



Entrepreneurial Knowledge, Self-Efficacy, and The Impact of The Environment on The Entrepreneurial Interests in Electronic Engineering Department Students

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Abstract

The purpose of this study was to demonstrate the potential impact of entrepreneurial knowledge, self-efficacy, and environmental factors on entrepreneurial interest. This study uses an explanatory research approach. The population is students of Universitas Negeri Padang, Department of Electronics Engineering, using a purposive sampling technique. A sample of 80 respondents was determined using accidental sampling technique. Data was collected using questionnaires and tests. Then the method used is purposive sampling and data collection using accidental sampling. The analytical tool used is multiple linear regression analysis. The results of the study show that entrepreneurship education, entrepreneurial self-efficacy and environmental factors influence interest in entrepreneurship

A. Introduction

Entrepreneurship is a key factor for countries seeking to be competitive in knowledge-based global markets, as it is a way to foster economic growth, creativity and innovation [1]. This view has led to a growing interest in developing educational programs that foster and promote entrepreneurship [2]. This is a trigger for universities to become a place to increase understanding and interest in entrepreneurship for students [3].

Entrepreneurship is a person's attempt to create his own job either opening a business or creating something new to improve the economy for himself and for others [4]. It is because of this foundation that entrepreneurship can reduce the unemployment rate in a country [5]. Nurturing college entrepreneurship could be a substitute for lowering unemployment. Students are expected to be able to create jobs or become entrepreneurs through entrepreneurship after graduating from university [6]. The more developed a country is, the more people are educated and the more important the entrepreneurial world feels [7].

Interest in entrepreneurship is the willingness to work hard and diligently to achieve business progress, the willingness to take various risks associated with entrepreneurial activities, the willingness to explore new frontiers and paths, the willingness to live frugally, and the willingness to learn [8]. Anyone who wants to be a successful entrepreneur must have a high level of entrepreneurial motivation. Because if you have high entrepreneurial motivation, you can shape the ethos of always being great and doing everything beyond existing standards [9]. Entrepreneurial motivation is also an important factor in generating interest in entrepreneurship [10]. Previous research has also shown that motivation has a positive and significant impact on entrepreneurial interest [11]. This makes the motivational variable interesting to be investigated again to find out whether the results are still the same.

Self-efficacy has a advantageous impact on entrepreneurial interest [12]. Belief in one's own abilities can be the basis for a person's decision to do or not to do something. The relationship with entrepreneurial intent is that if you are confident, you will become more confident in becoming an entrepreneur, or even choosing not to be an entrepreneur [13].

1. Entrepreneurship Education

Entrepreneurship education is related to the formation of mindsets, attitudes, and behaviors in students to become entrepreneurs so that it directs them to choose entrepreneurship as a career choice [1]. The curriculum in higher education has courses on entrepreneurship and entrepreneurial practice as well as the many opportunities provided by the government to students to increase interest in entrepreneurship [2]. Therefore, the proposed hypothesis is:

H1 : Entrepreneurship education affects the interest in entrepreneurship.

2. Self Efficacy

Self-efficacy is a personal belief in one's ability to organize and perform the actions necessary to achieve a particular ability [14]. The entrepreneurial process is not something easy, so entrepreneurial self-efficacy is needed [4].

Entrepreneurial self-efficacy is believed to be able to drive success in business [5]. This is evidenced by the results of research showing that entrepreneurial self-efficacy has a positive effect on entrepreneurial interest. Therefore, the hypothesis proposed is:

H2 : Entrepreneurial self-efficacy affects the interest in entrepreneurship.

3. Environment

The social environment includes the form of relationships and communication interactions between humans [15]. This states that the social environment can form relationships between individuals [16]. The social environment is a place where a person interacts with each other and can adapt to form his character. Someone who is in an environment where entrepreneurial characteristics are very strong and many who become entrepreneurs will encourage and can shape someone to become an entrepreneur [11]. There is proof that the social surroundings has a nice effect on students' hobby in entrepreneurship [17]. Therefore, the hypothesis proposed is:

H3 : Environmental factors influence the interest in entrepreneurship.

Based on the above explanation, the conceptual framework of this research is as follows:

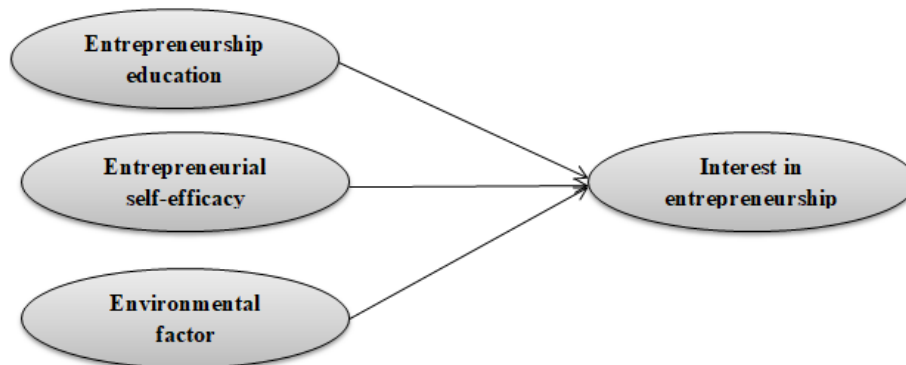


Figure 1. Research conceptual framework

B. Research Method

This research is an explanatory research that aims to clarify and define the problem more precisely. Explanatory research explains the relationship between research variables and tests hypotheses. The population of this study was taken from the students of Universitas Negeri Padang, Department of Electronic Engineering using a purposive sampling technique. The determination of the sample is based on the following criteria:

1. Students are at least in semester 5 and have taken entrepreneurship education courses
2. Students with an interest in becoming entrepreneurs, because if the respondents who were given the questionnaire did not have an interest in entrepreneurship, the research results obtained would be negative

The sample selection in this study used quota sampling, where the researchers limited the number of respondents to 40 respondents for each research object so that the total sample was 80 respondents. Sample collection or data collection was carried out by researchers using accidental sampling based on who the research objects were encountered, to then be questioned according to predetermined criteria.

The variables used in this study are independent and dependent variables. The independent variables consist of entrepreneurial education (X1), entrepreneurial self-efficacy (X2), and environmental factors (X3). Next, the dependent variable for this study is interest in entrepreneurship (Y).

The information evaluation approach used is more than one regression with the subsequent formula:

$$Y = a + b_1X_1 + b_2X_2 + b_3X_3 + e_i \quad (1)$$

Description:

a = constant number

b₁ = regression coefficient of entrepreneurship education variable

b₂ = regression coefficient of entrepreneurial self-efficacy variable

b₃ = environmental factor variable regression coefficient

X₁ = entrepreneurship education

X₂ = entrepreneurial self-efficacy

X₃ = environmental factor

e_i = disturbance factor

C. Result and Discussion

1. Data description

Table 1. Respondent demographics

No	Demographic characteristics of respondents	Total	Percentage	
1	Age	18 years	24	30%
		19 years	19	23,75%
		20 years	17	21,25%
		21 years	7	8,75%
		22 years	13	16,25%
	Total	80	100%	
2	Gender	Man	25	31,25%
		Woman	55	68,75%
	Total	80	100%	
3	Study program	Informatics Engineering Education	30	37,5%
		Electronics Engineering Education	30	37,5%
		DIV Electronic Systems Engineering Technology	20	25%
		Total	80	100%
4	Business experience	Experienced	44	55%

	Inexperienced	36	45%
	Total	80	100%

Data analysis on the respondents' descriptions revealed that 18-year-old respondents had over 30% of the maturity to drive their interest in entrepreneurship, as shown in Table 1.

The characteristics of respondents based on gender also show that women are more interested in entrepreneurship by 68.75%. Characteristics of respondents based on study program showed that the most frequent study programs were Informatics Engineering and Electronic Engineering Education study programs with 30 people with a percentage of 37.5%. Then the characteristics of the last respondent are based on their business experience, namely as many as 44 respondents have experience in entrepreneurship with a percentage of 55%. So it can be concluded that there are many students who have an interest in entrepreneurship by carrying out business activities even though their level of business is still small.

2. Hypothesis testing

The results of multiple regression analysis are shown in Table 2. Based on the analysis in Table 2, entrepreneurship education has a positive impact on entrepreneurial interest. As a result, we found that the higher the level of entrepreneurial education, the higher the interest in starting a business, and conversely, the higher the level of entrepreneurial education, the higher the interest in starting a business. Entrepreneurial self-efficacy also has a positive effect on entrepreneurial interest. In other words, the higher the self-efficacy at starting a business, the higher the interest in starting a business, and vice versa. The contribution of environmental factors to the interest in entrepreneurship also shows positive results. This means that the higher the environmental factor, the higher the level of interest in entrepreneurship.

Table 2. Linear Regression Analysis Test Results

Model	Unstandarlized Coefficients		Standarlized Coefficients		Sig.
	B	Std. Error	Beta	t	
1 (Constant)	,347	3,614		,096	,924
Entrepreneurship Education	,418	0,94	,361	4,421	,000
Entrepreneurial Self-Efficacy	,333	,033	,303	,333	,000
Environmental factor	,504	,111	,382	4,541	,000

a. Entrepreneurship Education and Interest in Entrepreneurship

The H1 test showed an influence between entrepreneurial education and entrepreneurial interest. The entrepreneurial education materials provided to students have a positive impact on their interest in entrepreneurship. Looking at the responses of the respondents, 65% agreed with the index "I have a good understanding of the entrepreneurship training course", 27.5% fully agreed,

followed by the indicator "I want to work voluntarily and passionately". 30% agreed and 66.2% agreed." is all about entrepreneurship.

If higher education provides entrepreneurial knowledge, students' interest in entrepreneurship will increase. With public lectures related to entrepreneurship and training, it can be used as a provision of skills and awaken students' talents in entrepreneurship. In addition to the characteristics of the respondents who took part in the research, teaching and learning activities on campus with the help of capable lecturers facilitated the understanding of respondents in receiving entrepreneurship courses. Lecturers also provide entrepreneurship practice activities for 2x in one semester. Thus it can be said that the perceptions of students at Padang State University regarding the understanding of entrepreneurship education material provided by lecturers have a good effect on their interest in entrepreneurship. But on the other hand, there were respondents' answers of 48.7% who answered quite agree and 23.8% answered that they did not agree on the indicators regarding campus entrepreneurship laboratories being sufficient to increase entrepreneurship. Thus it can be said that the means to develop entrepreneurial activities on campus are still lacking. So it would be better if the campus made improvements to the entrepreneurship laboratory facilities on campus.

b. Entrepreneurial Self-Efficacy and Interest in Entrepreneurship

Research results show that there is an influence between entrepreneurial self-efficacy and entrepreneurial interest, and that a student's entrepreneurial confidence has a positive effect on the student's entrepreneurial interest. The above results are corroborated by the respondents' answers by 32.5% agree and 65% strongly agree on the indicator about having a chance to succeed in the future on entrepreneurial self-efficacy, then the respondent's answers are 30% agree and 66.2% strongly agree on the indicator about wanting work diligently in the interest of entrepreneurship. Thus, it can be said that students' perception of self-efficacy as an entrepreneur has a positive impact on their interest in entrepreneurship. However, on the other hand, there were 21.2% respondents who answered quite agree, 22.5% disagreed and 2.5% strongly disagreed on the indicator regarding the ability to open a business independently. It cannot be denied that humans as social beings cannot live alone. This means that entrepreneurial self-efficacy can make someone become an entrepreneur.

c. Environmental Factors and Interest in Entrepreneurship

A study of the impact of environmental factors on entrepreneurial interest shows that encouragement from a student's environment positively affects entrepreneurial interest. Respondents' answers by 50% strongly agree and 47.5% agree and 2.5% quite agree on indicators regarding environmental factors, then respondents' answers by 30% agree and 66.2% strongly agree on indicators about wanting to work diligently in an interest in entrepreneurship. Thus, it can be said that the perception of students of the Department of Electronic Engineering regarding environmental factors has an effect on their entrepreneurial interest. This means that structural support from various sectors of society influences a person to become an entrepreneur.

D. Conclusion

Research results show that the variables entrepreneurial education, entrepreneurial self-efficacy, and environment have a significant positive impact on entrepreneurial interest. In addition, the entrepreneurship education of the Faculty of Electrical Engineering, Universitas Negeri Padang can be considered good, so that it has a big impact on the interest in entrepreneurship for students of the Department of Electronics Engineering, Universitas Negeri Padang. Likewise with entrepreneurial self-efficacy which shows that the higher the level of self-efficacy or self-confidence in entrepreneurship at the Department of Electronics Engineering, Universitas Negeri Padang, will have an impact on interest in entrepreneurship for students of the Department of Electronics Engineering, Universitas Negeri Padang.

A study of the impact of environmental factors on entrepreneurial interest shows that encouragement from a student's environment positively affects entrepreneurial interest. Environmental variables are very important and need to be further improved to encourage students' interest in entrepreneurship. The environment is related to the support of peers and the existence of role models for young entrepreneurs who can be used as examples for students to start entrepreneurship.

Future research is expected to also consider independent variables as testing material, for example personality and motivation variables. For the campus, it is better to increase understanding and training for students so that students' interest in entrepreneurship increases. For students it would be nice to change the mindset that always wants to find a job to become a job creator.

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