

The Entrepreneurial Development-Based Model on Creative Economy through Business and Technology Incubator (Case Study in Private Universities in Indonesia)

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Abstract: The role of university today is to greatly contribute in the development of Start-Up Business in accordance with its capacity as an intellectual source through the formation of the students' atmosphere into a reliable entrepreneur in the future. The strategy is to create an entrepreneurial atmosphere in the university through a business and technology incubation model development that focuses on start-up business based on the creative economy sub-sector. The purpose of this research is to strengthen the incubation institute of the business and technology in the university with the approach of model and method of work, the development of business incubation program, and also to produce tenants of start-up business in the university. The result of this research found that there is effective model of business start-up development in university through an ideal and effective business incubation that is replicated and implemented by other universities. The next finding in establishing an entrepreneurial atmosphere model is through a start-up competition program among universities.

Keywords: Entrepreneur, Technology Incubation, Development and Start-Up Competition.

INTRODUCTION

The current development, adoption, and lifestyle changes are supported by the massive internet technology penetration in Indonesia. Moreover, a person behavior is also positively influenced by the current impacts of the development of information and communication technology - especially the internet and social networks - so that a lot of business people integrate their business models by utilizing the digital platforms.

It happens because of the number of internet users who are often increasing every year along with their new lifestyle and creative business that utilizes the developing information and communication technology. This condition raises a new wave of entrepreneurship which combines the creative economy and information technology sub-sectors in the form of business start-up. This article attempts to explore the theoretical approach about entrepreneurs, technology incubation, development and start-up competition, and organizations in implementing higher education information systems. Moreover, the business & technology incubation encounter the similar problem to other universities. It is about the absence of a clear business incubation development model that raises an implementation on planning and management changes in entrepreneurial culture that can be taken as a guide to build the information systems for higher education institutions and to make institutions more sensitive to the needs of change demanded by stakeholders.

The best strategy conducted in the change management is able to be run by accelerating the implementation of the information system in higher

education institutions by considering the business start-up as an embodiment of the development of the creative economy industry through the existence of information and communication technology which is known as the creative economy-based business start-up. There are many things that are predicted to trigger the idea of entrepreneurship development in universities on the creative economy. They are: the empowerment of technopreneurship incubation and university start-ups, the creation of co-working space at technology incubation, the socialization of entrepreneurship model branding, and the development of healthy enterprise entrepreneurship application ideas in universities that utilize information systems. Universities can play an important role in the start-up development seen on the creative economy. The higher education must be understood as an intellectual resource in which students are informed into a reliable future entrepreneur of Indonesia. In other words, the higher education must be manifested in the form of Three Pillar of Higher Education - Education, Research, and Community Service - that instills entrepreneurial values by utilizing information technology and creative economy. Therefore, this article is written by focusing on the

entrepreneurial development-based model on creative economy through business and technology incubation.

LITERATURE REVIEW

Entrepreneurship Intention

Naturally, when individual has intention or interest, he will love what he intends to do with better results, or the other way around. This also applies in starting a business. With the intention, it is expected that individuals will behave better to pro-mote he progress and development of his efforts. It is important to remember for the business owners, that the company success depends on the emergence of new ideas. That is from the spirit of loving the job with high intention.

Gender towards Entrepreneurship Intention

As referred to Leroy et al., [1], entrepreneurial activities undertaken by females tends to be less than males. Cromie [2] in Leroy et al., [1] suggested that the motivation of men choose entrepreneurship for wealth, while females choose entrepreneurship as a career they gain over the time that is unsatisfactory. Females re relatively more expensive aspects of 'social pressure' against the decision.

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Perceived Behavioral Control

Lo Choi tung [4] argued that perceived behavioral control is related to the presence or absence of support and resources as well as barriers to entrepreneurial behavior. Langowitz and Minniti [3] in Leroy [1], found that the trend of women starting new businesses related to their ability to get opportunities in entrepreneurship and self-assessment on the skill and knowledge. For example, Hidayat and Nugroho [5], described that perceived behavioral control is a person's perception towards his ability to behave. Inside that perception, there are two aspects to consider: first, to what degree the person has control over a behavior (controllability), and secondly, how confident the person feels able to perform a behavior (self-efficacy). Hence, perceived behavioral control has two effects that

influence the intention to act and direct influence to the behavior.

SWOT Analysis

SWOT analysis is the analysis firstly stated by Albert Humprey in the 1960-1970s. SWOT analysis is a classic strategic planning instrument. By using strengths, weaknesses, opportunities, and threats, this instrument provides a simple way to estimate the best way to implement a strategy. This instrument helps planners what can be achieved, and what things need to be considered by them (Daniel Start and Ingie Hovland) [6].

Strength is the force considering strengths when starting a business. The most basic strengths are mature motivation, capital, and planning.

Weakness is the shortcoming considering weaknesses of our businesses, products, and sources of production. The point of weaknesses is a weakness that can be strengths which meant that the weaknesses are able to be covered up so that they are able to be repaired.

Opportunity is the chance considering existing opportunities. The opportunity is the opportunity to take full responsibility. To start a business, opportunities must be carefully calculated.

Threat is the threat correlated with the external condition such as competitors, environment, and bill

METHODS

The type of this research was a qualitative research. The data collecting techniques used in this research were: doing observation, interviews, seminars, workshops, trainings, and questionnaires related to stakeholders who wanted to become entrepreneurial stakeholders. The settings of this research were the student affairs, Business and Technology Incubation, Entrepreneurship Lecturer Team, Grant Recipient Team, Entrepreneurial Community, and Business Start-up in Private Universities in Southern Sumatra. The number of respondents of this research was 500 students from 14 private universities in Southern Sumatra (South Sumatra, Lampung, Bengkulu, and Bangka Belitung). The sampling technique used in this research was non-random sampling (accidental sampling). The samples were the students who were attending lectures. The analytical technique used in this study was a qualitative data analysis technique using evaluation and triangulation modeling.

Phase to Build Entrepreneurship

Science and technology on entrepreneurship were carried out based on 6 main stages as the form of business start-up development that had been prepared from joint discussions between the team and

entrepreneurial stakeholders. The stages were Technopreneurship Success Incubation Stages which focused on start-up business development that tended to be accepted by the market. This Technopreneurship Incubation runs this success and the service team collaborates with several parties on Business and Technology Incubators, Student Organizations, Entrepreneurial Communities, Grant Recipients, and other related parties. This is conducted because it is impossible for the team to do it alone in the development of entrepreneurship so that there was a synergistic collaboration from entrepreneurial developer stakeholders to be able to continue the stage that has been prepared.

Data Analysis Technique

The analytical method used in this article is a SWOT analysis. This method was a strategic planning method used to evaluate the Strengths, Weaknesses, Opportunities, and Threats in a project or business speculation. The process involved specified objectives determinant of business or project speculation and internal and external factors in achieving the objectives organization. SWOT analysis was applied by analyzing and sorting things affecting four factors by applying in the SWOT matrix image. SWOT analysis produced several alternative strategies. Alternative strategies were obtained from the combined results of several factors: (1) strengths, (2) weaknesses, 3) opportunities, and (4) threats

FINDINGS AND ARGUMENT

The concept of idea development and entrepreneurial strategic implementation among universities in the SWOT approach is divided into internal and external factors.

The changing process of the entrepreneurial culture among universities was a crucial process for each individual in the organization. Moreover, it became a question why it had to change and when it did change. It took a great effort to get a share of those who were involved in the process of entrepreneurial change. SWOT analysis was conducted in the internal factors involving all internal resources (human resources, technology, and investment). All parties was also involved externally such as users, board of directors, and project owners. External and internal factors were crossed between strengths vs opportunities (so), weaknesses vs opportunities (wo), strengths vs. threats (st), and weaknesses vs threats (wt), to generate the change management strategy programs. Afterwards, the result of SWOT was selected due to a large number of results obtained from the eligibility criteria. The change management strategies were grouped by using Kurt Lewin's theory and the 8 steps of John Kotter's theory so that the entrepreneurial change management strategies were obtained in the form of the excellent programs of entrepreneurial change management with

applications related to entrepreneurial interest among students. These the entrepreneurial change management strategies were (1) building and implementing the incubation stages of technopreneurship and start-up and (2) managing the Co-Working Space at technology incubation.

Technopreneurship and Start-up Incubation Empowerment among Universities

The effective strategy related to technopreneurship and start-up incubation was to build a change in entrepreneurial culture among universities. The first strategy was the empowerment program for technopreneurship and Start-incubation with several stages (photography, advertising, software, markets & art goods, performing arts, research & development, interactive games, and culinary). Technopreneurship and Start-up in the business sectors was supporting the creative economy which were also included in the elements of technology - information technology and the internet. The efforts to carry out this activity included teams and specific parties that model the stages of the technopreneurship development activities tended to involve various kinds of entrepreneurial parties / stakeholders in universities. The second strategy was the management strategies in the form of Entrepreneurship Program & Seminar Socialization stage which was done after preparing and coordinating with parties related to the Science and Technology program for Entrepreneurship and the concept of Technopreneurship activities. The next stage was the program socialization. The socialization of the IbK program was carried out in the form of an entrepreneurial seminar. Entrepreneurship seminar with the theme "Building a Strong Business Start-Up ". The seminar was attended by stakeholders from students taking Technopreneurship and alumni courses. The speakers who were the speakers came from various parties, including the internal parties who gave positive feedback on business start-up tips. The third was the stage of the business workshop after the socialization and entrepreneurship seminar the following stage was carried out. It was the stage of the business workshop where the participants were motivated again for becoming entrepreneurs equipped with skills to conceptualize and manage business, to prototype products / services, to validate markets including (1) a brief understanding of technopreneurship and (2) industry visits to several partner companies. This activity was carried out to provide comprehensive knowledge through direct observation to companies. In addition, program participants was done to get tips and tricks for running a business - both in the area of corporate management and marketing strategies directly from the practitioners. The industrial visit sites were divided into (1) the category of start-up companies, and (2) companies that had been established and had a strong technology in running their businesses; and (3) workspace - thinking design & product prototyping.

After the brief and visit activities, program participants run important stages in technopreneurship activities. This workspace aimed to improve the competencies of

participants and to improve the ability of participant to form start-up businesses.

<p style="text-align: center;">Internal Factor</p> <p style="text-align: center;">External Factor</p>	<p style="text-align: center;">Strengths (S) :</p> <ul style="list-style-type: none"> • Strength was a positive and prominent risen from universities used as a competitive advantage. This competitive advantage model included well-known name brands, copyrights and patents, large market shares, reputations of the Three Pillar of Higher Education, extensive graduate absorption networks and high entrepreneurial cultures. • Other strengths were human resources experts in information technology and the availability of information technology facilities for academic services using computerized systems. 	<p style="text-align: center;">Weaknesses (w):</p> <ul style="list-style-type: none"> • Weaknesses was the deficiencies which were associated with certain matters that universities did not have to compete in the global market including; unknown name brands, reputations of the Three Pillar of Higher Education were not good in the eyes of consumers, the education costs were relatively expensive compared to competitors, and education costs were less competitive. • Another weakness was the implementation and maintenance of information technology facilities and infrastructure that had not optimal, the updating of information technology facilities and infrastructure had not been effective, the awareness of academics in accessing information technology development was so fast, and lack of information technology-based human resources.
<p style="text-align: center;">Opportunities (O):</p> <ul style="list-style-type: none"> • Opportunities (opportunities) were part of the external environments of higher education that could be a potential that could increase the surplus, and the growth, learning and business processes of education. This environment included; improving economic conditions so that it increased the opportunity for people to receive tertiary education, the demand for service contributions from other tertiary graduates, the creation of new technologies that enabled graduates/distribution of graduates to be more efficient or that improved the quality of labor / education services, government regulations which supported the business world. • there was an opportunity by opening of new labor distribution channels among countries; the rapid development of information technology as a means to provide 	<p style="text-align: center;">Analysis (SO)</p> <ul style="list-style-type: none"> • The strategy was carried out on condition that our business had strengths. Moreover, opportunities (SO) is an aggressive strategy. Based on the strategy, a strategy was implemented in the form of: (1) system integration was running well, (2) licensed software supports give trust to stakeholder to establish cooperation in the use of information technology; and (3) the availability of internet services and human resources that had competencies in the field of information technology so that information systems in accordance with government regulations were created. Strategic activities related to analysis (SO) were brand socialization programs called entrepreneurship models. 	<p style="text-align: center;">Analysis (WO)</p> <ul style="list-style-type: none"> • We can also apply the stability on condition that our business had weaknesses but there were still opportunities or opportunities (WO). SWOT analysis could produce several alternative strategies. The alternative strategy was derived from the combined results of several factors reflected by (1) the rapid development of information technology so that the maintenance, application and renewal of information technology could be optimized to foster awareness of the importance of using information technology; and (2) the opening of opportunities for cooperation with stakeholders could be enhanced by the availability of certified HR so that it provided additional facilities to improve information technology.

<p>Committed to Service Excellence (C2SE); opening opportunities to establish various forms of cooperation with the government and the private sector; and government regulation in the field of entrepreneurship to open opportunities in the development of information systems and entrepreneurial learning.</p>		<p>Strategic activities related to the analysis (WO) were developing ideas for the healthy entrepreneurship ikaster application for universities.</p>
<p>Threats (T):</p> <ul style="list-style-type: none"> • Threats were the matters relating to external and internal problems. External problems were competitors, the environment, or the bill. Internal problems included a person, worker, or family that did not agree to work outside, competition in the entrepreneurial world and a few of people needed to share their knowledge. • Another threat was a large number of competitors from public and private universities to get funds prepared by government for the development of information technology and entrepreneurship. • The development of information technology is faster to support the development of entrepreneurship. • The alignments of government through regulation related to the advancement of entrepreneurship education program. 	<p>Analysis (ST)</p> <ul style="list-style-type: none"> • The strategy was utilized when our business had the power to threat (ST). The results of SWOT analysis generated several alternative strategies. The alternative strategy was in the form of a dedication obtained from the results of a combination of several factors. They were improving the development of information technology to support entrepreneurs in the university environment and facilitating access to funding sources from foundations and collaboration with outside parties. The relevant model related to ST analysis was the empowerment of technopreneurship incubation and university start-up 	<p>Analysis (WT)</p> <ul style="list-style-type: none"> • The strategy used to carry out SWOT analysis was a defensive strategy. This strategy was implemented when there were weaknesses and threats (TW). SWOT analysis produced several alternative strategies. They were alternative strategies obtained from the combined results of several factors. This combination was realized in the strategy for monitoring and evaluation of finance, facilities, and infrastructure so that the strategy of mastering information technology supported the acceleration of the entrepreneurial culture among universities. Strategic activities related to analysis (WT) were developing Co-Working Space in Technology Incubation

Developing Co-Working Space in Technology Incubation

The IBK team and the in workers took the initiative to create a useful co-working space for workspace and business consultation for tenants. This was done because the inclusion of tertiary institutions did not have a special room for discussion and gathering of entrepreneurial activists even though the location for gathering and socializing was very important to establish business relationships and operations. This workspace space also acted as a temporary office for tenants who had not obtained a place for business or needed an office for their start-up business. This co-working space was designed in a relaxed and not rigid style so that the tenants felt at home in the room. Another objective was that the entrepreneurial community was expected to develop because there was already a place to gather and discuss. This co-working space was called grow + where the philosophy was a place and space to grow together. Presentation of business plans & product / service prototypes that determined the program could be accepted by the

business model to be funded and enter the incubation process or not.

Development of Information System-Based Entrepreneurship Idea among Universities

The concept of idea of entrepreneurship activities was based on information systems by using information technology components and classification of entrepreneurial services in universities. There were 6 components of this information technology study developing basic business ideas: hardware, people, data, network, software, and procedures [7]. Hardware was all information technology artifacts in the form of hardware used to store data. People were people who used information technology artifacts to solve their problems. People could be a group of individuals who worked independently and could also be individuals in groups. Data were all forms of basic information formats whether structured or unstructured stored in hardware Data could be in the form of information, files or folders. Network was all hardware that bridged data transfer among hardware. Software was the tool running hardware or network. The procedure was all business

processes that run on software. Based on the concept of entrepreneurial development in universities and SWOT analysis, entrepreneurship activities were carried out through the cluster mapping of healthy universities which implemented an entrepreneurial strategic program based on the information system of universities that carried out entrepreneurship programs. Variables forming the cluster in question were leadership, empowerment, internal management, resources, and generating value.

CONCLUSIONS

- The team implements science and technology programs for entrepreneurs by involving various kinds of parties from research and community service institutions, business and technology incubators, entrepreneurial communities, and entrepreneurship lecturers.
- The success of technopreneurship incubation and entrepreneurship development model is through business and technology incubators that currently become the basis for implementing entrepreneurial activities and restructuring the university's business and technology incubator functions.
- Socialization, seminar, workshop, and business matching are done to get tenants that give development funds so that the tenants are ready to develop in the further incubation process.
- The continuity of entrepreneurs among universities, especially students and alumni, is the

project pilot designed to attract students and alumni to conduct business start-up.

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