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Business Incubator Supporting Diffusion of Innovation, Entrepreneurship Development And Job Creation

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ABSTRACT

The purpose of this research is to describe the role and strength of Business Incubator as a system in which the systematic process of communication of entrepreneurship education for start-up business (Small and Medium Enterprises) is taking place. This research is based on the phenomenon of the existence of the technological knowhow gap between the Innovation Centre as the source of innovation and the Small and Medium Enterprises (SMEs) societies as the should be user of innovation in Indonesia. The Indonesian government, since 1990s than has been developing Business Incubator program as an effort to have a bridge between those two poles. The research is taken as a case at Pusat Inkubator Bisnis dan Kewirausahaan, Institut Manajemen Koperasi Indonesia (The Center for Business Incubator and Entrepreneurship, Indonesia Institute of Co-operative Management), one of Indonesian Business Incubators, established in 1995. The Business Incubator program could be seen as an effort to develop SMEs by diffusing innovation resulted from research and development activities at universities and reseach institutions, and by enhancing entrepreneurship among the SMEs at the same time. This research used descriptive method. This research resulted in some findings: (1) business incubator is the effective method for diffusion of innovation process to SMEs, so that it could overcome the gap between the source and the user of innovation, (2) business incubator is the effective method to develop entrepreneurship of the SMEs, (3) business incubator could contribute to job creation. This research has implications for policies of developing the business incubator program in Indonesia as a method for diffusion of innovation, to develop entrepreneurship of the SMEs, as well as job creation.

Keywords: communication, SMEs, Business-incubator, entrepreneurship, job-creation

1. INTRODUCTION

In 2017, Indonesia was included in the middle-income country category with an average gross national income (GNP) per capita of 3,604 US dollars. But so far, Indonesia is still facing several main problems in economic development. These problems are unemployment, poverty and economic inequality. This is indicated by the data that the number of poor people in Indonesia reached 26.58 million people (10.12% of the total population) based on the BPS poverty line (2017) of Rp 370,910 / person / month¹. The number of open unemployment and underemployment is still very high, around 40 million people or 31.25% of the total workforce of 128 million². Economic inequality between the poor and the rich is also very high, which is reflected in the Gini coefficient of 0.391.

If the three main problems in the form of unemployment, poverty and socioeconomic inequality are not resolved, it is feared that Indonesia will fail to take advantage of the

demographic bonus in 2020 - 2040 and be trapped as a middle-income country, and cannot be a developed country.

One effort that can be done to break the chain of the three main problems is to grow young entrepreneurs. These young entrepreneurs are believed in the future to be strong economic actors who are able to create new business opportunities that can absorb a large number of workers, utilize Indonesia's natural resources optimally and productively, and strengthen Indonesia's economic position in the international market.

The number of Indonesian entrepreneurs has only reached 3.1 percent of the population³. Indonesia is still lagging behind other countries such as Malaysia (5%), China (10%), Singapore 7%), Japan 11%) and the United States (12%)⁴. Therefore, efforts are needed to grow these new entrepreneurs.

Many programs have been carried out by the Government of Indonesia to foster entrepreneurship. But entrepreneurship development is not easy, because new entrepreneurs are faced with the problem of limited access to information sources, technology sources, markets, sources of capital, and others. So there is a gap situation between the conditions of sources of

¹ Badan Pusat Statistik. Berita Resmi Statistik Profil Kemiskinan di Indonesia, September 2017 No 05/01/Th.XX1.2 Januari 2018. Jakarta

² Badan Pusat Statistik. Statistik Tenaga Kerja. 2018. <https://www.bps.go.id/subject/6/tenaga-kerja-html>

³ Badan Pusat Statistik. Berita Resmi Statistik Profil Kemiskinan di Indonesia September 2017 No 05/01/Th.XX1.2 Januari 2018. Jakarta

⁴ Indonesian Minister of Cooperative and SMEs. <https://kumparan.com/kumparanbisnis/jumlah-wirausaha-indonesia-baru-3-1-persen-dari-populasi>

innovation / technology, sources of capital, and markets that have resources with the conditions of start-up entrepreneurs (SMEs) who need resources.

In response to this problem, Indonesia has developed a Business Incubation program. This program was pioneered in Indonesia since at least the 90s. Currently in Indonesia there are 150 Business Incubators⁵. Thus the Business Incubator program is an attempt to bridge the gap between information sources, technology, innovation, capital and markets with the SMEs.

Pusat Inkubator Bisnis dan Kewirausahaan Ikopin (The Center for Business Incubator and Entrepreneurship of Ikopin/ abbreviated as PIBI IKOPIN) is one of the Business Incubators in Indonesia, which was established in 1995 in the campus of Indonesia Institute of Co-operative management (IKOPIN) Bandung.

Based on those description we carried out a research with the title Business Incubator Supporting Diffusion of Innovation, Entrepreneurship Development and Job Creation . The research is carried out to answer the research questions: (1) could Business Incubator be the agent of diffusion of Innovation to the start-up business (SMEs), (2) could business incubator be the agent of entrepreneurship development and job creation. (3) what is the follow-up activities which is necessary to develop the program and what is the implication on the policy to enhance business incubator in Indonesia. .

State Of The Art

Conceptual Framework

Business Incubator: Reference [1] explains that in simple terms the business incubator is a small facility with a group of well-trained management staff, providing shared place/space for business, business facilities, and access to technical services and business in one affordable package. This support is needed for business start-ups because it can reduce the burden of the initial costs with the use of cost-sharing system among the tenants. Further, if the Business Incubator is seen as a system- process, then in a business incubator will be found a variety of indicators as follows: (1) The prospective entrepreneurs, as a result of selection, then called tenants. (2) The facilities required for the operation of the incubator and for tenant; (3) Management staffs that acts as a facilitator or trainer /consultant for tenants; (4) Managerial, technical or entrepreneurship curriculum in accordance with the needs of tenants; (5) Methods of training or mentoring (6) The local environment in which the business incubator is implementing activities, such as the environment of farming communities, communities of craftsmen, traders and so on; (7) Output i.e. tenants who have graduated from a business incubator program and have been ready to become independent entrepreneurs. This description could be presented as in Fig. 1.

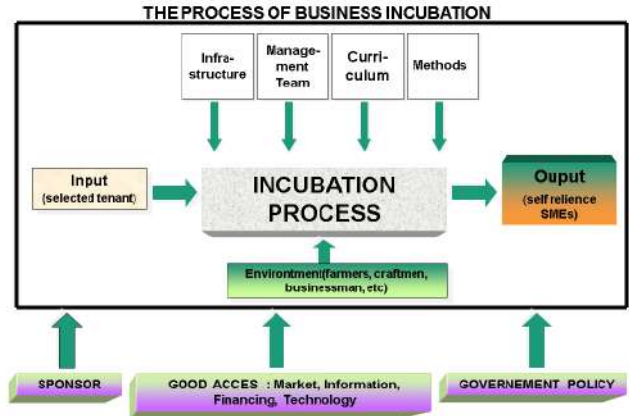


Fig 1. The Process of Business Incubation

Entrepreneurship : The main task of the Business Incubator is to prepare new entrepreneurs (start-up business), with adequate competence both from the spirit aspect as well as from the technical and management aspects related to the business field that he will develop. In general, their conditions still have limitations in these aspects, especially in the spirit of entrepreneurship. Entrepreneurship is the main driver for a start-up business to start and develop their business.

Entrepreneurship is the willingness and capacity to organize, develop and manage a business entity along with any of its risks to get a profit⁶. Entrepreneurship is the act of creating a business or businesses while building and scaling it to generate a profit⁷. Meanwhile an entrepreneur is a person who sets up a business with the aim to make a profit⁸. Entrepreneurship is also defined as an activity that involves the discovery, evaluation and exploitation of opportunities to introduce new goods and services, ways of organising, markets, processes and raw materials through organising efforts that previously had not existed [2].

Communication in Diffusion of Innovation Process: Communication is defined as a process in which the participants create and share information with one another in order to reach a mutual understanding [3]. Various types of communication research can generally be answered by Laswell's model [4]. The process of communication with the paradigm of Laswell's model will create structure and effects. The model he put forward is: "who says what in which channel to whom with what effect".

The communication process is omnipresent, meaning that the process of communication occurs in every activity of life. It also means that communication also occurs in the process of education. Communication is the key of education, teaching and learning and it affects the life of an individual throughout his/her whole [5].

Diffusion of innovation is a kind of communication. Diffusion denotes the process in which, an innovation is communicated over time through certain channels among the people in a social

⁶<http://www.businessdictionary.com/definition/entrepreneurship.html>

⁷ <https://www.oberlo.com/blog/what-is-entrepreneurship>

⁸ <https://www.oberlo.com/blog/what-is-entrepreneurship>

⁵<https://kelembagaan.ristekdikti.go.id/index.php/2019/04/12/dalam-lima-tahun-lembaga-inkubasi-bisnis-tumbuh-pesat/>

system [3]. Reference [3] also described an innovation as an idea, object or practices which is perceived as new by an individual or group of adoption.

The role of Business Incubator in Diffusion of Innovation Process : It has been explained above that the main task of the Business Incubator is to prepare new entrepreneurs (start-up business), with sufficient competence both from the spirit aspect as well as from the technical and management aspects related to the business field that he will develop. In general, their conditions still have limitations on these aspects. In addition, start-up entrepreneurs also have limited access to sources of innovation, sources of technology, sources of information, sources of capital, markets, etc. In fact, on the other hand, there are enough resources for innovation, information, capital, and market opportunities in innovation centers, financial institutions / capital, markets, etc. Thus it can be concluded that there is an atmosphere of gap between the two poles, namely the first pole as a source of innovation, a source of information, a source of capital, and the market, and the second pole is as a user that is start-up entrepreneurs.

In such a situation Business Incubators may operate as an intermediary between the two poles, so as to reduce the gap between the two poles. Intermediation can be carried out starting with the information, innovation, and capital need analysis phase of start-up entrepreneurs as users and then conveying them to relevant institutions as sources. Information about the need analysis of start-up entrepreneurs become material for source institutions to process, create, and package innovation, information and capital programs that are appropriate to the needs of start-up entrepreneurs. Furthermore, Business Incubator plays the role of intermediaation in delivering information from various sources to the start-up entrepreneurs by using the appropriate educational communication methods in the business incubator program. The description of these conditions can be illustrated in the Fig. 2 as follows :

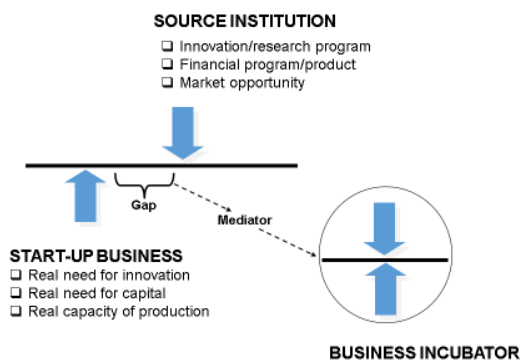


Fig 2. Gap Condition of Innovation

2. METHODS

The research is carried out by using the descriptive method as one of the quantitative approaches. Descriptive research intend to describe a population, situation or phenomenon

accurately and systematically⁹. This research aims at describing the phenomenon of the role of Buisness incubator in supporting entrepreneurship development, diffusion of innovation and job creataion.

As there are three main types of descriptive methods: observational methods, case-study methods and survey methods¹⁰, case study is used in this reserach to describe the characteristics of business incubator by gathering detailed data to identify the characteristics business inicubator. In this case the center for Business Incubator and Entrepreneurship of IKOPIN become focus of the research because of its experience and reputation scince 1995. Focus on¹¹ and indept study of¹² a certain case is a main characteristicsa of case study.

Expected Output

The research is carried out to answer the research questions: (1) could business incubator be the agent of entrepreneurship development and job creation, (2) could Business Incubator be the agent of diffusion of Innovation to the start-up business (SMEs), (3) what is the follow-up activies which is necessaary to developpe the program and what is the implication on policy to enhance business incubators in Indonesia.

3. FINDINGS AND RESULTS

The Process of Business Incubation for entrepreneurship development and job creation

The business incubation process at PIBI IKOPIN is carried out systematically through several stages. The stages are carried out broadly through three main stages, namely: (1) the recruitment and selection process of tenants (participants of the business incubation program) conducted selectively to obtain tenants who have good entrepreneurship potential, (2) the incubation process stage, which is carried out with some integrated and systematic education approaches / methods including training, mentoring, tutorials, proposal exchanges, advocacy, and (3) graduation. The process of business incubation is running as in[1].

The three main stages are described schematically as follows in the Fig. 3 as follows:

⁹<https://www.scribbr.com/methodology/descriptive-research/>

¹⁰ <https://psychcentral.com/blog/the-3-basic-types-of-descriptive-research-methods/>

¹¹ <https://www.scribbr.com/methodology/descriptive-research/>

¹² <https://psychcentral.com/blog/the-3-basic-types-of-descriptive-research-methods/>

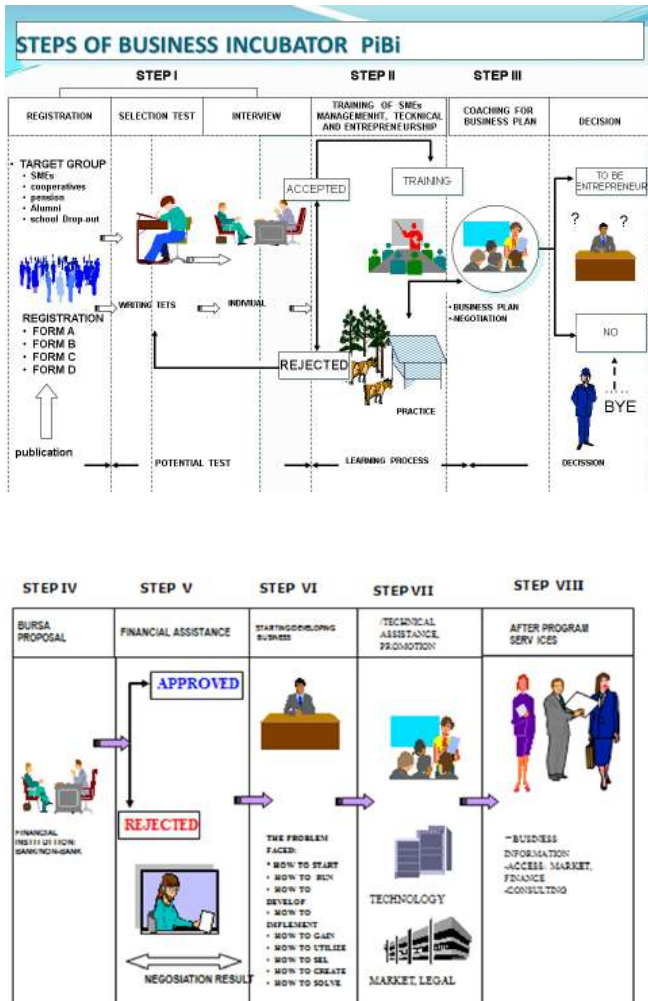


Fig 3.. The Steps of Business Incubation

Source: PIBI IKOPIN

With the process as described above, up to now PIBI IKOPIN has incubated and graduated more than 700 tenants with various business fields. Each graduate has been able to develop their respective businesses in their respective locations, not just his own business, even the efforts of his friends with a group approach. They did this approach to create synergy so as to capture market opportunities and strengthen bargaining positions in the market. Thus it can be concluded that the business incubation process carried out in PIBI IKOPIN has been able to create a multiplier effects on the development of entrepreneurship and job creation.

An overview of the conditions of developing entrepreneurship and job creation that has been carried out by PIBI IKOPIN is presented in Table Annexes 1. The Table explains the success of PIBI IKOPIN in creating new entrepreneurs (start-up business), then they could improve /develop their business so that they could employ more labors and in the same time they could also arrange partnership with the others by creating new groups of start-up business that

could support their business, and creating new networking with other companies.

Difussion of Innovation Process

Through the business incubation process, so far many innovations have been diffused to the tenants, and can be applied to their respective businesses. The communication process in the diffusion of innovation so far is going on well as in [3]. In this case PIBI IKOPIN play role as the intermediation agent between the source of innovation and the tenants. Table 1 presents the examples of innovations and sources of innovation that have been mediated by PIBI IKOPIN, which represents of agriculture and industrial sectors.

Table 1. Examples of Technical Innovations Diffused by PIBI IKOPIN

Kind of Technical Innovation	Source of Innovation	The uniqueness and benefit of innovation
Aluminum waste utilization	The centre of Innovation for SMEs, Agency for the Assesment and Application of Technology (BPPT)	Value added given by transforming aluminum industrial waste into handicraft
Community development based agrotourism	The centre of Innovation for SMEs, Agency for the Assesment and Application of Technology (BPPT)	Tourism development with the integration of local indogenous, biological diversity and tourism. It gives economic benefit, integrated sustainable resource use and education value to the community and to the tourist.
Hanjeli (<i>Coix Lacryma-Jobi L.</i>) as alternatif (substitute) food for rice and wheat flour	Ministry of Research and Higher Education	Food diversification of rice and wheat flour)
Mutli function Portable tractor	Ministry of Research and Higher Education	<ul style="list-style-type: none"> Portable (only 15 kg weight) Multifunction: water pump, electricity generator, pest sprayer.

Source: PIBI IKOPIN

Table 1 indicated the uniqueness of the innovation as one of the reasons why it is adopted by the tenants. This thing could indicate the importance of relative advantage of the innovation as expalined in [3]. This also could prove the effectiveness of business incubator for diffusion of innovation process, and could strengthen the finding of the research of business incubation process on the Tenants of Sragen Techno-park in West Java Indonesia [6].

Policy Implication

The research could prove that the business incubator could effectively diffuse the innovation to the start-up business, to develop entrepreneurship, and to contribute in job creation. Nevertheless, the condition of start-up business in Indonesia are generally ...so that they could not pay the program of business incubation by their selves, so the government support in term of financial aid for the business incubators is necessary.

4. CONCLUSION

The research could give conclusion as follows:

- (1) business incubation is the effective method for diffusion of innovation process to SMEs, so that it could overcome the gap between the source and the user of innovation,
- (2) business incubation is the effective method to develop entrepreneurship of the SMEs,
- (3) business incubator could contribute to job creation.

This research has implications for policies of developing the business incubator program in Indonesia as a method for diffusion of innovation, to develop entrepreneurship of the SMEs, as well as job creation.

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ANNEXES
ANNEXES TABLE 1. EXAMPLES OF TENANTS OF PIBI IKOPIN

Name of Tenants	Year of Program	Kind of business	Sales volume (Rp)	Labors	Number of Business Partners (in production activities)	Total Number of Labors Involved
Sudrajat	1995	handicraft	240 million	16	8 companies	30
Hidayat	1996	Cookies	5 billion	300	-	300
Rachmawati	1997	Handicraft	3,6 billion	20	20 groups	± 100
Pangestu	1997	convection	6 billion	12	3 companies	± 40
Muhendi, SE	1997	Agribusiness	4,2 billion	85	40 companies	250
H. Affandi	1997	Agribusiness	2,1 billion	200	7 groups	3000
Jubaedah	1997	Moslem fashion	180 million	5	5 companies	9
H. Mulyana	1999	Aluminum/ light steel construction	100 billion	300	32 branches	300
Abidin	1999	Decorative flower	300 million	10	10 farmers	10
H. Munir	2000	Tradisional weaving	300 million	15	6 companies	20
Asep Ako	2009	culinary	900 million	30	3 branches	30
The Village of lebak muncang	2010	Agro-tourism	1 billion	150	67 house-holds	150
Kelompok Tani Hanjeli Wado	2019	agriculture	-	80	1 group	80

Source: PIBI IKOPIN