The Effect of Self-Efficacy, Adversity Quotient, and Locus of Control on Entrepreneurial Intentions
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Abstract

The purpose of this study was to determine the effect of self-efficacy, adversity quotient and locus of control on entrepreneurial intentions. The design used in this study was conclusive and the type of research used is causal research. The population of this study was the students of 2016 class of Management Department of Universitas Negeri Surabaya who have taken entrepreneurship courses. The analysis technique used was multiple linear regression analysis. The result shows that self-efficacy does not have a significant effect on entrepreneurial intentions, while the adversity quotient and locus of control have a positive and significant influence on entrepreneurial intentions.

Keywords: Self-efficacy, adversity quotient, locus of control, entrepreneurial intentions.

INTRODUCTION

Business development is part of the driving force in sustainable economic development in Indonesia. Besides accelerating the pace of equitable economic growth in order to increase people's incomes, business activities also provide employment and business opportunities for the workforce [1]. Data from the Central Statistics Agency (Badan Pusat Statistik/BPS) shows the presentation of the Open Unemployment Rate (OUR/TPT) for university graduates in the period of August 2017 were 11.32 million people or 9.35% for bachelor's degree. While diploma graduates contributed an unemployment rate of 3.27 million people or 2.71%. The data indicates a disparity between the number of college graduates available and the labor needs.

Based on these conditions, community empowerment and educated groups through entrepreneurship programs are expected to be able to give better contribution in reducing unemployment. Entrepreneurship can stimulate economic growth, innovation, work, and business creation [2,3]. Chimucheka [4] states that one of the factors driving the growth of entrepreneurship in a country lies in the role of tertiary institutions through the implementation of entrepreneurship education. However, in reality there are not many college graduates are oriented to open employment opportunities.

This has become a challenge for academics to motivate students to have interest and courage to create jobs. The theory of planned behavior (TPB) proposed by Icek Ajzen in Astri and Latifah [5] is one of the proven models that can be used in assessing interest in entrepreneurship. Lack of student interest in entrepreneurship suspected to be caused by personal factors which in this case is associated with the level of self-efficacy of students that are not optimal. Self-efficacy is the level of confidence in working on a particular task or job properly [6]. Students' confidence in their ability to become entrepreneurs tends to be low because they feel that their knowledge and ability to deal with working conditions as entrepreneurs is still lacking.

The next cause is a lack of resilience and courage in facing business risks, which showing a low level of student adversity quotient. Adversity quotient is the ability to think, manage, and direct actions that form patterns of cognitive response and behavior on stimulus events in life in the form of challenges or difficulties [6]. Stoltz [7] in Palupi [8] argues that among the many strengths possessed by an individual, one of them is how far individuals are able to survive in the face of difficulties and the ability to overcome them. An individual can be said to have a greater adversity quotient if the individual is able to face existing obstacles and make it as an opportunity to get better results.
Besides the factor of self-efficacy and adversity quotient, interest in entrepreneurship is also influenced by other psychological characters, namely locus of control. Locus of control is the level at which individuals believe that they are determinants of their own destiny [9, 10]. This theory explains to what extent an individual believes that he is in control of his own destiny. Students must have a strong locus of control to increase entrepreneurial interest.

Firmansyah et al. [3] research states that there is a positive and significant relationship between self-efficacy and entrepreneurial intention. This is supported by the results of Handaru et al. [6] which states that self-efficacy has a positive and significant effect on entrepreneurial intentions. Astri and Latifah's research [11] showed a positive and significant effect of self-efficacy on the interest of student entrepreneurship. The higher the self-efficacy of students, the higher the interest in student entrepreneurship. Ayodele [1], who examined the intentions of Nigerian teenage entrepreneurs found that adolescent self-efficacy had a positive effect on entrepreneurial intentions. Research by Nursito and Nugroho [12] shows that self-efficacy has a positive and significant effect on entrepreneurial intentions. In the study of Byabashaija et al. [13], it was found that self-efficacy had a positive effect on entrepreneurial intentions.

Indarti and Rostiani [14] conducted a research about comparative study between Indonesia, Japan, and Norway. The study found that self-efficacy proved to have a positive effect on entrepreneurial intentions of Indonesian and Norwegian students. This study also found conflicting results, namely, self-efficacy had no significant effect in the context of Japanese students.

Wijaya [15] found a positive correlation between Adversity Intelligence and student entrepreneurial intentions, indicating that the higher the Adversity Intelligence of students, the higher the interest in student entrepreneurship, while the lower the Adversity Intelligence of students, the lower the interest in student entrepreneurship. The results of Handaru et al. [6] stated that Adversity Quotient has a positive and significant influence on entrepreneurial intentions. The results of the Hapsari [5] study state that Adversity Quotient and Self-efficacy simultaneously have a very significant correlation with entrepreneurial intentions. Astri and Latifah's research [11] states that there is a positive and significant influence of Adversity Quotient on the interest of student entrepreneurship.

The Shohib [16] study concluded that Adversity Quotient had a positive and significant effect on the interest of student entrepreneurship. While in the Palupi study [8], it was concluded that control is the only dimension of Adversity Quotient which had a positive and significant influence on student entrepreneurship interests [11].

Hermawan et al. [17] research state that there is a positive and significant relationship between locus of control and entrepreneurial interest. This is supported by the results of the research of Adnyana and Purnami [3] which states that locus of control has a positive and significant effect on entrepreneurial intentions. This shows that the higher the locus of control, the entrepreneurial intention will also increase.

Research by Dinis et al. [18], suggested that locus of control had a positive effect on the intention of high school students’ entrepreneurship. Supported by Ayodele's research [1] which found that locus of control had a positive effect on entrepreneurial intentions. The study of Uddin and Bose [19] also found a positive influence of locus of control on entrepreneurial intentions. Different from Bustan's [10] study, which found that the locus of control variable did not affect the intention of Politeknik Negeri Sriwijaya students to become entrepreneurs.

Based on the background and urgency of the research presented, the following hypotheses are formulated:

H1: Self-efficacy has a positive effect on students’ entrepreneurial intentions in the Management Department Universitas Negeri Surabaya.

H2: Locus of control has a positive effect on students’ entrepreneurial intentions in the Management Department Universitas Negeri Surabaya.

H3: Adversity Quotient has a positive effect on students’ entrepreneurial intentions in the Management Department Universitas Negeri Surabaya.

H4: Self-efficacy, adversity quotient, and locus of control simultaneously influence students’ entrepreneurial intentions in the Management Department Universitas Negeri Surabaya.

**RESEARCH METHODS**

According to Maholtra [20], research designs are broadly differentiated into explorative and conclusive. The design used in this study is conclusive research. Conclusive research is research designed to help decision makers in determining, evaluating, and choosing a series of actions to be taken in certain situations. The purpose of conclusive research is to test specific hypotheses as well as specific correlations.

The type of research used in this study is causal research, because causal research is used to obtain evidence of a causal relationship [9]. This is in accordance with the research conducted to determine the effect of three independent variables namely self-efficacy, locus of control, and adversity quotient on the dependent variable which is entrepreneurial intentions.

Primary data comes from respondents’ answers (students in the Management Department, Universitas Negeri Surabaya) regarding statements relating to self-
efficacy, locus of control, adversity quotient, and entrepreneurial intentions. Population is a generalization area consisting of: objects/subjects that have certain qualities and characteristics set by researchers to be studied so that conclusions can be drawn [21]. The population used in this study is Management Department students in Faculty of Economics Universitas Negeri Surabaya who have taken entrepreneurship courses, more specifically are class of 2016 students, amounting to 150 people. The sampling technique used is simple random sampling. The number of samples was set at 109 people taking the number of samples using the Slovin formula [9].

Self-efficacy (X1)
According to Bandura [22] the notion of self-efficacy is an individual's belief in his ability to carry out tasks or perform an action needed to achieve a certain outcome. Based on the research of Mc Gee et al. [21], self-efficacy is measured by three dimensions which consist of searching dimensions, planning dimensions, and marshaling dimensions. The searching dimension is related to the search for new ideas about the product or service that will be produced. Planning dimensions is related to the ability to plan a business to be executed (the ability to calculate consumer demand for the product to be produced, provide competitive prices, and calculate the funds that will be needed and marketing capabilities). The marshaling dimension is related to trust in the prescribed vision and plan, the formation of a network, and the ability to explain business ideas.

Locus of control (X2)
Locus of control is the level of confidence of individuals who believe that events, fate, and destiny are caused by their own control, so that the person will use his ability to face difficulties and challenges in any case. Locus of control is measured using a modified version of Rotter's [23] I-E scale which is also used by Mueller and Thomas [24]. This I-E scale consists of 10 items that are used to measure locus of control. In this study, 4 items from the 10 statement items were taken as used by Mueller and Thomas [24]. This instrument is designed to measure respondents' beliefs about their ability to control external pressure. Previous research shows that the locus of control instrument is reliable and valid [25].

Adversity quotient (X3)
Adversity Quotient is self-resilience and the ability to turn obstacles into an opportunity to achieve goals. Adversity quotient measurements are based on the opinion of Stoltz [7] which states that each individual reacts and faces difficulties in different ways. In other words, each individual has different adversity quotient.

Using constructs from Stoltz about Adversity Quotient (AQ) in providing clarity to investors, Markman, Baron, and Balkin [26], show two findings. First, significantly successful investors have higher AQ scores than investors who are less successful. Second, investors who provide clarity in starting a new business significantly have a higher and more calculated level of difficulty control in relation to future results compared to investors who do not use clarity in starting a new business.

Entrepreneurial intentions (Y)
Entrepreneurial intentions are desires, interests, and willingness of individuals through ideas that are owned, to work hard or be strong-willed to fulfill their needs without fear of risks that may occur, accept challenges, be confident, creative, and innovative, also have the ability and skills to fulfill the needs by establishing a business. Variable entrepreneurial intentions are measured by two statement items, namely (1) I am interested in becoming an entrepreneur, (2) I might become an entrepreneur [23,27,28].

RESULTS AND DISCUSSIONS
Reliability of Data Analysis
Validity test
Based on table 1, all statement items have the number of Pearson correlation or r count > r table (0.1882) and are positive. So it can be concluded that all items submitted are declared valid and can be used as measurement data in the study.

Reliability Test
Questionnaires are considered reliable if the respondent's response to the statement is consistent from time to time. A construct questionnaire is declared reliable if it gives an Alpha Cronbach value > 0.06.
The table above shows the Cronbach’s alpha value in each variable in the study is > 0.06, so that all statement items for each variable are declared reliable and can be used as measurement data in the study.

Inferential Statistical Analysis

Classical Assumption Test

Normality Test

Normality tests can be done with Kolmogorov-Smirnov. See Table 3. Based on the results of the below tests, it can be concluded that the residual data in this study are normally distributed with the value of Asymp. Sig. (2-tailed) 0.434 > 0.05 significance level.
Multicollinearity Test

Table 4 shows that all independent variables have a Tolerance value ≥ 0.10, and a VIF value ≤ 10. The independent variable in this research regression model does not have a strong correlation between variables which can result in unstable test results. So there is no multicollinearity.

Heteroscedasticity Test

Heteroscedasticity can be done using the Park test. The Park test results in Table 5 show that the probability of sig. for all independent variables are > 0.05, so that the independent variables in this study did not experience heteroscedasticity.
Table-5: Park Test

<table>
<thead>
<tr>
<th>Model</th>
<th>Unstandardized Coefficients</th>
<th>Standardized Coefficients</th>
<th>t</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>(Constant)</td>
<td>1.000</td>
<td>2.207</td>
<td>-406</td>
</tr>
<tr>
<td></td>
<td>LnX1</td>
<td>-.364</td>
<td>2.407</td>
<td>-.021</td>
</tr>
<tr>
<td></td>
<td>LnX2</td>
<td>-.123</td>
<td>1.726</td>
<td>-.008</td>
</tr>
<tr>
<td></td>
<td>LnX3</td>
<td>-.133</td>
<td>1.545</td>
<td>-.162</td>
</tr>
</tbody>
</table>

a. Dependent Variable: LnY2

Source: SPSS Version 20 Output

Multiple Linear Regression Analysis

Determination Coefficient Test (R2)

Table 6 shows that the R2 value is 0.349. This value indicates that the variables X1 (Self-efficacy), X2 (Locus of Control), and X3 (Adversity Quotient) are able to explain Y (Entrepreneurial Intentions) by 34.9%, while the remaining 65.1% is explained by other variables. Meanwhile, the R correlation coefficient value is 0.591 describing the relationship of the independent variable with the dependent variable 59.1% so that this value is able to indicate that the independent variable is able to represent the information needed in predicting the dependent variable.

Table-6: Correlation Coefficient and Determination Coefficient

<table>
<thead>
<tr>
<th>Model</th>
<th>R</th>
<th>R Square</th>
<th>Adjusted R Square</th>
<th>Std. Error of the Estimate</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>.591*</td>
<td>.349</td>
<td>.330</td>
<td>.58428</td>
</tr>
</tbody>
</table>

a. Predictors: (Constant), X3, X2, X1

Source: SPSS Version 20 Output

Model Feasibility Test (Test F)

The results of the F test show that the calculated F value is 18.762 with a significance value or probability of 0.000 (less than 0.05). See Table 7. This shows that the variables X1 (Self-efficacy), X2 (Locus of Control), and X3 (Adversity quotient) simultaneously or together have an effect on the Y variable (Entrepreneurial Intentions).

Table-7: F Test Results

<table>
<thead>
<tr>
<th>Model</th>
<th>Sum of Squares</th>
<th>df</th>
<th>Mean Square</th>
<th>F</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Regression</td>
<td>19.215</td>
<td>3</td>
<td>6.405</td>
<td>18.762</td>
</tr>
<tr>
<td></td>
<td>Residual</td>
<td>35.845</td>
<td>105</td>
<td>.341</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>55.060</td>
<td>108</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

a. Dependent Variable: Y
b. Predictors: (Constant), X3, X2, X1

Source: SPSS Version 20 Output

Parameter Significance Test (t Test)

The t test results show that the variable X1 (Self-efficacy) has a regression coefficient of -0.28 with a value of t count of -0.127 and a probability or significance value of 0.899 (greater than α = 0.05). This means that H0 is rejected or H1 is accepted, which interpret that the independent variable X1 (Self-efficacy) does not have a significant effect on the dependent variable Y (Entrepreneurial Intentions).

Variable X2 (Locus of Control) has a regression coefficient of 0.376 with a t count value of 2.625 and a probability or significance value of 0.010 (smaller than α = 0.05). This means that H0 is rejected or H1 is accepted, which interpret that the independent variable X2 (Locus of Control) has a positive and significant influence on the dependent variable Y (Entrepreneurial Intentions).
The X3 variable (Adversity quotient) has a regression coefficient value of 0.588 with a t count value of 4.200 and a probability or significance value of 0.000 (smaller than $\alpha = 0.05$). This means that $H_0$ is rejected or $H_A$ is accepted, which interpret that the independent variable X3 (Adversity quotient) has a positive and significant influence on the dependent variable Y (Entrepreneurial Intentions).

### Table-8: t Test Results

<table>
<thead>
<tr>
<th>Model</th>
<th>Unstandardized Coefficients</th>
<th>Standardized Coefficients</th>
<th>t</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>B</td>
<td>Std. Error</td>
<td>Beta</td>
<td></td>
</tr>
<tr>
<td>(Constant)</td>
<td>.631</td>
<td>.566</td>
<td>1.077</td>
<td>.284</td>
</tr>
<tr>
<td>X1</td>
<td>-.028</td>
<td>.221</td>
<td>-.014</td>
<td>.127</td>
</tr>
<tr>
<td>X2</td>
<td>.376</td>
<td>.143</td>
<td>.254</td>
<td>2.625</td>
</tr>
<tr>
<td>X3</td>
<td>.588</td>
<td>.140</td>
<td>.440</td>
<td>4.200</td>
</tr>
</tbody>
</table>

a. Dependent Variable: Y

### DISCUSSION

The Multiple Determination Coefficient (R2) is 0.349, which means that all independent variables, namely X1 (Self-efficacy), X2 (Locus of Control), and X3 (Adversity quotient) have a contribution of 34.9% to the rise and fall of Y (Entrepreneurial Intentions). While the remaining 65.1% is caused by other factors outside the model.

**Effect of Self-efficacy on Entrepreneurial Intentions**

The t-test results show that the value of t count for X1 (Self-efficacy) is -0.127 with a probability or significance value of 0.899 (greater than $\alpha = 0.05$). This means that $H_0$ is rejected or $H_A$ is accepted which interpret that the independent variable X1 (Self-efficacy) does not have a significant effect on the dependent variable Y (Entrepreneurial Intentions).

The results of this study prove that the higher the confidence possessed by students about their ability to carry out tasks or perform an action in achieving a certain outcome is not able to increase entrepreneurial intentions. Even though the average Self-efficacy variable is 3.58 and Entrepreneurial Intentions are 4.20 which indicates that the values are both high, but in this study the Self-efficacy does not affect Entrepreneurial Intentions.

The results of this study support Research Indarti and Rostiani [14] who found results that self-efficacy did not significantly influence entrepreneurial intentions in the context of Japanese students. The results of this study are different from Nursito and Nugroho [12], Firmansyah et al. [3], Handaru et al. [6], Astri and Latifah [11], Ayodele [1], Nugroho [12], and Byabashaija et al. [13] which states that self-efficacy has a positive and significant effect on entrepreneurial intentions. The results of this study are not in accordance with the theory revealed by Cromie [29] which explains that self-efficacy influences a person's belief in the achievement of targeted goals. The higher a student's confidence in his ability, the greater his desire to become an entrepreneur.

**Effect of Locus of Control on Entrepreneurial Intentions**

The t-test results show that the value of t count for X2 (Locus of Control) is 2.625 with a probability or significance value of 0.010 (smaller than $\alpha = 0.05$). This means that $H_0$ is rejected or $H_A$ is accepted which interpret that the independent variable X2 (Locus of Control) has a positive and significant influence on the dependent variable Y (Entrepreneurial Intentions).

The results of this study prove that if students have confidence that events, fate, and destiny are caused by self-control, it will increase student entrepreneurial intentions. The average value of Locus of Control variables is 4.04 and Entrepreneurial Intentions are 4.20, both are high and between the two variables there is a positive correlation.

The results of this study support the research conducted by Dinis et al. [18]. This study revealed that locus of control had a positive and significant effect on entrepreneurial intentions of high school students. Hisrich et al. [14] states that some individual characteristics such as locus of control have an important role to the intentions and success of a business entity. The results of this study are in line with previous studies conducted by Hermawan et al. [17], Adnyana and Purnami [30], Uddin and Bose [19], and Ayodele [1], who also found a positive influence of locus of control on entrepreneurial intentions.

**Effect of Adversity Quotient on Entrepreneurial Intentions**

The t-test results show that the value of t count for X3 (Adversity quotient) is 4.200 with a probability or significance value of 0.000 (smaller than $\alpha = 0.05$). This means that $H_0$ is rejected or $H_A$ is accepted, which interpret that the independent variable X3 (Adversity quotient) has a positive and significant influence on the dependent variable Y (Entrepreneurial Intentions).
intelligence in managing resources and to take certain actions will increase the student's interest in entrepreneurship. The average value of the Adversity Quotient variable is 3.65 and Entrepreneurial Intentions are 4.20, both of which are high and between the two variables there is a positive correlation.

The results of this study prove that the higher the students’ ability to respond to obstacles and difficulties through their intelligence in managing resources and to take certain actions will increase the student's interest in entrepreneurship. The average value of the Adversity Quotient variable is 3.65 and Entrepreneurial Intentions are 4.20, both of which are high and between the two variables there is a positive correlation.

The results of this study prove that the higher the students’ ability to respond to obstacles and difficulties through their intelligence in managing resources and taking certain actions, the higher student's interest in entrepreneurship.

Suggestion
The Management Department of Universitas Negeri Surabaya must encourage more graduates to become entrepreneurs. This is in accordance with one of the visions of the Management Department of Universitas Negeri Surabaya, which is to produce entrepreneurship. To increase students' interest in entrepreneurship, efforts need to be made to improve Locus of Control and Adversity Quotient from students. The learning process of entrepreneurship courses must be carried out with the main goal of increasing Locus of Control and Adversity Quotient in order to increase student interest in entrepreneurship.

For the future research, it should be considered to examine other factors outside of self-efficacy, locus of control, and adversity quotient to find out the intention of entrepreneurship, because there are still many other factors that can influence entrepreneurial intentions such as family background, motivation, and courage to take risk.

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