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Increasing the Importance of Digital Technology as a Technopreneurship Media in Higher Education

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Abstract. In overcoming employment problems, continuous efforts are needed to reduce the disturbances felt from year to year, which is increasing, especially from college graduates. Technopreneurship course material is expected to help and provide alternative solutions, especially in seeing the changing mindset. Job seekers become job creators. Technopreneuship contains the theory and practice of entrepreneurship by delivering innovation through the application of technology owned by universities in particular and other technological resources to create innovative products to give birth to new technology-based entrepreneurs. To make it happen, it is necessary to know the conditions and obstacles of higher education in mastering the science of technopreneurship. Because currently, new universities provide an introduction to entrepreneurship, not yet in the form of technology entrepreneurship. For this reason, researchers have conducted studies to provide ideas to the parties involved in the development of Technopreneurship related to conditions, model development, and policies needed to encourage the development of Technopreneurship in universities, namely by increasing the importance of internet technology as a medium for technopreneurship in universities.

INTRODUCTION

In the development of the digital era, many young technopreneurs are innovative and able to move the wheels of the Indonesian economy for the better. Technopreneurs are entrepreneurs who utilize technology to produce promising innovations for consumers. Technopreneurs run businesses differently from other entrepreneurs. A Technopreneur's company has high growth potential and requires intellectual knowledge. So there is a strong relationship between technology development, innovation and entrepreneurship. Currently, the problem of employment in Indonesia is faced with an imbalance between job opportunities and labour supply. This gap has led to intense competition for jobs. Even college graduates, it is not easy to compete in getting a job. Efforts to accelerate the growth of new businesses are significant, especially in response to the increasing supply of labour from year to year. One of the efforts to accelerate the development of new companies is to make breakthroughs by changing the perspective of college graduates from job seekers to job creators.[1]. To realize this effort, universities have provided entrepreneurial training. However, it is still more extensive in terms of theory in practice. Even so, this can already be a magnificent essential capital. Furthermore, the entrepreneurship material needs to be added with technology skill content, namely the ability

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to innovate through the application of technology. Technology-based entrepreneurship education, known as technopreneurship, is an effort to synergize theory and practice from various competencies in science related to technology and industry[2]. Therefore, technopreneurship education can be used as a business atmosphere learning process. Technopreneurship education in the future can be developed at universities in Indonesia. However, in its development, universities are still facing various problems, both the absence of policies and the readiness of universities for teaching staff and educational infrastructure.

The term "Technopreneurship" is currently being discussed a lot in various media, both social media, mass media, and electronic media[3]. Technopreneurship is considered as a concept that is derived from "Entrepreneurship", which both share the principle of seeking as much profit as possible but focuses more on a business that applies a certain technology, not just the replication of other businesses[4].

Technology plays an essential role in the development of the modern world today; the continuous emergence of new technologies and the application of more and more technology requires continuous innovation so that the use of technology can be effective and achieve its goals. Learning about technology requires support from human resources; in this case, it can be studied at universities and requires practical work that is carried out regularly. Technology is a way to process something. Cost and time efficiency occurs to produce quality products by considering market needs, solutions to problems, application development, improvement of production effectiveness and efficiency and modernization. A technopreneur is never enough to learn only one or two technologies but must be sensitive to technological innovation, and creative ideas are needed to support it.[5].

The various advances that have been achieved began with research and new findings in the field of technology or inventions which were then developed in such a way as to provide benefits for the creators and the community of users. The phenomenon of business development in technology begins with creative ideas in several research centres that can be developed so that they have a selling value in the market. The initiators of ideas and product creators in the technology field are often referred to as technopreneurs because they can combine their knowledge through product creations/ideas with entrepreneurial skills through selling products produced in the market. Thus, technopreneurship combines technology, the ability of science and technology with entrepreneurship working alone to bring profit through business processes[6].

Currently, business developments in technology are essentially the result of synergies between owners of creative technopreneur ideas, who are generally affiliated with various university research centres, and capital providers to be used in doing business. The relationship between these three elements has encouraged the development of technology businesses in several countries, such as Silicon Valley in the United States, Bangalore in India, and several other countries. In Indonesia, the synergy between the three parties has not been well developed. The development of various innovation centres and business incubators in technology in several universities and research institutions is a positive effort to build technopreneurs in Indonesia.

Departing from Community Needs Community needs are business opportunities. Especially if there are community needs that any party in this world has not met, almost all technology-based products that are very well known and widely purchased today are those that depart from people's needs.[7]. Cars, motorcycles, cell phones, television, internet, cellular providers, social media, various electronic products, and gadgets originated from people's needs. If you want to become a technopreneur, start from the needs and problems of the community so that we can have specific ideas or ideas to provide solutions through technology that we can develop into a business core. This also makes our products attractive to the public so that we can continue to develop them for the better[8].

Enrich yourself with ideas and inspiration ideas and inspiration is the beginning of the emergence of a business idea. It takes a brilliant idea to start a business and maintain it in this highly competitive era. The products we produce do not need to be new but must be innovative by modifying something existing and making its function much better or diverse. Ideas and inspiration can sometimes come by themselves, but the best way is to develop the concept and inspiration itself. The trick is to enrich your knowledge by reading, attending seminars or workshops on technopreneurship, or talking to technopreneurs directly[9]. Whether we realize it or not, these things will give rise to an original idea that we can develop as a business, Plan carefully and do it quickly. A technopreneur must analyze the market, design a product, make a marketing strategy, determine prices and target markets, develop an organizational structure, and be responsible for all business processes. It is the ability that a technopreneur must have in general in making a business plan. But of course, the program will not come true if it is not realized. So, start as soon as possible or even now. Start with easy and simple things like finding inspiration, designing products or creating promotional strategies.

Add Value to Products The products we produce can be precisely the same as other entrepreneurs. But one thing that makes a specific product more preferable and more in demand than other similar products is value[10]. The value that we can add to our products is, of course, diverse and following the innovation and creativity of each technopreneur.

The matter described here is not about price but an added value. This will undoubtedly increase the selling value of the product, especially for people who want games that are not only entertaining but also educational.

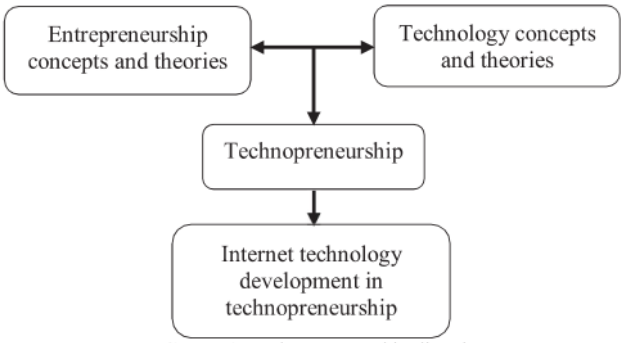

FIGURE 1. Technopreneurship direction

LITERATUR REVIEW

The literature review section will be divided into three parts: the concept of entrepreneur, technopreneur, the importance of digital media for technopreneur, and previous research related to this research.

Enterpreneur

Entrepreneurship is a value creation process by using specific resources to exploit opportunities[11]. The concept of entrepreneurship has received extensive and intensive attention from various groups, both from experts and practitioners such as economics, business management and bureaucrats working in the public sector. Several aspects need to be considered in the process of implementing the concept of entrepreneurship in a government or government, namely:

- Customer choice, or customer choice, makes it easy for service users in choosing or determine service providers according to the characteristics of their aspirations.
- Budget efficiency, rampant corruption, collusion, and nepotism that occur in the field make the government have to be more assertive in providing supervision regarding matters relating to these budget allocations.
- Innovation and creativity are an essential part of entrepreneurial-style governance. This innovation and creativity is a tool that can be a solution to overcome the dynamic changes that occur in society.

Entrepreneurship Concept Development

The concept of the entrepreneur was introduced in the 18th century in France when an economist named Richard Cantillon linked the burden of risk that the government and the caregivers must bear in running the economy.

In the current century, with technological advances and various changes, the world feels as if it has become narrow and has lost its boundaries. Along with this fact, it must be acknowledged that the progress and changes that have occurred are evidence of several multinational entrepreneurs from various parts of the world. They are present as agents of change, and they are born with several innovative ideas for the development of the business world and economic development in general.

Technopreneurship

An entrepreneur establishes a business by identifying existing opportunities and combining the necessary resources despite having to take risks and uncertainties to gain profit and growth. 12. Entrepreneurship has become a benchmark for the economy, especially creating jobs and prosperity for people in developed and developing countries. Meanwhile, according to Presidential Instruction No. 5 of 1995 explains that entrepreneurship is the spirit, attitude, behaviour, and ability of a person in handling a business or activity that leads to seeking, creating, implementing new ways of

working, technology, and products by increasing efficiency to provide services. Better and make more profit[13]. Entrepreneurship is an effort to create added value by combining resources through new and different ways to increase competition.

Technopreneurship is a collaboration between technology and an independent business spirit with the spirit of building a business to generate jobs and build the Indonesian economy and technology. Technopreneurship is one of the processes of creating a new company using technology as its basis to become an incubator to achieve success[14].

Technopreneurship development requires the concept of entrepreneurship, business skills, marketing, business plans, management or business, technology skills invention, innovation, supply and demand for technology, intellectual property management, and product or packaging design.

Digital Media for Technopreneur

The use of the Internet in business has grown, from the electronic exchange of information to applying business strategies, such as marketing, sales, and customer service. Due to the Internet, companies' marketing, products and services have become an interactive process today[15].

Facing the digital era, people have started to be creative in creating new technology-based business models. This model is called technopreneur, a form of entrepreneur, who both have an essential role for economic development in the future[16].

The Internet of things (IoT) describes the network of physical objects—"things"—that are embedded with sensors, software, and other technologies to connect and exchange data with other devices and systems over the Internet. In the future, hundreds of billions of intelligent sensors and devices will interact with one another without human intervention on a Machine-to-Machine (M2M) basis[17].

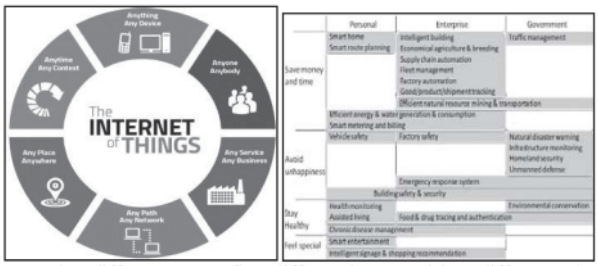

FIGURE 2. M2M application examples, different rows reflect different human wishes, different columns reflect who pay for the service/applications

METHODOLOGY

The method used is by conducting participatory observations, in-depth interviews, and documentation of data sources. The data sources of this research are divided into two, namely primary and secondary data sources. Primary data sources were obtained from the results of research respondents, including university leaders, faculties, departments/ study programs, entrepreneurial activity support units, and entrepreneurship lecturers. Data was collected through interviews, observation, and documentation. Interviews were used to collect data on policies related to entrepreneurship education and their implementation; words to collect data on the performance of lecturers and entrepreneurship support activities, and documentation is used to collect data about the results obtained from entrepreneurship education activities. The research data were analyzed using descriptive analysis techniques, both quantitative and qualitative and also ratio analysis techniques.

DISCUSSION

The importance of technopreneurship today is related to its attachment to science and technology. When a country uses an approach to increasing technological capabilities as a driver of increasing national production and in many countries as a competitive advantage strategy, then technopreneurship is a program that is included as an integral part of increasing the entrepreneurial culture. Technopreneurship needs to collaborate on culture and conceptions, namely

the culture of innovation, entrepreneurship, and creativity, as well as the concept of business incubators, research, development, knowledge management and learning organizations, which are supported by their own entrepreneurial capabilities, connectivity and collaboration.

Universities have an important role in giving birth to a young generation with high character and competitiveness that will come in the midst of the challenges and changes facing the world community today. high adaptability, competitiveness and entrepreneurial spirit are the main prerequisites that need to be possessed by today's young generation in order to become job creators or technopreneurs.

Talents from competitive universities will greatly support the development of the business world. These talents will also play an important role in the digital economy transformation process.

most of the discourse in our country directs Technopreneurship as in the second definition. Especially in this day and age, business via the Internet is growing. There is a belief that Technopreneurship is a business solution in times like this.

Education has an important role in the development of the whole person and the development of Indonesian society as a whole. Human development must be carried out as a whole, which includes the development of thinking power, heart power, physical strength, and mastery of science, technology, art and sports[18]. In addition, human development is also expected to produce people who are capable and able to play an active role in building Indonesian society as a whole.

The task of the education sector, both formal and informal, is not only to produce educated humans, but more broadly, the education sector must be able to create independent human beings. With the fact that not all Indonesians of productive age and classified as labour force can be absorbed in the world of work, then the education sector is responsible for finding solutions, how so that the output produced is not only oriented to become workers, in addition to the role of the education sector to introduce and motivate their students to understand that apart from being a worker, entrepreneurship is also a promising field to explore.[19].

To produce successful young entrepreneurs requires sincerity and seriousness from universities in carrying out the entrepreneurial campus mission. Entrepreneurship programs initiated and run by various universities, especially in Indonesia, should be used as role models in starting to focus universities on producing successful young entrepreneurs who can integrate entrepreneurial concepts and technology concepts to increase their business development potential.

The development of national entrepreneurship is a significant and noble task that requires the togetherness of all components of the nation. The growth of new entrepreneurs cannot be done partially or by one agency because each agency has limitations according to their respective main tasks and functions. The program for the growth of new entrepreneurs must be carried out comprehensively by involving all relevant agencies, both central and regional governments, educational institutions, business entities and non-governmental organizations. The spirit of togetherness and synergy of elements of the government, academia, the business world, new entrepreneurs and all other components of society need to be continuously encouraged so that more Indonesian children choose their profession to become entrepreneurs.

In the context of developing a more effective national entrepreneurship, it is necessary to consider establishing a national entrepreneurship development coordinating institution that maintains the synergy and togetherness aspect of all components of the nation by providing access to more structured coordination in the world of education, technology and creative bodies to accommodate the results of technopreneurship[20].

CONCLUSION

Entrepreneurship education in higher education is related to building entrepreneurial character, entrepreneurial mindset, and entrepreneurial behaviour that is always creative and innovative, creates added value or good values, takes advantage of opportunities and dares to take risks. Facing the challenges of a highly competitive future, entrepreneurial behaviour is needed for all fields of work or profession. Therefore, entrepreneurship education can be implemented in universities and applied to all students regardless of the knowledge studied because entrepreneurship education is not business education.

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