

# INFORMATION TECHNOLOGY-BASED EDUCATION MANAGEMENT LEADING TO ENTREPRENEURSHIP

Kamaluddin, FKIP MH.Thamrin University Jakarta

## ABSTRACT

*This research was aimed to examine and illustrating the information technology-based education management to create qualitatively the world class entrepreneurship. This research used qualitative descriptive to examine entrepreneurship promoted by Jokowi-Jusuf Kalla governmental. The Information Technology-Based Education Management is a discourse that always actual to be discussed. This issue is put forward for the progress this era and connected to the information technology element. Qualitatively, the results of the research indicate that the process of information technology-based education management will support the entrepreneurship sector and will prioritize economic factors with some particular, helpful elements, such as the use of information technology in education management in the entrepreneurial world, in accordance with the development of information technology in education management sector for business sector.*

**Keywords:** Education Management, Information Technology, Entrepreneurship.

## INTRODUCTION

Education sector is getting more complex and there are many problems arising over time. These problems, especially the education sector in Indonesia, improve the comprehension the physical and non-physical elements relevant to education. Referring to the Law of the Republic of Indonesia in 2003 on the national education system containing the functions and objectives of national education, there are a lot of efforts by the government and the Indonesian people to make sacrifices for the advancement of Indonesian national education.

Every individual of Indonesia's society is obligated to participate in advancing the educational sector of Indonesia, especially in the schools or educational institutions. The existence and role of information technology in the education system has brought a new era in the development of our education world. However, the development has not been accompanied by the improvement of human resources determining the success of the Indonesian education in general. This is mostly due to our lack of human resources to utilize information technology for the educational processes (Rochaety, 2011).

Isyabhana (1980) stated that technology was a way to do something to meet humans "needs with the help of tools and the reason to strengthen, or make the organs of the body, senses and humans" brain more effective. Alter (1991) defined information system as a combination of working procedures, information, people and information technology organized to achieve goals in an organization. The information system components interacts each other.

The system is interconnected a set of elements and influencing each other in a particular environment (Ludwig, 1997). Other definition of system is a set of interconnected elements to achieve a goal (Haag & Keen, 1996). Information is a statement to describe an event (an object or concept) so that humans can distinguish something from others (Eilon, 1969). Management is

the process of planning, organizing, leadership, and supervision among members of the organization by using all organizational resources to achieve the goals determined (Stoner, 1998).

Education as the process to change the attitudes and behaviors of a person or a group of people in the effort to mature people through teaching and training efforts (processes, actions and education method). The information system of education management is a combination of human resources and information technology applications to select, store, process, and retrieve data in the course of supporting the decision-making process in education.

Information system is a conceptual system that uses the conceptual resources, data and information, to represent a physical system, which in this case, the form of a company or organization. Information systems help managers and leaders of certain companies or organizations to get a description about the company. Information contains an important input for managers in decisions making with respect to Entrepreneurship. It is the ability to organize and run and manage businesses with great creativity.

The entrepreneurship was the ability to create, seek, and take advantage of opportunities to achieve the idealized goal (Baharuddin, 2012). Alma (2011) also suggested that entrepreneurs are people who see opportunities and then create an organization to use the opportunities efficiently.

An entrepreneur is not always a trader or a manager, but rather a unique person who influenced by courage, while entrepreneurship is a dynamic process to create additional prosperity. This additional prosperity is created by entrepreneurial individuals who bear the risks, spend time, and provide various goods and services. The goods and services produced may not be new items but should have able and useful values by utilizing existing skills and resources.

## LITERATURE REVIEW

Pidaria (2011) stated that management is the process to integrate unrelated sources into a total system to accomplish a goal. The sources include people, tools, media materials, money and facilities and everything directed and coordinated centrally to complete the goal. Haag & Keen (1996) stated that *“information technology is a set of tools that help you to work with information and do the tasks relevant to information processing”*.

Etymologically, entrepreneurship is a term derives from the word *“wira”* which means brave, mighty, and primary. Business is the activity that exerts energy, mind or body to achieve a goal (Nasution, 2007). Baharuddin (2012) defined entrepreneurship as the ability to create advantage of opportunities and achieving the ideal goal. Alma (2012) said that entrepreneurs see opportunities and create an organization to it efficiently.

Entrepreneurship is a way of thinking and acting based on opportunity, a holistic approach and balanced leadership to achieve the desired goals. Innovation is a special tool for entrepreneurs, a tool to exploits change to become an opportunity in different business fields or different services. Entrepreneurship pursues opportunities without regard to resources currently under someone's control. Technopreneurship is a simple entrepreneurship in the context of intensive technology to combine the technology, talent and entrepreneurial skills. Technopreneur is a person who destroys the existing economic order by introducing new products and services, by creating new forms of organization and by utilizing new raw materials. Technopreneurship (technology entrepreneurship) definition should concern to research and commercialization. Research is an invention and addition to science. Commercialization may be defined as the

transfer of research or technology results from laboratories to markets in a profitable way. The ways to commercialize technology are licensing, partnering, or selling it to other parties who will commercialize it. Technology is a way or method to process something to achieve cost and time efficiency. Consequently, it can produce higher quality products. The basis to create technology are market needs, solutions to problems, application of various scientific fields, improvement of effectiveness and efficiency of production, and modernization (McClelland, 2009).

### Related Research

There are parameters from 3 discourses being discussed. First, education management is a thesis prepared by Widaya (2017) examined the role of education management in facing the ASEAN economic community and in strengthening the small and medium-scale micro businesses. The conclusion is education management has a significant role in supporting the ASEAN Economic Community and in Strengthening the Small and Medium-Scale Micro Businesses. Second, information technology refers to Hidayat (2017) examined information technology with the conclusion that information technology greatly influenced the entrepreneurship world in this globalization era. Third, Adam (2013) examined the entrepreneurship with a conclusion that Entrepreneurship can increase the economic potentials everywhere.

## RESULTS AND DISCUSSION

Robert et al. (2008) defined entrepreneurship as the process to create new value by devoting the necessary time and effort accompanying with financial, psychic, and social risk and receiving rewards of monetary and personal satisfaction and independence. Ciputra (2009) defined entrepreneurship education is a weapon of mass destruction for unemployment and poverty as well as a ladder to achieve dream of every citizen of the community to be financially independent and able to build wealth. That consequently, a prosperous nation will be put into reality. Technopreneurship derives from a combination of the words “*technology*” and “*entrepreneurship*” Sudarsih (2013) said that technopreneurship was the process and formation of new businesses involving technology as the basis with to create appropriate strategies and innovations to put technology as a factor for national economic development in the future. Therefore, technopreneurship will combine technology and entrepreneurship.

The concept of technopreneurship explains that the basis to develop entrepreneurship starts from the invention and innovation in technology. Nasution (2007) defined technopreneur as an entrepreneur who builds his business based on his expertise in the field of science and technology, and produces innovative products that are useful not only for him, but also for the welfare of the nation and country. Technopreneur is not just selling commodity goods or industrial goods, which tight market competition but also innovative products the substitutes and complements in the progress of human civilization.

### Figures of Technopreneurship

There are world figures who are engaged in the technology business. They Mark Zuckerberg as the founder of the social networking website, Facebook, Steve Jobs as the founder of Apple, Bill Gates as the inventor of Microsoft, Sergey Brin and Larry Page as the

businessmen to discover giant Google, Jack Dorsey as the inventor of Twitter, Kevin Systrom as the founder of Instagram, and others. They are a few of world leaders who managed to become millionaires from the use of technopreneurship idea.

### **Characteristics and Fundamentals of Technopreneurship**

The nature and basic character of a person will influence his attitudes and behavior. Behaviors will create a character. Good character of entrepreneur will bring his efforts towards development, improvement, and progress. McClelland (2009) explained the details characteristics of high entrepreneurial spirit as follows:

- 1) Preferring jobs with realistic risks,
- 2) Working harder on tasks that require mental abilities,
- 3) Not working harder only for money,
- 4) Desiring to work in situations where personal achievements can be obtained,
- 5) Performance quality increase with clear and positive feedbacks, and
- 6) Tendency to consider the future and have long-term thinking.

The characters and nature of an entrepreneur below.

#### **Adaptability**

These extraordinary characteristics should be owned to become a successful and passionate entrepreneur. The stubbornly work hard to achieve something without flexibility hinder the success in the long term. Successful entrepreneurs need to learn how to adapt and be flexible with current market trends.

#### **Competitiveness**

Competitiveness becomes important when business competition is increasingly frivolous. The players in business and commerce have growing significantly.

#### **Confidence**

A self-confident entrepreneur will not feel inferior when dealing with other people, especially people who are more successful. He is confident in his abilities and remains as himself. Even when underestimated, he is still convinced to move forward in accordance with his vision and mission.

#### **Discipline**

A disciplined entrepreneur has strong principles at work. He is obedient to the rules and always strives to run his business according to the target. He always manages time and consistently does his work according to plan. Discipline is a sign of professional work.

#### **Passion**

A diligent entrepreneur always has the enthusiasm to study and work every day. He is always diligent and makes every effort in his work. He is serious and fully committed to running his business, even when he is at the lowest point. He will not give up, even though the results are not yet visible.

#### **Honesty**

An honest entrepreneur makes everyone happy to work together because people can be trusted. He will not intend to harm consumers, employees and business partners. This honesty makes his reputation good and improves his business image. Therefore, honest is often referred to as the main capital in business.

### **Organizing**

An entrepreneur leader has various tasks and lots of work. The should be able to manage time well, starting from doing tasks based on priorities, or discipline with a predetermined schedule for both short and long terms.

### **Perseverance**

Reputation is the biggest capital in marketing. Positive company image will enhance the company's reputation and consumer trust in the products. Therefore, an entrepreneur should have a good reputation and reputation to affect his brand.

### **Persuasiveness**

A communicative or friendly entrepreneur shows an open attitude to dealing with others. He can establish good communication with anyone. This is very important to maintain team unity at work in marketing their products to consumers and establishing business relationships with other parties.

### **Risk-taking**

A courageous entrepreneur is ready to face challenges. He is quick make decisions and is ready to face all risks. The entrepreneurship is an alternative solution to various problems in society such as poverty and social inequality, unemployment in productive age and depletion of energy supply reserves. The entrepreneurial spirit is not only limited to academic intelligence and the skills to produce products but also a dynamic soul to capture challenges and risks and turning to opportunities and growth potential (Soegoto, 2009). Technopreneur is a part of development of entrepreneurship giving a description of entrepreneurship by using a technology-based innovation.

## **The Role of Technopreneurship in the Community**

Technopreneurship may also be directed to provide benefits to people who have weak economic ability and to improve their quality of life. Therefore, technopreneurship should support the sustainable development. Technopreneurship can provide benefits or impacts, economically, socially and environmentally. The economic impact technopreneurship are follows:

- 1) The efficiency and productivity improvement,
- 2) The income increase,
- 3) The creation of new jobs, and
- 4) Stimulating other economic sectors.

The social benefits of technopreneurship are ability to create a new culture that is more productive and to contribute to providing solutions for social problem settlements. The benefits in terms of the environment are:

- 1) To use raw materials from natural resources more productively
- 2) To increase the efficiency of resource use, especially energy resources.

There are several fields of invention and innovation that can be prioritized to provide benefits to weak economic communities consisting of water, energy, health, agriculture, and biodiversity, commonly abbreviated as WEHAB. In the fields above the economically weak community in Indonesia faces many problems. The development of technopreneurship can be directed as an effort to resolve these problems.

### **The Contribution Factors of Entrepreneurship**

The internal and external conditions contribute to the entrepreneurship process. The external factors are growth, previous experience, and development in the entrepreneur. Internal factors include the motivation and talent of each entrepreneur. The factors to lead a person to become a technopreneur are below.

#### **Motivation**

Motivation as a condition in a person to encourage the individual's desire to do certain activities in order to achieve goals. The theory of motivation developed by Abraham H. Maslow basically revolved around the opinion that humans had five levels or hierarchy of needs, namely: (1) physiological needs, such as hunger, thirst, rest and sex; (2) safety needs, not only in the physical sense of meaning, but also mentally, psychologically and intellectually; (3) love needs; (4) esteem needs, which was generally reflected in various status symbols; and (5) self-actualization, in the sense of opportunities to develop potentials into real capabilities.

McClelland in Mahesa (2012) found that those with high achievement motivation were different from others in their strong desire to do things better. Those who had the highest need for getting achievement are successful entrepreneurs.

#### **Family**

Parenting style really determines the formation of the technopreneur spirit of their children (especially at the age of 2 to 16 years old). There are three forms of parenting styles - authoritarian, permissive, and democratic. If someone comes from an entrepreneurial family, since childhood he will gain knowledge about entrepreneurship. So the interest in entrepreneurship can grow from the family.

#### **Education**

Education is done with full awareness, has specific goals and targets and systematically develops the existing potential. The only struggle or way to realize humans who have moral, attitude and entrepreneurial skills is education. Education improve the insights of individuals to become more confident, making the right decisions, to improve creativity and innovation, moral, character, intellectual, and quality of other human resources to become independent. Education will shape one's personality to be stronger and more resistant to problems. A strong personality is one of the principal capitals for an entrepreneur.

#### **Environment and Society**

Business environment has a significant effect on the nature of entrepreneurship. The Convergence Theory of Walgito the surrounding environment has an important role in individual development. The many facts justify this theory. Someone who grows up in a merchant environment will have a greater chance to become a trader. Environments consist of physical and social. The natural environment, for example the land condition, changes in seasons and natural

wealth is physical environments affect the soul development. Different natural environments will create different individuals. Entrepreneurship is determined by achievement motives, optimism, attitude values, and entrepreneurial status or success.

Affective ability includes the attitudes, values, feeling aspirations, and emotions that very dependent on the existing environmental conditions. The affective ability dimension and cognitive ability dimension are part of the entrepreneurial ability approaches. Therefore, the entrepreneurship ability is a function of entrepreneurial behavior in combining creativity, innovation, hard work, and courage in facing risks to get opportunities.

Technopreneurship has the enthusiasm to build a business that characterizes the integration of technological application competencies. The cutting-edge utilization of technology in business development based on the spirit will be able to optimize the process and results of the business units. Technopreneurship should be successful in two things, namely to assure that the technology as the business object can function in accordance with the needs, customer target and can be sold for profit and giving economic, social and environmental benefits. Technopreneurs are interested in technology, creativity, innovativeness, dynamics and bravery to be different and take an unexplored path and very passionate about their works. Technopreneurship is a technology-based entrepreneurship that has not been developed yet and in fact, Gorontalo community is still not familiar with this term. By utilizing the processing (production) and marketing technology, the agricultural plantation resources and marine fisheries can actually be utilized as the opportunities for micro, small- and medium-scale enterprises (MSMEs), especially by the young generation who are creative and innovative and willing and able to start a business.

## CONCLUSION AND SUGGESTION

Management of education is the lifeblood of the success of an education system and can be used for other domains. Information Technology is a major supporting factor of a certain backward and forward parameters. Entrepreneurship is an alternative to develop economic sector of a nation. Technopreneur is the backbone of the business world.

All parties, especially the government, should have the same thinking to understand what education management is. The advance in information technology should be followed persistently in order to adapt ourselves. Entrepreneurship is very diverse to master one of them. Technopreneur can be implemented by all entrepreneurs.

## REFERENCES

- Adam, A. (2013). *The role of entrepreneurship on economic growth in polman regency specifically at cv bumi surya company*. Unpublished doctoral dissertation, Alauddin State Islamic University Makassar.
- Alma, B. (2001). *Entrepreneurship in Indonesia*. Jakarta: Grasindo Press.
- Alter. (1991). *Information system*. Yogyakarta: Yogya Press.
- Baharuddin, T. (2001). *Human resource management*. Intan Pariwara Press.
- Ciputra. (2009). *Entrepreneurship education*. Bandung: Bandung Press.
- Eilon, S. (1969). What is a decision. *Management Science*, 16(4).
- Haag, & Keen. (1996). *Information technology for future*. Singapore Press.
- Hidayat, R., Pitoewas, B., & Nurmalisa, Y. (2017). The influence of the development of communication information technology on students' reading interest in the library. *Journal of the Culture of Democracy*, 5 (3).
- Isyabhana. (1980). *Information technology: An introduction*. Grasindo Press Utama.
- Ludwig. (1995). *Information system*. Singapore Press.
- McClelland, D.C. (2009). Entrepreneur behavior and characteristics of entrepreneurs.
- Nasution, A.H., Noer, B.A., & Suef, M. (2007). *Entrepreneurship: Building a technopreneurship spirit*.

- Pidaria, M. (2001). *Education management of Indonesia*. Jakarta: Gramedia Pustaka Utama
- Robert, H.D., Michael, P., & Stepher (2008). *Entrepreneurship: An overview*. Kansas Press
- Rochaety, E. (2011). *Management information system edition 3*.
- Soegoto, (2009). *Creative innovation*. Yogya Press
- Stoner A.F. (1998). *Management of Education*. USA Press
- Sudarsih, (2013). *Technopreneurship*. Obor Press
- Widaya, F. (2017). *The role of education management in facing the ASEAN economic community and in strengthening the small and medium-scale micro businesses*.