Impact of the Implementation of Business Model Canvas (BMC) on Improving Student Entrepreneurship Learning Outcomes

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Abstract: Student entrepreneurial intentions in Indonesia are still low and need to be improved. One of the many ways to do this is to organize entrepreneurship education. However, what kind of entrepreneurship education model that is considered useful still needs to be developed. This study tries to teach entrepreneurship by implementing Business Model Canvas (BMC) because it is believed to be able to increase knowledge that will have an impact on increasing student entrepreneurial intention. The method used in this study is a quasi-experiment involving two classes of entrepreneurship courses at the Universitas Negeri Medan Economics Faculty. One class as an experimental class (BMC) and the other one as a control class. Hypothesis testing is done by the “t” test. The results of the study showed that BMC could be implemented well and received a very good response from students. The learning outcomes of the BMC application class proved to be significantly different from the learning outcomes in the control class. The learning outcomes of the BMC class are higher than the control class.

1 INTRODUCTION

The number of civil servants applicants for 2018 is 4,081,203 while the available formations are only 238,015 (Kompas.com, 11 November 2018). This condition illustrates how high the public interest is to become civil servants. This situation illustrates that entrepreneurial intentions are still low. The orientation of the community is still more likely to find work rather than to create their own jobs. Students as one component in it should more rational and critical to get civil servants formation that limited. Knowledge, insight and critical power possessed by students should be more oriented towards developing their own business rather than fighting for very limited job vacancies. This phenomenon is the impact of the low intention of student entrepreneurship as explained by Indarti & Rostiani (2008). Student entrepreneurial intentions in Indonesia are still weak. Then when viewed in August 2015, 11.97% of unemployed people in Indonesia were college alumni. Furthermore, research by Hutahusty (2016) also supports that only 25.53% of students are ready for entrepreneurship even after receiving additional education.

Entrepreneurship education is increasingly calculated to improve the economy of a country. According to Sirelkhatim & Gangi (2015) entrepreneurship education is one of the fastest growing education fields globally. In Indonesia, entrepreneurship education has been taught at the education level from high school to college. Entrepreneurship education is expected to contribute to improving the culture of an entrepreneurial society. The extent to which entrepreneurial education affects students is still a matter of debate in various circles (Fiet, 2000). The debate is related to the accuracy and effectiveness of entrepreneurship teaching methods (Westhead, Storey, & Martin, 2010); (Westhead et al., 2010).

According to (Jack & Anderson, 1999) teaching entrepreneurship education aims to integrate science (business and management competencies) and art (eg, creative and innovative thinking). Entrepreneurship learning, in an academic context especially at universities, is based on theoretical aspects and practical knowledge (Heinonen & Polkkijoki, 2003). Research results by Allan A. Gobb (2015) show that in developing entrepreneurial behavior we need a process that includes the identification of traits related to
entrepreneurship, both in the form of skills and attributes inherent in entrepreneurship.

According to P. Kyrp, (2003) entrepreneurship education must be directed at learning activities that can improve understanding, knowledge about business and entrepreneurship for people who want to become entrepreneurs. The level of knowledge that students have on entrepreneurship readiness influences their desire for entrepreneurship. For this reason, entrepreneurship education on campus must be designed for learning activities that can internalize entrepreneurial character values. However, entrepreneurial learning has so far been minimal in variety and not many use models that lead to the formation of values (affection). Entrepreneurship learning models at the vocational school level are generally lectures, product selling assignments, and observations (Winarno, 2009). As a result, the effectiveness of learning still needs to be questioned in developing entrepreneurial attitudes and character. Research results by Rahayu Wening Patni (2008) strengthen the condition that entrepreneurial education has no significant effect on entrepreneurial attitudes. Furthermore, Priyanto, (2010) states that entrepreneurship learning has not significantly produced entrepreneurs, and the products that are generated from entrepreneurship education are "craftsmen" and thinkers only."

In this study, entrepreneurship education was taught by applying the Business Model Canvas (BMC) introduced by Alexander Osterwalder. BMC is a way to make a business plan by documenting it in 1 page with nine business area blocks. The goodness of this model can be used for all types and business models, accelerating to know the strengths and weaknesses of the business, the process of analyzing needs and profits is done quickly. Then, according to Türko, (2016) the use of BMC allows companies to increase revenue and profits. The application of BMC in entrepreneurship learning aims to improve knowledge or learning outcomes.

2 THEORETICAL FRAMEWORK

According to Raposo & Paço, (2011) entrepreneurship since the last three decades has emerged as an economic power in the world. This encourages the importance of research on entrepreneurship education. Entrepreneurship education is increasingly important because according to Raposo & Paço, (2011) entrepreneurship education provides knowledge in the form of; (a) the ability to recognize opportunities, (b) the ability to take advantage of opportunities, generate new ideas and find the resources needed, (c) the ability to make and operate new devices, and (d) the ability to think creatively and critically. In addition to knowledge and skills in business, entrepreneurship education also mainly develops beliefs, values, and attitudes, and aims to make students confident and consider entrepreneurship as an alternative to employment or as unemployed (Jose Shanchez, 2011).

Entrepreneurship education is essential to help increase entrepreneurial intentions (Nowiński, Haddoud, Lančarić, Egerová, & Czeglédi, 2017). Their findings explain the importance of entrepreneurship education given to students because it provides knowledge and can change one’s mindset. According to Robles & Zárraga (2015) entrepreneurship education can influence the attitudes and aspirations of young people towards entrepreneurship. The level of knowledge (learning achievement) possessed will have an impact on entrepreneurial intentions as explained by Dogan & Ebru (2015) that there is a significant positive correlation between student achievement in the classroom and entrepreneurial intentions.

Furthermore, according to Ismail et al., (2009) states that entrepreneurship course, Tessaema Gerba D (2012); Premand, Brodmann, Almeida, Grun, & Mahdi Barouni, (2016) entrepreneurial education influence entrepreneurial intentions. According to Dehghanpour (2015) added that by completing an entrepreneurship course it could increase entrepreneurial intentions by 1.3 times. Then, according to Martin et al. (2013) found a significant relationship between Entrepreneurship and Training Education (EET) with the formation of human capital assets related to entrepreneurship. Furthermore, Nursito et al., (2013) states that entrepreneurship education will shape students' entrepreneurial knowledge and have a positive and significant effect on entrepreneurial intentions. So Barba-Sánchez & Atienza-Sahuquillo, (2017) suggest integrating entrepreneurship education into technical education to increase entrepreneurial intentions. Priority for entrepreneurship education to develop entrepreneurial attitudes, skills and entrepreneurial behavior (Dogan & Ebru, 2015).

Business Model Canvas (BMC) Learning

One document that must be prepared before running a business is making the right business plan. Alexander Osterwalder introduced a business model, Business Model Canvas (BMC). BMC is an abstract concept design of a business model that represents business strategies and processes (Pigneur, 2010). BMC is a draft concept of how to make a business plan by documenting it in 1 page with nine business area blocks. The BMC model in learning
entrepreneurship is considered relevant for making a business plan.

Figure 1: Business Model Campas (Foundry, B. M., 2014).

The BMC model can overcome student difficulties in making a feasible business plan and at the same time be able to know the strengths and weaknesses of the business, the process of needs analysis and rapid profit analysis. Those nine blocks are consists of: (1) Customers Segment, (2) Value Proposition, (3) Customer Relationship, (4) Channel, (5) Revenue Stream, (6) Key Resource, (7) Key Activities, (8) Key Partnership, (9) Cost Structure. For more detail can see figure 1.

3 RESEARCH METHOD

This study uses an experimental method, carried out at the Economics Faculty, Universitas Negeri Medan. The study population was all entrepreneurship classes at the Economics Faculty, Universitas Negeri Medan in the odd semester 2018. The sample class was determined by two classes. One class as BMC treatment (experimental class) and one other class as the control class and determined by purposive random sampling.

Indicator of BMC Quality

To assess the quality of learning with Business Model Canvas (BMC) curriculum quality criteria were proposed by Nieveen (1999), namely (a) validity, (b) practicality, and (c) effectiveness. The way to test the learning model is presented in Table 1.

Table 1: BMC Quality Testing

<table>
<thead>
<tr>
<th>Aspect</th>
<th>Instrument</th>
<th>Assess or</th>
<th>Assessed Material</th>
<th>Criteria</th>
</tr>
</thead>
<tbody>
<tr>
<td>Students respond</td>
<td>Observati on sheet</td>
<td>Students</td>
<td>devices and implementa tion of BMC</td>
<td>Clear</td>
</tr>
</tbody>
</table>

Practicality of model

<table>
<thead>
<tr>
<th>Observati on sheet</th>
<th>Expert</th>
<th>Implemen tation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Test</td>
<td>Research subject</td>
<td>Learning outcomes</td>
</tr>
</tbody>
</table>

Effective ness of model

Data Analysis Technique

To find out whether the BMC model is useful for improving learning outcomes is carried out by the "t" test. To facilitate the calculation of the data used SPSS assistance.

Result and Analysis

The reaction principle of the applied BMC model first looks at student responses to the design and implementation of BMC, and the results are presented in Table 2.

Table 2: Student responses to BMC Learning Tools and Implementation

<table>
<thead>
<tr>
<th>Aspect</th>
<th>Respond</th>
</tr>
</thead>
<tbody>
<tr>
<td>Respondents’ feelings about the component</td>
<td>Satisfied</td>
</tr>
<tr>
<td>Subject matter</td>
<td>100</td>
</tr>
<tr>
<td>Applied BMC model</td>
<td>100</td>
</tr>
<tr>
<td>Students’ work sheet (business plan)</td>
<td>100</td>
</tr>
<tr>
<td>Learning atmosphere</td>
<td>100</td>
</tr>
<tr>
<td>Lecturer appearance</td>
<td>100</td>
</tr>
<tr>
<td>The way lecturers teach</td>
<td>100</td>
</tr>
<tr>
<td>Average (%)</td>
<td>100</td>
</tr>
<tr>
<td>New</td>
<td>85</td>
</tr>
<tr>
<td>Not new</td>
<td>93</td>
</tr>
</tbody>
</table>

Respondent’s opinion to the component

| Subject matter | 83 | 17 |
| BMC Model      | 97 | 13 |
| Learning atmosphere | 79 | 21 |
| Lecturer appearance | 79 | 21 |
| The way lecturers teach | 86 | 14 |
| Average (%)    | 85 | 15 |
| Clear          | 100 | 0,00 |
| Unclear        | 93 | 7     |
Student responses to the application of BMC viewed from each aspect turned out to be 100% happy, 85% said new, 96.55% said the language used was clear, and 93% understood. Furthermore, 89.5% of students asked for the application of the BMC model to be interesting, and only 10.50% stated that it was less attractive.

The results are given by the observer on all aspects of the observation starting from the preliminary stage, the core activity, closing, managing the time and atmosphere of the class are on an average score greater than 4 in the excellent category. This explains that the application of BMC can be implemented well and is feasible to apply to teach entrepreneurship courses.

To find out whether the data are normally distributed, the normality test results are obtained, and it is obtained that the learning outcome data meets the conditions under which Asymp. Sig. (2-tailed) 0.200> 0.05 as described in Table 3. Furthermore, the homogeneity test results by looking at the significance value of 0.619 > 0.05 means that the two groups of learning outcomes of the experimental class and the control class are homogeneous.

Based on Table 6 it is known that the application of entrepreneurial learning with Business Model Canvas (BMC) proved to be significantly different...
from learning outcomes with the control class. Learning outcomes seen from the mean class of BMC are higher than the mean of control classes. The findings of this study are in line with research by Raposo & Paco (2011) which states entrepreneurship education provides knowledge about recognizing opportunities, utilizing opportunities, creating and operating new devices and the ability to think creatively and critically. Furthermore, Robles & Zagara (2015) added that entrepreneurship education can influence the attitudes and aspirations of young people towards entrepreneurship. Then, Raposo & Paco (2011) states the same thing that entrepreneurship Education can increase knowledge, improve skills, competencies, and attitudes that can determine future career choices. Furthermore, they suggest entrepreneurship education and training should be more concerned with changing attitudes than knowledge because the effect can be more significant in business creation and the ability to overcome obstacles in entrepreneurship. Nursito & Nugroho (2013) also stated that entrepreneurship education shapes students’ entrepreneurial knowledge and positively and significantly influences entrepreneurial intentions.

Sirelkhatim & Gangi (2015) mapped the content and methods of teaching entrepreneurship education in three themes; first, providing theoretical content about entrepreneurship and teacher-centered teaching methods with the aim of increasing students’ awareness of entrepreneurship as a career choice, the second and third themes of teaching through the practice of entrepreneurship which aims to inherit entrepreneurship and learn more student-centered, and designed to build entrepreneurial skills. This will create an environment where students can emulate real business situations or really allow them to start or contribute to the business creation.

4 CONCLUSIONS

Entrepreneurship learning with BMC can run well in class and get an excellent response from students. Classes taught with BMC proved higher learning outcomes than the control class. Entrepreneurship learning needs to be taught with models that encourage the internalization of the entrepreneurial character. One model that can be used is Business Model Canvas.

REFERENCES


