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Designing and Developing Innovators' Skills in Indonesia through Entrepreneurship Education: A Case Study of KejarAURORA

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ABSTRACT

Innovation is one of the generators or activators in a nation to grow and develop. Doers can be called innovators who generate or activate to be the agents of change. To face global competitiveness, Indonesia needs to have education system supporting the coming of new innovators since the early ages. KejarAURORA aims to facilitate students aged from 6-18 to develop their imagination and other soft skills such as leadership, teamwork, communication, problem solving, and creativity to become innovator. The goal of this exploratory study is to obtain primary data of some values that support in designing and developing innovator skills in Indonesia through entrepreneurship education based on the characteristic of Indonesian innovators. The obtained data will then be developed for kejarAURORA curriculum. Primary data were collected through semi-structured interviews with 11 Indonesian experts from various field. There are CEOs, HR director, investor, entrepreneurs, a social entrepreneur, young entrepreneurs, an artist, a musician, and an art director. The study resulted key success factors, the importance of imagination, curiosity, and various suggestions for children education in Indonesia. The implications of this study are as a guideline for kejarAURORA curriculum, knowledge about innovators that can be used by Indonesian people to have and develop innovator skills, and for the future research.

JEL Classifications: O35, M14

Keywords: innovator's skill, entrepreneurship education, disadvantageous children, Indonesia, kejarAURORA

I. INTRODUCTION

Since 2012, kejarAURORA has been initiating an educational program for disadvantageous children in Cimahi, Indonesia. KejarAURORA aims to facilitate students aged from 6-18 to develop their imagination and other soft skills (leadership, teamwork, communication, problem solving, and creativity) to become an innovator in the future. kejarAURORA attempts to improve education quality by designing and developing innovator skill in Indonesia through entrepreneurship education.

A. Background

A number of researchers have reported entrepreneurship education focused on the implementation of school curriculum, university curriculum, business school, and training programs with the targets of participants are students, students of university, employees, micro-entrepreneurs, and new entrepreneurs. The implementation of entrepreneurial/innovative skill education needs to be relevant toward the situation of targeted participants. By this reason, it is better to look for the entrepreneurial characteristics and condition of local innovators to investigate the influencing factors.

In order to create an effective impact for society, entrepreneurial characteristics need to be taught since early ages (Dana, 2000). In early ages, there are factors that can influence the process of creating innovators (Wagner, 2012). Innovator that came from their origin will understand about the problem to be solved, so they may pose a better solution (Das, 2012). In Indonesia, entrepreneurial/innovative skill education has not been a focus to prepare disadvantageous children for the future. The imbalance of educational quality between rural and urban area also be a concern in taking a decision to develop the entrepreneurial education. The thing is, socio-economic status, which is one of social group in social inclusions, can be increased through education and empowerment by facilitating human's potential (Gidley, et.al, 2010).

Indonesia has a high level of diversity, in terms of area, social, culture, or religion. Indonesia has 34 provinces with 13,667 islands with 31 different groups of tribes, and 6 official religions (Badan Pusat Statistik, 2010). Based on this condition, different approach is needed to understand the characteristics of innovator as the way to create an educational system that is able to spread the positive impacts.

Based on the *Instruksi Presiden No. 6 Tahun 2014* about the increasing of competitiveness in facing the ASEAN community, President of Indonesia asked the government to run a preparation in developing entrepreneurship; development of new entrepreneurs, expansion the role of young entrepreneurs, and development of entrepreneurship based on innovation. ASEAN Free Trade Area (AFTA) is asking the readiness of human resources in each country to compete in the community. ASEAN community not only supports trades, investments, and job creations, but also encourages movement of businessperson, investments, skilled labors, and capitals (ASEAN, 2015). It is very important for Indonesia to build a good capacity of human resources, especially in giving preparation since in the early time so they will be able to compete globally in the future.

Data of population in Indonesia from *Badan Pusat Statistik* (2010) shows that Indonesia currently has demography of good candidates in productive ages. Currently, there are more than 70% of Indonesians under 50 years old. On the other hand, the data

show that the quality of human resources in rural areas is still being left by urban area. The percentage of graduated junior high school students in rural is 28.15%, while urban area is showing the percentage of 53.76%. Global Innovation Index in 2015 stated that education in Indonesia is number 97 out of 141. The development and implementation of entrepreneurship or innovator skill education will help Indonesia improve the quality of human resources by creating innovators and leaders when the demography of population is coming to its productive ages.

B. Research Objectives

KejarAURORA, which has an aim to develop underprivileged students' imagination and soft skill, has been running for 4 years. The research on development of entrepreneurship or innovator's skill education model will support KejarAURORA in giving bigger contribution for society, as well as reaching further targets in rural areas by cooperating with CSR, NGO, companies, and government.

Some of the researchers have been done in implementing the entrepreneurial or innovative skill in their curriculum or formal institution. This research is proposed under a new approach by implementing it as a part of kejarAURORA curriculum in informal education through playing and doing explorative activities.

This research focus on characteristics of local innovators as preliminary study and a guideline to the next step of research on designing and developing innovator skills in Indonesia through entrepreneurship education that can be implemented in kejarAURORA curriculum.

C. Research Questions

In terms of designing and developing innovator skill in Indonesia through entrepreneurship education, early step is to find characteristics of Indonesian innovators. This research seeks to find answers from these questions:

- What are Indonesia innovators' key success factors (values) that are important for innovators from early age until now?
- What is imagination at work? Is it important?
- What is curiosity? How to implement and develop it?
- What are suggestions to children education to prepare innovators for the future in Indonesia?

II. LITERATURE REVIEW

Every nation has its own problems. There are some economic and social challenges. Innovations can be solution to those challenges (Wagner, 2012, p. 2). Innovation is driven and managed by entrepreneurship. Entrepreneurship characteristics can be seen from people who have passion to plan ideas, have energy and strategy to execute and have courage to take risks (Bessant and Tidd, 2007, Drucker, 1985). Entrepreneurship is one of the major generators of growth, wealth and well-being (Coric, Katavic, and Kopecki, 2011).

Entrepreneurial process is a process of building organization and creating valuable products to existing market (Lumpkin and Dess, 1996). Entrepreneurial skill

that is implemented on daily business can influence sustainable growth and nation's prosperity. In addition, entrepreneurial skill can create new jobs, add values to all stakeholders, increase GDP, develop new SMEs, and fasten economic development (Coric, Katavic, and Kopecki, 2011).

Tony Wagner (2012) has studied many young innovators to be creative and entrepreneurial. Innovators have most essential qualities such as curiosity, collaboration, associative thinking, and experimentation. These skills can be nurtured, taught, and mentored. Dyer, Gregersen, and Christensen (2011) concluded that there are five differences of skill from innovative and non-innovative individuals; associating, questioning, observing, experimenting, and networking. An entrepreneur is an innovator who is always immersed in the art of creating new ideas/products/businesses and a risk taker/bearer (Eze and Nwali, 2012). Lessem (1986) assumed that innovator is one of entrepreneurship types. Regarding to previous statements, there are relationship that can be seen between entrepreneurial and innovative skills. Both of them show process in the development and creating things with values and impacts.

Building entrepreneurial mindset is very important. Implementing this approach will give positive effects towards work culture and economy. Practices of entrepreneurs have to involve in designing entrepreneurial education model (Eze and Nwali, 2012). Entrepreneurship education is important in early stage of children development. This education aims to create innovators in the future by developing entrepreneurial skill (Chou, 2005).

Education plays an important role in developing entrepreneurs by focusing on knowledge, skills, and attitude (Dutta *et al*., 2011). "Education needs to integrate all the relevant elements to cultivate an entrepreneurial motivation among students and enable them to compete in the international arena" (Othman, Hashim, and Wahid, 2012). In business schools, many courses are teaching about entrepreneurship, rather than teaching entrepreneurship (Hunter, 2012). David Kirby (2004) concerned that content and process learning is required to develop entrepreneurs. He also suggested that entrepreneur education needs to be shift from educating 'about' entrepreneurship to educating 'for' it. The educational system depends on the availability, capacity, personnel, and facilities to support on transferring knowledge, skills, and building mindset (Eze and Nwali, 2012).

It is important to examine the characteristics and role of the entrepreneur (Kirby, 2004). The study explores the behavior and activities of a few successful entrepreneurs conclude that entrepreneurship can be taught and can be a proven trail for the would-be entrepreneurs (Azim, 2013). Wagner (2012) stated that when most people given the right environment and opportunities, they could become more creative and innovative.

Entrepreneurship education curriculum needs to focus on creating values rather than only providing traditional business tools. There are misconceptions in entrepreneurship that entrepreneur has to be famous and entrepreneurship becomes lifestyle (Hunter, 2012). Entrepreneur education's curriculum design must be obtainable and offered in a variety of ways (Jones and Packham, 2011). Young people can learn entrepreneurial/innovative capabilities through education and upgrade their skills through training and experience. What to focus is what entrepreneurial behaviors and skills are needed in the entrepreneurship education curriculum (Chell, 2013).

In the implementation of entrepreneurship education, there are some of the factors that may affect its process. There are several examples from other researches

about implementation of entrepreneurship education: In India; caste system, British occupation, cultural values, and government regulations affect entrepreneurship development (Dana, 2000). In the case of immigrants, entrepreneurship work as a facilitator as they help the immigrants to develop in the new living area, but they may also work as an obstacle by serving problem through different culture (Haghighi and Lynch, 2012). Entrepreneurship education in postgraduate international students makes a valuable contribution towards their experiences. They gained significant learning, personal development, and confidence in career as well as educational goals (Rae and Harris, 2012). Entrepreneur education is one of the factors that influence the entrepreneurial intentions (Paco *et.al*, 2015). In Bogota, Colombia, there is an experiential part of a school curriculum that focus on giving entrepreneurial mindset, knowledge, and skills in traditional high school subject. The result shown that students in entrepreneurial program was satisfied and recognized its value (Budden, Baraya, and Valero 2013). Parents, teachers, and mentors influence children who become innovators in the future (Wagner, 2012)

Based on the analysis above, it can be stated that innovator and entrepreneurial skills are the main factor in the development of innovation. They affect the development of a country through human resources by providing an innovator's mindset. It is important to implement an education that is able to develop children to become an innovator. Many factors may affect the innovators on their process, such as social, culture, habits, interest, and others. Theoretical study will support their development, as well as the presence of innovator will be helpful to create a supportive environment. Therefore, real experiences of local innovators play an important role to design and develop innovator skill through entrepreneurship education.

III. METHODOLOGY

Exploratory study used in this research is to explore the characteristics of Indonesia innovators. Exploratory study is suitable for research that needs to know about phenomena of interest. This study offers the preliminary information for the next research (Sekaran and Bougie, 2010). This research approach uses Tony Wagner's (2012) technique that interviewed American innovators in U.S. However, in this research focuses on Indonesian innovators' characteristic with some modifications.

Dyer, Gregersen, and Christensen (2011) said that there are four types of innovators; start-up entrepreneurs, corporate entrepreneurs, product innovators, and process innovators. Primary data were collected through semi-structured interviews with 11 Indonesian experts from various fields based on types of innovators. There are CEOs, a HR director, investors, entrepreneurs, a social entrepreneur, young entrepreneurs, an artist, a musician, and an art director. They are selected because of these innovator skills relating to kejarAURORA vision and plan. The profile of respondents is presented in Table 1.

Table 1
Profile of respondents

No	Experts	Profile				
		Age	**Gender**	**Expertise**	**Profession**	**Type of Innovator**
1.	JB	63	Male	Business, Human Resources, Leadership	HR Director of FMCG Company in Indonesia	Corporate entrepreneur and Process innovator
2.	SU	47	Male	Entrepreneurship, Finance, Leadership	Entrepreneur, Investor	Start-up entrepreneur, Corporate entrepreneur, and Process innovator
3.	IH	53	Male	Entrepreneurship, Technology	Tech Entrepreneur	Start-up entrepreneur and Product innovators
4.	BS	60	Male	Social entrepreneurship, Empowerments	Social Entrepreneur, Pilot	Product and Process innovator
5.	YS	43	Male	Creative Thinking, Innovation	Creative Consultant	Start-up entrepreneur, Product and Process innovator
6.	JS	56	Male	Art, Design, Architecture	Art Director, Artist	Product innovator
7.	ST	37	Female	International Art, Design	International Artist	Product innovator
8.	FPW	26	Female	Technology, IT, Startup	CEO of Tech Startup / Young Entrepreneur	Start-up entrepreneur and Product innovator
9.	RA	30	Male	Creativity, Music Innovation	Musician, Band	Product innovator
10.	HS	47	Male	Leadership, Technology, Business, Innovation	CEO of multinational company in Indonesia	Corporate entrepreneur
11.	MW	47	Male	Leadership, Business	CEO of FMCG company in Indonesia	Corporate entrepreneur

IV. RESULTS AND DISCUSSION

The following are results from interview with experts that contain; key success factors (values) that matter most to the experts in their life and become trigger to create something meaningful, the importance of imagination, curiosity, and suggestions for children education in Indonesia. The reason is kejarAURORA needs to focus on developing imagination and soft skills, consequently the main points are about imagination with curiosity support, soft skills which can be learned from key success factors, and preparing the atmosphere of children education in the future.

A. Key Success Factor

All the experts have values or key success factor that influence in their successful life.

They believe that there are some values from early ages that are still kept and other values that experts get from experiences. Basically, key success factors come from their parents and childhood circumstances. The experts stick on values that give them self-development. In the journey, new values can replace the old, but most of experts still hold basic values that they believe in. Key success factors shape them to be innovators who have strong character. The most important thing that these key success factors are from local people who become Indonesian innovators from early ages until now. In addition, entrepreneurial journey as a matter of a fact also gives influence to innovators.

Table 2
Key success factors

o Work hard, work smart, work totally, work heartfelty
o Read a lot of books
o Trustworthiness
o Discipline
o Never give up
o Integrity
o Develop curiosity
o Self-confident
o Be brave to build dreams
o The importance to develop imagination
o Make impacts
o Compassionate and gratitude
o Passion
o Learn to play, and play to learn for creativity and unleash self-potential
o Parents, teachers, mentors, and circumstances roles

B. Imagination

All the experts believe that imagination is important. Imagination can lead us to shape the future and make better conditions and many ideas. It can be a different factor of every person to others. Innovation led by imagination of some people who believe can solve problems and give benefit to the world. Solutions of problem need to have imagination, creative thinking and courage. Imagination can give power to innovators to change the world.

C. Curiosity

Innovators have to have curiosity and develop it in every step of journey that they have. Curiosity is an action to not ever stop learning and to find new knowledge. Experts believe that they have to fulfill their curiosity. Which makes them to search all knowledge. Curiosity brings people to place something as at new and insightful thing. There are many ways to practice and develop curiosity:

Table 3
Developing curiosity

- Keep asking with three questions; Why? Why not? And What if?
- Read more books and watch movies that relate to topics
- Collaborate with other people with different backgrounds (networking)
- Try to solve problems
- Love learning and sharing
- Empathize and always have willing to help
- Live in diversity
- Get feedback

D. Education

Experts gave suggestions to children education to prepare to be innovators for the future in Indonesia. They believe children should have good circumstances that support their learning process. There are suggestions for education in Indonesia, which children should have skills or supports as follows:

Table 4
Suggestions

Important Skills	Important Supports
o Brave to try and fail o Know self potential o Know passion and strength o Think critically o Never stop learning o Open minded o Curiosity o Optimistic o Create opportunities o Self confidence o Run imagination as well as possible o Easy to explore curiosity o How to learn o Love to learn o Nationalism o Knowledge sharing o Reading time or task o Refresh activities	o International education system but still strong on local culture o Balance in knowledge and character development o Support children with various backgrounds o Support children to give opinion

V. CONCLUSION

Indonesian innovators have unique characteristics because of local cultures. In Indonesia, culture can influence how people can succeed in their life. There are many approaches to become innovators, however, key success factors are the same among innovators. Developing imagination and curiosity is important for innovators to have more steps in their journey. Children education in Indonesia needs to support children

to explore themselves more than before. Education system should support children to unleash their imagination and curiosity.

Entrepreneurship education needs foundation to develop innovator skills. These results of the study can be a preliminary study and a guideline for kejarAURORA curriculum, knowledge about innovators that can be used by Indonesian people to design and develop innovator skills, and for the future research.

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