26.	Univ26	10
27.	Univ27	8
28.	Univ28	8
29.	Univ29	8

30.	Univ30	5
	Total	207

Data Collections

Data were collected through the instruments delivered to 30 universities in Indonesia. Excellent communication was ensured between the expert and respondents before the distribution of the instruments. This was conducted to ensure that the instruments were adequately filled and returned. Moreover, the instrument consisted of 27 measurable variables, to determine the success of entrepreneurship education programs in Higher Institutions. The variables within this instrument are,

1. Middle and lower-level leaders' commitments are in line with the top leaders.
2. Leaders have commitments expressed in the vision and mission of the university.
3. Supports are from the *Civitas Académica* in developing entrepreneurship education
4. Coordination between task units to develop the entrepreneurial culture.
5. Entrepreneurship educations are performed in an integrated manner by several task units.
6. Have routine entrepreneurship education programs.
7. Have units responsible for developing the entrepreneurial culture.
8. Entrepreneurial cultures spiritualize all task units.
9. Have the programs to encourage entrepreneurship mentality for new students.
10. Have cooperation with mass media.
11. Have the outlets to market the products produced by the *Civitas Académica*.
12. Have the outlets to showcase the products both on and off-campus.
13. Have cooperation with financial institutions that facilitate start-up capital.
14. Have the teaching industries as the entrepreneurial laboratories.
15. Have cooperation with institutions, organizations, or companies that commit to developing the entrepreneurial culture.
16. Have bulletins or magazines as media of information and promotion.
17. Have business incubators.
18. Have a partnership with the entrepreneurial laboratory companies.
19. Have the task units providing the start-up capital.
20. All students should attend courses on entrepreneurship.
21. Efforts to instil entrepreneurial values are integrated into relevant subjects.
22. Have the programs to encourage entrepreneurship mentality for new students.
23. Organize the entrepreneurship training programs.
24. Have sustainable entrepreneurship programs.
25. Organize the entrepreneurial practice programs.
26. Have a mentoring program for entrepreneurial students.
27. Have the mentoring program for the alumni.

RESULTS

Based on the Explanatory Factor Analysis, all 27 variables were reduced through grouping techniques to test the dominant determinants responsible for the success of entrepreneurship education programs in universities. From the 27 variables analyzed using EFA, the following information was obtained,

1. The feasibility of using factor analysis

Table 4
KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.919
Bartlett's Test of Sphericity	Approx. Chi-Square	3.081E3
	Df	351
	Sig.	.000

The results of the KMO and Bartlett tests showed that the factor analysis was feasible (KMO = 0.919). Since the resulting correlation matrix was not based on identity, the analysis was appropriate.

2. The results of Factor Extraction with Principal Component Analysis

Table 5
Total Variance Explained

	Initial Eigenvalues			Extraction Sums of Squared Loadings		
Component	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	11.256	41.689	41.689	11.256	41.689	41.689
2	1.626	6.023	47.712	1.626	6.023	47.712
3	1.335	4.945	52.657	1.335	4.945	52.657
4	1.244	4.608	57.265	1.244	4.608	57.265
5	1.130	4.185	61.450	1.130	4.185	61.450
6	.964	3.572	65.022			
7	.842	3.120	68.141			
8	.827	3.061	71.203			
9	.715	2.649	73.852			
10	.656	2.428	76.280			
11	.630	2.334	78.614			
12	.615	2.279	80.893			
13	.589	2.183	83.076			
14	.552	2.043	85.119			
15	.485	1.798	86.917			
16	.450	1.667	88.583			
17	.413	1.530	90.113			
18	.386	1.430	91.543			
19	.369	1.367	92.909			
20	.332	1.231	94.140			
21	.293	1.084	95.224			
22	.279	1.033	96.257			
23	.240	.890	97.147			
24	.226	.839	97.986			
25	.212	.784	98.770			
26	.173	.642	99.413			
27	.159	.587	100.000			

Extraction Method: Principal Component Analysis.

The results of factor extraction showed that the 27 measurable variables were grouped into five indicators. This was because the eigenvalues were greater than one (11,256, 1,626, 1,335, 1,244, and 1,130).

3. The results of Rotation using the Varimax with Kaiser Normalization method

Table 6
Rotated Component Matrix [a]

	Component				
	1	2	3	4	5
OM1	.145	.207	.159	.715	.148
OM2	.226	.167	.162	.721	.125
OM3	.140	.096	.111	.583	.275
OM4	.025	.509	.248	.516	-.062
OM5	.333	.619	-.035	.334	.017
OM6	.096	.685	.291	.175	.161
OM7	.342	.706	-.050	.197	.134
PKU1	.389	.586	.186	.025	.234
PKU2	.150	.415	.534	.223	.191
PKU3	.210	-.069	.721	.090	.166
PKU4	.227	.347	.619	.212	.104
PKP1	.347	.374	.492	.162	.083
PKP2	.232	.111	.073	.290	.820
PKP3	.209	.156	.130	.167	.832
PKP4	.305	.409	.400	.074	.554
PKP5	.209	.481	.370	.065	.357
sarpras1	.316	.052	**.594**	.225	-.025
sarpras2	**.510**	.110	.449	.293	.096
sarpras3	**.725**	.138	.201	.235	.119
sarpras4	**.615**	.195	.349	.101	.247
sarpras5	**.533**	.082	.389	.390	.070
sarpras6	.443	.289	.484	-.003	.169
sarpras7	**.624**	.200	.370	.089	.119
KJSM1	**.571**	.366	.130	.269	.216
KJSM2	**.654**	.269	.223	.172	.166
KJSM3	**.820**	.183	.092	.057	.127
KJSM4	**.629**	.199	.275	.115	.206

Extraction Method: Principal Component Analysis.
Rotation Method: Varimax with Kaiser Normalization.
Rotation converged in nine iterations.

Through the rotation of factors, the following results were observed,
F1 was represented by infrastructure 2, 3, 4, 5, and 7, as well as cooperation 1–4.
F2 was represented by organization & management 4, 5, 6, and 7, as well as leading activities (1).

F3 was represented by the main activities 2, 3, and 4, as well as infrastructure 1.
F4 was represented by organization & management 1, 2, and 3.
F5 was represented by supporting activities 2, 3, and 4.

The measured variables (no relatively large loading value) that are not feasible enough to be included in any factor are:

a. Sustainable entrepreneurship programs.
b. Assistance programs for the alumni.
c. Start-up capital providers.

4. Describing the Structure of Factors
Based on the analytical results, the factor structure is described as follows,

Table 7
Factors, Nomenclatures, and Covered Variables

Largest to the smallest coefficient No.	Factors and Nomenclatures				
	F1	F2	F3	F4	F5
	Infrastructure	Entrepreneurial Climate	Main Activities	Institutional Commitments	Supporting Activities
1.	Having cooperation with mass media.	Coordination between task units to develop the entrepreneurial culture.	All students should attend courses on entrepreneurship.	Middle and lower-level leaders' commitments are in line with the top leaders.	Have entrepreneurship training programs.
2.	Have the outlets to market the products produced by the *Civitas Académica*.	Entrepreneurship education programs are performed in an integrated manner by several task units.	Efforts to instill entrepreneurial values are integrated into relevant subjects.	Leaders have commitments expressed in the vision and mission of the university.	Have entrepreneurial practice programs.
3.	Have the outlets to showcase the products both on and off-campus	Have units responsible for developing the entrepreneurial culture.	Have routine entrepreneurship education programs.	Support from the *Civitas Académica* in the development of entrepreneurship education.	Have a mentoring program for entrepreneurial students.
4.	Have the task units providing the start-up capital.	Entrepreneurial culture spiritualize all task units.	The existing laboratories also functioned as entrepreneurial sites.		

5.	Have the teaching industries as the entrepreneurial laboratories.	Have the programs to encourage entrepreneurship mentality for new students.
6.	Have cooperation with institutions, organizations, or companies that commit to developing the entrepreneurial culture.	
7.	Have bulletins or magazines as the media of information and promotion.	
8.	Have business incubators.	
9.	Having a partnership with the companies that become the entrepreneurial laboratory.	

DISCUSSION

Several university graduates in Indonesia did not obtain employment opportunities (Feriyanto, 2016; Sakernas, 2019), as various studies indicated many unemployment causes among educated people, such as the mismatch between the curriculums and acquisition system (Handayani, 2015). This further indicated the mismatches between what is to be learned and needed for employment (Kompas.com, 2019; Effendi, Murni, Gusteti, & Roni, 2019; Song, Huang, & Huang, 2019). Despite the causes, efforts to reduce the educated unemployment should be continuously conducted. One notable logical effort is the improvement of sustainable entrepreneurship programs, starting with the introduction to the new students. This was further accompanied by the entrepreneurship training, business and industrial internship programs, as well as the alumni's mentoring and monitoring services. The results showed that the loading value for this variable was less than 0.50, indicating insignificant support for other factors. In addition, the small loading values (0.083 - 0.492) showed that most universities did not perform sustainable entrepreneurship programs, although they were beneficial for students to confront the uncertain future (Marlborough School, 2019). The creativities of students were continuously developed through quality learning, internships, and mentoring (Dyer, Gregersen & Christensen, 2011). This indicated that the low loading value should broaden the insight of university leaders, to improve sustainable entrepreneurship programs. Also, the instructors or mentors should always increase the entrepreneurial awareness, attitudes, and behaviours of students, as well as encourage them to become better

entrepreneurs. A well-designed policy to improve learn sustainable entrepreneurship programs is also found to have good impacts on entrepreneurial education. This allows students to have an entrepreneurial attitude wherever they work, therefore, leading to a decrease in the rate of unemployment (Deveci & Leino, 2018; Hasan, Nabi & Khan, 2017; Hu et al., 2018; Hussin, 2019; Marlborough School, 2019).

Since 1995, the Indonesian government has reportedly launched programs and movements to promote entrepreneurship, to encourage young people to privately and publicly create jobs. When 10% of graduates periodically become entrepreneurs, approximately 8,000 job seekers are shown to have the ability to create works for others, due to their business beginning to need employees. One notable factor is that entrepreneurship has been recognized as the central motor for economic growth and breakthroughs (innovation), to create new employment opportunities (Anosike, 2019; Sanchez, Garcia & Mayens, 2019; Kazakeviciute, Urbone & Petraite 2016). Despite several graduates becoming entrepreneurs, the rate of those having entrepreneurial attitudes was still low (Bisnis.tempo.co, 2019). This indicated that universities did not produce students and graduates with entrepreneurial mindsets (Susilaningsih. 2015), which was unsurprising due to the results showing low loading values with a score of 0.065 - 0.481 for the variable "Have the mentoring program for the alumni". Based on this condition, the score indicated that Indonesian universities did not conduct mentoring programs for entrepreneurial alumni. Therefore, building relationships and involving alumni in a university's professional education program is very important. This is based on their provision of monetary and non-monetary contributions (Chen, 2018; Egizii, 2015; Snijders et al. l, 2019). However, it is unsurprising to observe that graduates already familiar with entrepreneurship are still reluctant to open a business. This is due to the absence of mentoring programs. It is also caused by the mismatch between what has been studied with individual conditions and students' future skills (Tan, Liu, & Low, 2017; World Economic Forum, 2018). Therefore, several studies aimed to examine the methods to improve entrepreneurial learning quality, through the development of learning techniques and strategies (Deveci & Leino, 2018; Zeng & Honig, 2016).

The universities with entrepreneurship development programs should have well-communicated and clear policies and procedures. These should overcome the barriers to organizational entrepreneurship development, create an entrepreneurial culture, and support sustainable improvement (Sanchez, Garcia & Mayens, 2019). Although the entrepreneurship education programs are implemented as lectures or training, they should also be consistently and continuously organized through various activities. They should also have the explicit goals of entrepreneurial scholarship and knowledge-based entrepreneurs. When universities begin to create entrepreneurial graduates (entrepreneurial employees, entrepreneurs, and academics), the government's condition as the only provider for employment becomes abated. In addition, a very competitive and knowledge-based economy is observed as opportunities for creating new jobs, to suppress the rate of unemployment.

LIMITATION AND FUTURE RESEARCH

The factor of sustainable entrepreneurship programs in this study was not a significant factor in Indonesia's entrepreneurial education. This indicates the necessity of further investigations on the methods by which entrepreneurial education practices occur. In addition, this is one of the study limitations, as it did not explore the sustainable programs that explained entrepreneurship education procedures in Indonesian universities. Another limitation is that the alumni involvement level with universities in entrepreneurship education programs was not explained.

CONCLUSION

Entrepreneurship education involves learning and training, to facilitate the students to use their creativity, as well as incur the initiative, responsibility, and risk. Based on this condition, the program focused on business, as well as equipping students with relevant entrepreneurial knowledge, skills, and attitudes (UNESCO, 2019). Entrepreneurship education in higher Institutions should be interpreted as the construction of entrepreneurial character for business,

academic, corporate, social, and other entrepreneurs, respectively. To support the success of this program, understanding its quality entrepreneurial factors in higher institutions is essentially necessary, as shown in this study. There were 24 factors determining the success of entrepreneurship education programs, as shown in Table 7. Moreover, three factors were found to be very essential, namely: (i) sustainable entrepreneurship programs, (ii) assistance programs for the alumni, and (iii) start-up capital providers. However, statistics were not included in any of these factors. Two of the three factors (sustainable entrepreneurship programs and assistance programs for the alumni) were also related to university policies. Based on the sustainable entrepreneurship programs in universities, the formulation of entrepreneurial attitudes, mentalities, and behaviours require time and continuous efforts. Also, it requires university leadership policies and procedures that were prepared by internal and external stakeholders, to design sustainable entrepreneurship education.

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