

# IMPROVING STUDENTS' ENTREPRENEURSHIP INTENTION THROUGH ENTREPRENEURSHIP EDUCATION WITH OPPORTUNITY RECOGNITION AS AN INTERVENING VARIABLE

Abstract

**Aims:** The unemployment rate is very high. To reduce this, a large number of jobs are needed. If for a few years ago, university graduates were oriented to get a job after graduation, then with the existence of entrepreneurship education, they will be able to change the orientation of students to be able to create new jobs through entrepreneurship.

**Study Design:** Quantitative Research

**Methodology:** This study explores the entrepreneurship education carried out in universities by distributing research questionnaires to 123 students of the Faculty of Economics and Business, University of Technology, Sumbawa using an incidental sampling technique. The data obtained were then processed by researchers using structural equation modeling (SEM) analysis.

**Results:** After conducting the Sobel test, the results are it was concluded that opportunity recognition is a variable that mediates the relationship between entrepreneurship education and entrepreneurial intentions because the Sobel test score  $(4.495) > 1.960$ .

**Conclusion:** Entrepreneurship education can increase opportunity recognition. Then, opportunity recognition directly affects students' intentions to become entrepreneurs. Entrepreneurship education in the study was found to increase students' entrepreneurial intentions. Further researchers are advised to add other variables that can increase entrepreneurial intentions such as the surrounding environment, self-efficacy and locus of control.

**Keywords:** Entrepreneurship education, opportunity recognition, entrepreneurial intentions.

## 1. INTRODUCTION

National education has a future vision to form Indonesian people who have a dignified character as mandated by Law no. 20 of 2003. The achievement of these goals is still very difficult to know with certainty related to the formation of entrepreneurial attitudes and behavior of students. So far, the measurement has been carried out using qualitative methods without any national standards that can be used as a guide for the assessment. Since the implementation of the decentralized system, it has resulted in changes in several aspects of life, including in the field of education. Decentralization gives management freedom to manage education. This is used as a strategy in the management of education that is useful for producing higher quality outputs academically or non-academically. Academic quality is related to improving the quality of students related to the field of science they are engaged in, while non-academic itself is related to the ability of students to be able to work independently by opening businesses/jobs independently. Or it can be said that education graduates are required to be able to have high entrepreneurial behavior.

Throughout the world entrepreneurship has become very important and has become the focus of various countries including Indonesia. Even the economic progress of a country is

measured using the number of entrepreneurs owned by that country (Valliere & Peterson, 2009). Currently, the number of entrepreneurs in Indonesia is 3.47% of the total population. This figure increased from the previous year but was still lower when compared to countries such as Thailand where the number of entrepreneurs was 4.26%, while Malaysia was 4.74% and Singapore was 8.76% (Okayzone, 2021). Therefore, the Indonesian government must encourage its citizens to become entrepreneurs. One of the efforts made by the Government is to involve universities by including entrepreneurship courses in the university curriculum in order to create an entrepreneurial ecosystem on campus so that later it will encourage students to intend to become entrepreneurs.

Sumbawa University of Technology, hereinafter abbreviated as UTS, is one of the universities in Indonesia that is committed to forming the entrepreneurial spirit of its graduates by equipping students with entrepreneurship and technopreneurship courses which are made one of the mandatory courses at the Faculty of Economics and Business. In addition, the coordinator of a business incubation center for students is appointed with the aim of creating an entrepreneurial environment and providing opportunities for access to capital for student businesses. This entrepreneurial environment was formed with the aim of building students' intentions to become entrepreneurs. With this interest in entrepreneurship, it will then lead to entrepreneurial behavior (Ajzen, 2005). Students' readiness to become entrepreneurs in the future can be seen from their interest in entrepreneurship (Krueger et al., 2000). An important factor that can foster interest in entrepreneurship is entrepreneurship education (Cahyani et al., 2020).

Entrepreneurship education provides students with the motivation, knowledge and skills that are important to be able to make the business they start a success (Lee et al., 2005). Another purpose is as a consideration for students to become their careers in the future by developing a positive attitude towards entrepreneurship (Fayolle & Gailly, 2008). Several studies have found that entrepreneurship education affects entrepreneurial intentions (May et al., 2020). Temporary Khalifa & Dhiif (2016) found otherwise.

Entrepreneurship education will then be able to make students have the ability to see business opportunities (opportunity recognition). The ability to read opportunities is the most important thing for an entrepreneur to have before he can then start his business (Ozgen & Baron, 2007). Research conducted by Abuzuhri & Hashim (2017) stated that entrepreneurship education can affect opportunity recognition. However, the opposite was stated by Min-jung & Park (2017), opportunity recognition is not influenced by entrepreneurship education.

Entrepreneurship is the study of who, how and what influences a person to create goods and services that suit the future (Scott & Venkataraman, 2003). So opportunity recognition is very important for entrepreneurs because it is a process of discovering new business ideas that have a tendency to experience profits in the future (Baron & Byrne, 2004). Students who have opportunity recognition are students who are able to see the possibility of a business to be run because it has potential profits. Research conducted by Rambe (2016) argued that students who have opportunity recognition will be interested in becoming entrepreneurs.

## **2. MATERIAL AND METHODS**

This study performs structural equation modeling (SEM) analysis through four stages including (Ghozali, 2014) :

1. Creating Inner Models
2. Creating Outer Models
3. Conducting Model Evaluation
4. Doing Hypothesis Testing

The sampling technique used incidental sampling with a total of 123 respondents who were students of the UTS Faculty of Economics and Business. Descriptive analysis using the three box method with a range of index values as follows (Ferdinand, 2014) :

70.01 – 100.00 : Tall

40.01 – 70.00 : Currently

10.00 – 40.00 : Low

### 3. RESULTS AND DISCUSSION

#### Descriptive statistics

This study uses 3 research variables, namely 1) entrepreneurship education, 2) opportunity recognition, and 3) entrepreneurial intentions. The three box method is used in this study to try to describe the perceptions of the respondents regarding the statement items given in the questionnaire.

**Table 1. Entrepreneurship Education Perception Index**

Statement	Index (%)	Category
PK1	81.30	Tall
PK2	90.57	Tall
PK3	85.53	Tall
PK4	84.72	Tall
PK5	86.18	Tall
Total	85.66	Tall

Source: Research processed data, 2021

The results in table 1 show that according to respondents' perceptions of entrepreneurship education provided through entrepreneurship and technopreneurship courses is able to provide students with experience and ability to be more creative, innovative, realistic, independent and communicative.

**Table 2. Perception Index of Opportunity Recognition**

Statement	Index (%)	Category
OR1	66.99	Currently
OR2	78.05	Tall
OR3	81.14	Tall
OR4	76.91	Tall
OR5	82.28	Tall
OR6	78.05	Tall
OR7	86.18	Tall
Total	77.07	Tall

Source: Research processed data, 2021

Respondents' perceptions of the statement of the opportunity recognition variable stated that students have a high ability to read opportunities to open new businesses. However, there is one statement that has a moderate category.

**Table 3. Entrepreneurial Intention Perception Index**

Statement	Index (%)	Category
NB1	89.43	Tall
NB2	82.93	Tall
NB3	81.79	Tall

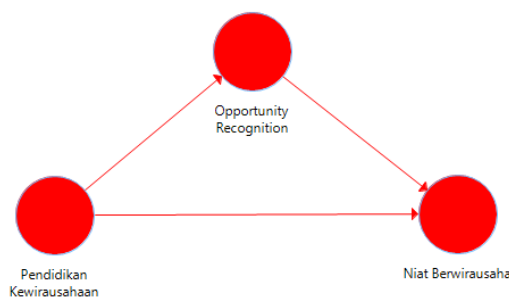
NB4	80.81	Tall
NB5	83.58	Tall
NB6	85.85	Tall
Total	84.07	Tall

Source: Research processed data, 2021

The entrepreneurial intention of students is very high. This can be seen from the results of the student perception index. This indicates that the desire of students to be able to open a new business or do business is very large.

### Creating Inner Models

The first step in analyzing structural equation modeling (SEM) is to create an inner model.

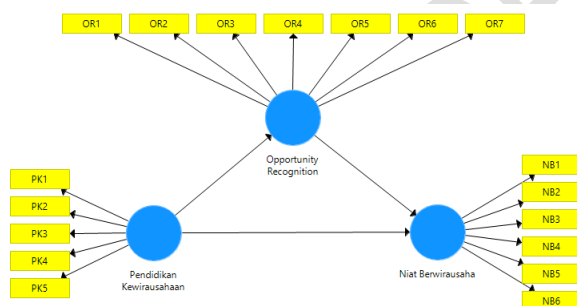


**Figure 1. Inner Model**

Source: Software SmartPLS 3.0 (2020)

### Creating Outer Models

This study uses reflective indicators. The following is an image for the outer research model:



**Figure 2. Outer Model**

Source: Software SmartPLS 3.0 (2020)

### Conducting Model Evaluation

The first step is to evaluate the outer model, which is to assess whether the prepared statements have been able to be used to measure the variables (valid) and how consistent the measuring instruments used are (reliable). It is said to be valid if the discriminant validity value is  $> 0.60$  or the average variance extracted value is  $> 0.50$  (Ghozali, 2014).

**Table 4. Validity Test**

Statement	Cross loading	AVE	Category
NB1	0.697	0.579	Valid
NB2	0.731		Valid
NB3	0.792		Valid

NB4	0.812		Valid
NB5	0.828		Valid
NB6	0.694		Valid
OR1	0.583		Invalid
OR2	0.679		Valid
OR3	0.792		Valid
OR4	0.780	0.507	Valid
OR5	0.780		Valid
OR6	0.687		Valid
OR7	0.658		Valid
PK1	0.726		Valid
PK2	0.788		Valid
PK3	0.742	0.576	Valid
PK4	0.785		Valid
PK5	0.752		Valid

Source: Research processed data, 2021

There is only one invalid statement after testing, namely the OR1 statement of the opportunity recognition variable. So the researcher omitted the statement from the research instrument. After testing the validity, the next step is to do a reliability test with the criteria for variables that are declared reliable are those that have a Cronbach alpha value and composite reliability > 0.60(Ghozali, 2014).

**Table 5. Reliability Test**

Construct	Cronbach Alpha	Composite Reliability
Entrepreneurial Intention	0.853	0.891
Opportunity Recognition	0.836	0.877
Entrepreneurship Education	0.816	0.872

Source: Research processed data, 2021

From table 5 it is known that all the values of Cronbach's alpha and composite reliability variables are above 0.70 so it can be concluded that they are reliable. The next step is to evaluate the inner structural model. The model is said to be good if the R-Square value > 0.67, moderate if R-Square > 0.33, and declared weak if R-Square > 0.19(Ghozali, 2014).

**Table 6. Evaluation of the Inner Model**

Construct	R-Square	Status
Entrepreneurial Intention	0.569	Moderate
Opportunity Recognition	0.491	Moderate

Source: Research processed data, 2021

Measuring how well the model predicts entrepreneurial intentions can be done by using the relevance of predictions (Q-square), the following is the calculation:

$$\begin{aligned}
 Q2 &= 1 - (1-R12) (1-R22) \\
 &= 1 - (1-0.491)(1-0.569) \\
 &= 0.7804 (78.04\%)
 \end{aligned}$$

### Doing Hypothesis Testing

Proof of the effect of exogenous variables on endogenous variables was carried out by statistical t test. Where is the test criteria, the hypothesis is accepted if the value of t statistic > 1.960(Ghozali, 2014). The test results can be seen below:

**Table 7. Hypothesis Testing**

<b>Construct</b>	<b>Original Sample</b>	<b>T Statistics</b>	<b>Status (&gt;1,960)</b>
PK -> NB	0.334	3,506	Significant
PK-> OR	0.771	11,426	Significant
OR-> NB	0.474	4,905	Significant

Source: Research processed data, 2021

Table 7 shows that there is a direct effect of entrepreneurship education on opportunity recognition (Hypothesis 1), entrepreneurship education on entrepreneurial intentions (Hypothesis 2), and opportunity recognition on entrepreneurial intentions (Hypothesis 3). The three research hypotheses were accepted. After conducting the Sobel test, it was concluded that opportunity recognition is a variable that mediates the relationship between entrepreneurship education and entrepreneurial intentions because the Sobel test score (4.495) > 1.960

### Discussion

Entrepreneurship education provided by the Faculty of Economics and business through two courses namely entrepreneurship and technopreneurship provides students with the ability and skills to be creative, innovative, realistic, independent, and communicative. This then makes students able to produce a product, encourages the emergence of student creativity in making products, makes students accustomed to analyzing data, dares to make their own decisions and finally communicates their business ideas to others. These abilities and skills then encourage the emergence of students' intentions to become entrepreneurs. Samydevan et al. (2015) also found similar results that entrepreneurship education provided to students in various countries was able to foster a student's desire for entrepreneurship which would then contribute to reducing unemployment.

Entrepreneurship education applied at the Faculty of Economics and Business also enables students to recognize business opportunities or have opportunity recognition abilities. The results of the study found that opportunity recognition can be increased through entrepreneurship education. Programs carried out through entrepreneurship education are able to equip students with the ability to be able to discuss so that this can then increase students to be able to see opportunities to do business.(Chang et al., 2013). Research conducted by Wei et al. (2019) also found the same result, namely entrepreneurship education will increase the ability of opportunity recognition.

Students who are equipped with entrepreneurship education will be able to see and read opportunities in doing business. Opportunity recognition is very important for students to have because the results of the study found that it was then able to increase students' intention to become entrepreneurs. In the midst of very tight business competition today, the ability to recognize business opportunities is very important to have so that later the business that will be carried out by students has the potential to develop in the future. The results of this study are in line with research conducted by RaMBE (2016).

## **4. CONCLUSION**

Entrepreneurship education can increase opportunity recognition. Then, opportunity recognition directly affects students' intentions to become entrepreneurs. Entrepreneurship education in the study was found to increase students' entrepreneurial intentions. Further

researchers are advised to add other variables that can increase entrepreneurial intentions such as the surrounding environment, self-efficacy and locus of control.

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