

The Analysis of the Relationship between Undergraduate and Diploma Unemployment Level with the Number of Business Incubators of Universities in Indonesia

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Abstract---The number of unemployed universities in Indonesia originating from undergraduate and diploma levels is still high. Unemployment undergraduate and diploma itself can be divided into two categories, there are unemployed undergraduates and diplomas that come from college graduates who have an interest in entrepreneurship and who do not have an interest in entrepreneurship. Business incubators in various universities are more suitable to be directed at reducing the potential for undergraduate and diploma unemployment, which during their time became students who had an interest in entrepreneurship. Unfortunately, the number of tertiary business incubators in Indonesia is currently still limited; it's only 80 universities having business incubators and tenants from the total of 4,504 tertiary units in Indonesia.

Keywords---Entrepreneurship, Employees, Business Incubators, Undergraduate Unemployment And Diplomas

I. INTRODUCTION

Until now, Indonesia is still faced with the problem of the high number of unemployed undergraduates and diplomas, there are unemployment originating from undergraduate and diploma levels. Data from the Central Statistics Agency shows that the number of unemployed undergraduates and diplomas produced in various universities in Indonesia in the last five years can be seen in Table 1 below.

Table1. The Number of Undergraduate and Diploma Unemployment in Indonesia since 2013 – 2017.

The amount of unemployed	Year				
	2013	2014	2015	2016	2017
Undergraduates	500.500	505.000	602.000	632.000	510.000
Diplomas	130.000	140.00	106.200	155.000	120.000
Amount	630.500	645.000	708.200	787.000	630.000

Source: Data from the Central Statistics Agency that has been reprocessed.

Various efforts have been made by the Directorate General of Education from the Ministry of Research and Technology to reduce the number of undergraduate unemployed and diplomas in Indonesia. Since 2008 the

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Directorate General of Higher Education has launched the Entrepreneurship Student Creativity Program (PKM-K) which aims to increase the number of students who become entrepreneurs. These efforts continued and were added with various programs launched by Ministry of Research and Technology, such as the KBMI program, Prospective Technology-Based Beginner Entrepreneurs (CPPBT) and Technology-Based Beginning Companies (PPBT). The entire program aims to create entrepreneurship from students.

These various programs will be more useful to grow student entrepreneurship when the various programs are supported by the presence of business incubators in various universities. In accordance with the Minister of Cooperatives and Small and Medium Enterprises Regulation of the Republic of Indonesia Number 11 of 2013 concerning Norms, Procedures and Criteria for organizing Incubators. The organization of business incubators in universities consists of three phases, there are: the pre-incubation phase, the incubation phase and the post-incubation phase.

The problem arises when the number of business incubators in various universities is currently not comparable with the amount of undergraduate unemployment that must be overcome in Indonesia.

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Another problem arises when the number of students interested in becoming entrepreneurs in various universities in Indonesia is very small. The study conducted by Gina (2016) at various universities that took part in the Mandiri Entrepreneurship Education program which held by Bank Mandiri in Indonesia shows only 8-10% students who are interested in becoming entrepreneurs and the rest are more interested in becoming employees.

This paper will discuss the objective conditions for the number of business incubators currently in Indonesia as a means of supplying college entrepreneurs.

By analysing the two problems above, there will be an estimate of the number of business incubators that must be available to overcome the problem of undergraduate and diploma unemployment who are interested in becoming entrepreneurs in Indonesia.

II. METHODOLOGY

The research method used in this study is descriptive research method (Babbie, 2004) which explains how the objective conditions of the number of business incubators in universities throughout Indonesia. This condition is further related to student entrepreneurship interest which is expressed in the form of a percentage range of students who have an interest in entrepreneurship throughout Indonesia. To clarify the various concepts used in this study, it will be done first is the formulation of operational definitions of each concept as follows:

1. Entrepreneurship is self-employment activities (Bull & Willard, 1993) to take advantage of business opportunities (Gartner, 1998) by collecting and utilizing various resources, forming business organizations and producing or selling goods and services.
2. Employees are activities that work for others by obtaining relatively fixed rewards (Klein & Foss, 2009)

To obtain the amount of business incubators in various universities in Indonesia, the data will be used in this paper issued by the Indonesian Business Incubator Association (AIBI).

Based on the amount of business incubators issued by AIBI, further identification of the amount of tenants who are assisted by each business incubator is followed by the average amount of employees owned by each tenant.

By calculating the amount of tenants fostered by business incubators and the amount of employees for each tenants, it can be estimated that the amount of labour that can be absorbed through business incubator activities in universities.

III. RESULTS

Based on data delivered by the Directorate General of Higher Education Ministry of Research and Technology, in 2018 Indonesia had 4,504 universities. Of the 4,504 unit institutions, 3,136 units are private universities and 122 are state universities. 4,504 tertiary institutions in Indonesia, only 83 universities have business incubators in accordance with data published by the Indonesian Business Incubator Association (AIBI).

Table 2 below presents the number of business incubators in Indonesia along with the average number of tenants and the average number of workers each tenant can absorb.

Table 2: *The number of business incubators for universities, average tenants and number of labour per tenant in 2018.*

Year	The number of University Business Incubators	The averages of tenant	Average Entrepreneurship produced by business incubators in universities
2017	80	12	960
2016	80	11	880
2015	72	9	648

Source: Processed from AIBI and various sources

Based on the data presented in table 2, it can be estimated that the number of entrepreneurs that can be produced by all universities in Indonesia through business incubator activities in the last three years as can be seen in Table 3.

Table 3: *The Estimates of the Number of Student Entrepreneurs that can be made in current university incubators in Indonesia*

Years	The number of University Business Incubators	The averages of tenant	Average Entrepreneurship produced by business incubators in universities
2017	80	12	960
2016	80	11	880

The estimated numbers of students who are interested in become entrepreneurs or in other words employing themselves and not working for other people, has a range of 8-10% of all students. It's assuming that the proportion applies also to the number of undergraduate and diploma unemployed because it comes from the college student population throughout Indonesia. Thus it can be estimated the number of unemployed undergraduates and diplomas who have entrepreneurial interests as presented in Table 4.

Table 4: *The estimated unemployment of Undergraduate and Diploma who have interest in entrepreneurship in Indonesia*

	Year				
	2013	2014	2015	2016	2017
The Number of Undergraduate / Diploma Unemployment	630.500	645.000	708.200	787.000	630.000
Proportion 8%	50.440	51.600	56.656	62.960	50.400
Proportion 9%	56.745	58.050	63.738	70.830	56.700
Proportion 10%	63.0	64.5	70.8	78.7	63.0
	50	00	20	00	00
Average	5674	5805	6373	7083	5670
	5	0	8	0	0

Source: Central Statistics Agency 2018; Gina (2016)

If we compare the data in Table 3 with the data in Table 4, there will be a very large difference between the number of unemployed undergraduates / diplomas who have an interest in entrepreneurship - and the potential to become student entrepreneurs if they undergo a business incubation process in college. - With the number of student entrepreneurs that can be produced by university business incubators throughout Indonesia. Table 5 below presents the deviations between the number of unemployed who have an interest in entrepreneurship and the number of student entrepreneurs that can be produced by various business incubators in Indonesia.

Table 5: The deviations in amount of Undergraduate and Diploma Unemployment that have entrepreneurial Interest with the amount of student entrepreneurs those business incubators can produce in various Indonesian Universities.

	Year		
	2015	2016	2017
The average number of unemployment Bachelor / Diploma	63.738	70.830	56.700
The average of entrepreneurship produced by business incubators in universities	648	880	960
Deviation	63.090	69.950	55.740

The bad situation can be improved when some universities in Indonesia have business incubators. Table 6 presents various scenarios for the number of student entrepreneurs that can be produced by various tertiary institutions in Indonesia, assuming that the business incubator in each university can produce 10 tenants in one year.

Table 6 shows that there will be an increase in the number of student entrepreneurs in line with the increasing number of university business incubators throughout Indonesia.

IV. CONCLUSION

This projection shows that the increase in the number of business incubators in higher education has the potential to be able to reduce unemployment for undergraduates / diplomas that have an interest in entrepreneurship. The problem of unemployed undergraduates who do not have an interest in entrepreneurship still requires an increase in employment that will increase if there is an increase in economic growth and an increase in foreign direct investment in Indonesia.

Table 6. The Estimates of the amount of student entrepreneurs that can be produced in various business incubators of Universities in Indonesia

	The average number of Unemployment Bachelor / Diploma	The average of Entrepreneurship produced by business incubators in universities	Deviation
Baseline 2017	56.700	960	55.740
50% of universities have business incubators		(50% x 4.504 x 10)	
	56.700	22.520	34.180
75% of universities have business incubators		(75% x 4.504 x 10)	
	56.700	33.780	22.920
100% of universities have business incubators		(100% x 4.504 x 10)	
	56.700	45.040	11.660

REFERENCES

1. Asosiasi Inkubator Bisnis Indonesia (AIBI)
2. Babbie, E., *The Practice of Social Research*, Tenth Edition, Belmont, USA, Wadsworth/Thomson Learning, 2004
3. Badan Pusat Statistik Indonesia, *Statistik Indonesia 2018*.
4. Bull, I., & Willard, G., E., 1993. *Toward a theory of entrepreneurship*, *Journal of Business Venturing*, Volume 8, New York : Elsevier Science Publishing.

5. Gartner, W. B., 1988. "Who Is an Entrepreneur?" *Is the Wrong Question*, University of Baltimore Educational Foundation.
6. Gina, E., 2018. Analisis Beda Rata-Rata Jumlah Wirausahawan Baru Antara Universitas Yang Mewajibkan Mahasiswa Menjalankan Usaha Dengan Universitas Yang Tidak Mewajibkan Mahasiswa Menjalankan Usaha., Skripsi Tidak Dipublikasikan.
7. Klein, P.G., & Foss, N., J., 2009. Entrepreneurial Alertness and Opportunity Discovery : Origins, Attributes, Critique. In Hans Landstrom and Franz Lohrke, eds. *The Historical Foundation of Entrepreneurship Research*, Aldershot, United Kingdom.
8. Danaraj, J., Ayyappan, S., Kumar, S., Begum, S., Thirunavukkarasu, T. GC-MS based metabolomics analysis and characterization of rosmarinic acid from tropical seagrass *Halodule pinifolia* (2018) *International Journal of Pharmaceutical Research*, 10 (4), pp. 277-285. <https://www.scopus.com/inward/record.uri?eid=2-s2.0-85057184139&doi=10.31838%2fijpr%2f2018.10.04.023&partnerID=40&md5=03c4dd921bb75763baec465407c4e641>
9. Vani mamillapalli, beulah jujavarapu, padmalatha kantamneni (2016) zoo pharmacognosy: animal self-medication. *Journal of Critical Reviews*, 3 (3), 13-17.
10. Angham G. Hadi , Khudheir Jawad , Dina S. Ahmed , Emad Yousif. "Synthesis and Biological Activities of Organotin (IV) Carboxylates: A Review." *Systematic Reviews in Pharmacy* 10.1 (2019), 26-31. Print. doi:10.5530/srp.2019.1.5