Role of Entrepreneurship Education and Family Environment on Entrepreneurial Skills of Vocational Business Students

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Abstract: This research is motivated by the phenomenon of high interest in business vocational students wanting to become entrepreneurs. Related to this study's objective is to examine and gather empirical information on the relationship between college students' Entrepreneurship Education and Family Environment at Vocational Business. Business Administration Department students in semesters 2, 4, and 6 participated in this study as respondents at Politeknik Negeri Nunukan. In this case study, 54 Business Administration students were selected as a sample. Based on the purposive sampling technique, Multiple linear regression analysis approaches are used to test the hypothesis in this case study. The findings indicated that Entrepreneurship Education and Family Environment all had an impact on Entrepreneurial Skills. This research demonstrates that Entrepreneurial Skills is simultaneously influenced by Entrepreneurship Education and Family Environment.

Keywords: Entrepreneurship Education, Family Environment, Entrepreneurial Skills, Vocational

INTRODUCTION

Education is one of the main pillars in the development of a nation. In the current competitive era, education must be able to answer the needs of industry and society, especially higher education. Higher education plays a very important role in increasing the motivation to become someone with an entrepreneurial spirit at a young age, which is really needed in improving the entrepreneurial spirit in Indonesia especially. By increasing the number of entrepreneurs from graduate circles, it will be possible to minimize the level of unemployed people and this will even increase new job opportunities. (Dzulfikri & Kusworo, 2017).

Entrepreneur is one part of the backbone of the economy in every country, especially developing countries. This research is motivated by the phenomenon of high interest in business vocational students wanting to become entrepreneurs. One way to overcome unemployment in Indonesia is to foster an entrepreneurial spirit among young people. It is hoped that this will be able to overcome unemployment in Indonesia. If the entrepreneurial spirit grows in teenagers, it is hoped that this will create a desire in the
individual to be more independent to get a better life without having to depend on other people (Achmad, 2016).

The phenomenon of lack of interest in entrepreneurship among students also occurs in the Nunukan State Polytechnic at Business Administration Department. The Entrepreneurship course in the PNN Business Administration Department has been included in the educational curriculum and it is absolutely mandatory for every student to take this course. The Entrepreneurship course in the Department of Business Administration is taken in semester 5, both theory and practice of entrepreneurship carried out in the field. The entrepreneurship education courses given in the 5th semester provide training to prepare for the practice of going directly into the field if students want to become entrepreneurs when they graduate. In this entrepreneurial practice, students are required to be able to plan and create a product which will later be distributed to many people. This is where the teaching staff will see whether students have been able to appreciate their entrepreneurial learning so far in the field and can be enjoyed by consumers.

Research conducted by Lestari and Wijaya (2012) at a university shows that entrepreneurial career choices can be realized with entrepreneurship education which helps students have an entrepreneurial mindset, attitude and behavior. A research in the context of a longitudinal study conducted by Varela and Jimenez (2001) also shows that the highest level of entrepreneurship is obtained by universities that invest in entrepreneurship education for their students compared to universities that do not. Entrepreneurship education itself has debates in its definition. According to Fayolle et al (2006), entrepreneurship education is an educational process to prepare entrepreneurial skills and attitudes with efforts to develop superior personal qualities. Fayolle et al (2006) also added that entrepreneurship education, especially at the primary and secondary education levels, does not have to focus on creating new businesses and fulfilling the qualifications to become an entrepreneur without having to become an entrepreneur. However, in the context of Isaacs et al (2007), entrepreneurship education is more linked to the role of a business in utilizing resources to provide maximum benefit to the community.

Another factor that can influence students' interest in entrepreneurship is the family environment. The role of the family is very important in supporting a person's
entrepreneurial tendencies. The support provided by the family can be in the form of moral support, be it opportunities, trust, giving ideas or providing capital or material support from parents for someone to be able to start their business, or the location or place where the business is run. A conducive family environment will also encourage and convince an individual's intention to pursue entrepreneurship (Marini & Hamidah, 2014). Obstacles in starting an entrepreneur can occur if the family environment is not conducive and does not provide full support, but instead provides prohibitions or disapproval from parents. Without full support from the family, a person will find it difficult or even unable to get the help they need through the presence of their family (Ratumbuysang & Rasyid, 2015). According to Kusmulyono (2017), the role of schools that must be implemented in entrepreneurship education includes: 1) Curriculum. 2) Teacher. 3) The Role of Schools. And the role of the family that must be considered in supporting entrepreneurship education includes: 1) Attention from parents. 2) Good family norms. 3) Motivation for success from the family. 4) Communication & Harmony.

Meanwhile, according to Zimmerer in Suryana (2006: 14) Entrepreneurship is the application of creativity and innovation to solve problems and take advantage of the opportunities faced. Creativity is defined as the ability to develop ideas and find new ways of solving problems, while innovation is defined as the ability to apply creativity to solve problems and opportunities to increase the richness of life.

Creative and innovative entrepreneurial abilities can be used as a basis, tips and resources for seeking opportunities for success (Suryana, 2006: 2). Opportunities for success in the future can be achieved if an entrepreneur really makes good use of opportunities and has self-discipline. Meanwhile, according to Zimmerer in Suryana (2006: 14) Entrepreneurship is the application of creativity and innovation to solve problems and take advantage of the opportunities faced. Creativity is defined as the ability to develop ideas and find new ways of solving problems, while innovation is defined as the ability to apply creativity to solve problems and opportunities to increase the richness of life.

According to Suryana (2006: 5), the skills that entrepreneurs must have include: 1) Conceptual skills in managing strategies and calculating risks. 2) Creative skills in creating added value. 3) Skills in leading and managing. 4) Communication and interaction skills. 5) Technical skills for the business to be carried out. Therefore, this
research was carried out. To find out the role of Entrepreneurship Education and Family Environment in encouraging Entrepreneurial Skills from students at the vocational higher education level in the Department of Business Administration at the Nunukan State Polytechnic

**METHOD**

The location of this research was carried out on vocational higher education institution, enrolled at Province Kalimantan Utara. This research was carried out for six months, starting in Mei and ending in November 2023. To clarify how entrepreneurship education and family environment influence entrepreneurial skills, we adopted a form of quantitative approach in this study. Active college students enrolled in the Business Administration study program chosen become the population of this survey at Politeknik Negeri Nunukan. In this study, the samples were students in totaling 54 respondents, assuming they received entrepreneurship education through vocational higher education as well as courses and also supportive family environment. The method used by researchers in selecting research samples is purposive sampling technique. In this study, researchers obtained and used an instrument in the form of a research questionnaire. Primary data collection in this study was done by distributing questionnaires via Google Form to active students taking the Business Administration study program. Secondary data collection in this study is to collect data from literature, books, and open journal. This study makes use of a Likert scale as its measurement system. The measuring scale itself is a contract used to produce quantitative data through measurement. The Likert scale is a tool for measuring attitudes, opinions, and perceptions of social phenomena in an individual or in a group of individuals. Likert scale with alternate responses customized for each questionnere (Sugiyono, 2016; Sunyoto, 2017). Before the data is exposed to quantitative data analysis, a sort of study that uses numbers and calculations using statistical approaches, the data must be divided into certain categories using specific tables. Multiple regression analysis was utilized by the author to examine the data.

**RESULTS AND DISCUSSION**

**Research Instrument Tests**

Based on gender, as many as 23 or 42,59% of respondents consisted of men, and as many as 31 or 57,40% of respondents consisted of women. Based on semester level shows
that 15 or 22.77% consist of respondents who are in semester 2, then 15 or 22.77% consist of respondents who are in semester 4, and as many as 24 or 44.44% consist of respondents who are in semester 6. Student that already have never run a business; 34, or 62.96%, and 20, or 37.03%, are the number of respondents who are currently running a business. Based on the data above, data members are dominated by women because student in business administration department are also dominated by women.

Considering the validity test findings for variable X1 (entrepreneurship education), it was declared valid for all questions. This is the basis for the use of questions in the research, with as many as nine items to represent the variables of entrepreneurship education. Meanwhile, considering the results of the reliability test, which are equal to 0.846, it is declared reliable because it meets the criteria of > 0.6.

Meanwhile, the results of the validity test for variable X2 (family environment) were stated to be valid for all questions. This is the basis for the use of questions in the research, with as many as eight items to represent the variables of family environment. However, considering the results of the reliability test, which are equal to 0.907, it is declared reliable because it meets the criteria of > 0.6.

The results of the validity test for variable Y (Entrepreneurial Skill) are declared valid for 15 questions. Considering the results of the reliability test, it is equal to 0.824 declared variable as reliable because it meets the criteria of > 0.6.

**Classic Assumption Test**

**Multicollinearity Test**

<table>
<thead>
<tr>
<th>Coefficients</th>
<th>Model</th>
<th>Collinearity Statistics</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Tolerance</td>
<td>VIF</td>
</tr>
<tr>
<td>1 (Constant)</td>
<td></td>
<td>.872</td>
<td>1.146</td>
</tr>
<tr>
<td>Family Environment</td>
<td></td>
<td>.872</td>
<td>1.146</td>
</tr>
<tr>
<td>Entrepreneurship Education</td>
<td></td>
<td>.872</td>
<td>1.146</td>
</tr>
</tbody>
</table>

A good regression model should have no correlation between independent variables. If it is proven that there is multicollinearity, one of the existing independents should be removed from the model, then the regression model creation should be repeated (Saragih Santoso, 2012)
Based on the table above, the multicollinearity test is determined by a Tolerance value >0.10 or a VIF value <10, so multicollinearity does not occur. It can be concluded that all variables have passed the multicollinearity test with the explanation that all the variable there is no multicollinearity because the Tolerance value is greater than 0.10 and the VIF value is smaller than 10.

**Heteroscedasticity Test**

![Scatterplot](image)

**Figure 1. Heteroscedasticity Test**

Testing in this research uses a graph plot between the predicted value of the dependent variable, namely ZPRED, and the residual SRESID. Heteroscedasticity does not occur if there is no clear pattern, and the points are spread above and below the number 0 on the Y axis (Imam Ghozali, 2011: 139-143). From the image above it can be concluded that the dots are spread out and do not form a clear pattern. So that heteroscedasticity does not occur.

**Table 2. Heteroscedasticity Test**

<table>
<thead>
<tr>
<th>Coefficients&lt;sup&gt;a&lt;/sup&gt;</th>
</tr>
</thead>
<tbody>
<tr>
<td>Model</td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td>(Constant)</td>
</tr>
<tr>
<td>Entrepreneurship Education</td>
</tr>
<tr>
<td>Family Environment</td>
</tr>
</tbody>
</table>

<sup>a</sup> Dependent Variable: Entrepreneurial Skills
Based on figure above, the points in the figure above are assumed to be far from each other, so the data does not experience heteroscedasticity. Using another theory by Glaiser's shows that the significance value of the Spearman Rho correlation of all independent variables is > 0.05. So it can be concluded from this that heteroscedasticity does not occur.

Normality Test

![Normal P-P Plot of Regression Standardized Residual](image)

**Figure 2.** Normality Test

<table>
<thead>
<tr>
<th>Table 3. Normality Test</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>One-Sample Kolmogorov-Smirnov Test</strong></td>
</tr>
<tr>
<td>N</td>
</tr>
<tr>
<td>Normal Parameters(^{a,b})</td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td>Most Extreme Differences</td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td>Test Statistic</td>
</tr>
<tr>
<td>Asymp. Sig. (2-tailed)(^{c})</td>
</tr>
<tr>
<td>Monte Carlo Sig. (2-tailed)(^{d})</td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td></td>
</tr>
</tbody>
</table>

a. Test distribution is Normal.
b. Calculated from data.
c. Lilliefors Significance Correction.
d. Lilliefors' method based on 10000 Monte Carlo samples with starting seed 1993510611.
The normality test is used to test whether the residual values resulting from the regression are normally distributed or not. A good regression model is one that has residual values that are normally distributed. Based on the Kolmogorov – Smirnov normality test, a significant value of 0.073 is greater than 0.050, so it can be concluded that the data is normally distributed.

**Multiple Regression Analysis**

**Table 4. Multiple Regression Analysis**

<table>
<thead>
<tr>
<th>Model</th>
<th>Unstandardized Coefficients</th>
<th>Standardized Coefficients</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>B</td>
</tr>
<tr>
<td>1 (Constant)</td>
<td></td>
<td>34.208</td>
</tr>
<tr>
<td>Entrepreneurship Education</td>
<td></td>
<td>0.529</td>
</tr>
<tr>
<td>Family Environment</td>
<td></td>
<td>0.323</td>
</tr>
</tbody>
</table>

*a. Dependent Variable: Entrepreneurial Skills*

**F Test**

**Table 5. F Test**

<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 Regression</td>
<td>1066.090</td>
<td>2</td>
<td>533.045</td>
<td>77.361</td>
<td>&lt;.001*</td>
</tr>
<tr>
<td>Residual</td>
<td>351.410</td>
<td>51</td>
<td>6.890</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>1417.500</td>
<td>53</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*a. Dependent Variable: Entrepreneurial Skills*

*b. Predictors: (Constant), Family Environment, Entrepreneurship Education*

The results of the F test below obtained a significance value of 0.01 or <0.05, so it can be concluded that H0 is rejected and H1 is accepted, meaning that all independent variables (Entrepreneurship Education and Family Environment) together have a significant influence on dependent variable (Entrepreneurial Skills) this is also supported by looking at the results of F Calculation 77.361 > F Table 3.178.

**Test – t (Partial Test)**

**Table 6. Test-t (Partial 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></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Role of Entrepreneurship Education and Family Environment ...
The "Coefficients" table provides information about the regression equation and whether there is an influence of the Entrepreneurship Education and Family Environment variables partially (individually) on Entrepreneurial Skills. To determine whether there is an influence of the Entrepreneurship Education and Family Environment variables, the significance value (Sig.) is less than the alpha value = 0.05, which has all been met. Apart from that, the partial (individual) influence can be proven from the calculated t value, based on the table above, the output is provided that:

a. The calculated t value of the Entrepreneurship Education variable is 9.053 (greater than the t table value = 2.00), so H1 or the first hypothesis is accepted, which means that Entrepreneurship Education has a significant effect on Entrepreneurial Skills.

b. The calculated t value of the Family Environment variable is 4.734 (greater than the t table value = 2.00), so H2 or the second hypothesis is accepted, which means that Family Environment has a significant effect on Entrepreneurial Skills.

Coefficient of Multiple Determination (R²)

<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>.867a</td>
<td>.752</td>
<td>.742</td>
<td>2.62496</td>
</tr>
</tbody>
</table>

a. Predictors: (Constant), Family Environment, Entrepreneurship Education

b. Dependent Variable: Entrepreneurial Skills

R Square 0.752 means that the Entrepreneurship Education and Family Environment variables have an influence of 75.2% on the Entrepreneurial Skills variable. Based on the table above, it can also be interpreted that, there is a simultaneous influence of Entrepreneurship Education and Family Environment of 75.2% on Entrepreneurial Skills and the remaining 24.8% is influenced by other factors not examined in this research.
Discussion

1. Entrepreneurship Education:
   - **Entrepreneurship as a Learning Skill:**
     This theory emphasizes that entrepreneurship can be taught and learned through entrepreneurship education. This process involves developing the skills, knowledge, and attitudes necessary to become a successful entrepreneur (Kusumojanto et al., 2021).
   - **Entrepreneurship Development Model:**
     This concept views entrepreneurship education as a development model that involves a series of stages from understanding the basic concepts of entrepreneurship to practical application in a business context (Jena, 2020).

2. Family Environment:
   - **Family Social Theory:**
     This theory emphasizes that the family plays an important role in shaping a person's values, norms, and attitudes. In this context, the family can be the main agent in shaping interest and support for entrepreneurship (Lee et al., 2021).
   - **Family Behavior Model:**
     This concept refers to the influence of the family on the formation of entrepreneurial behavior and attitude. A supportive family environment that facilitates the development of entrepreneurial skills can contribute positively (Sahputri et al., 2023).

3. Integration of Education and Family Environment:
   - **Interaction Model:**
     This theory highlights the importance of integration between entrepreneurship education and the family environment. In an ideal situation, the two work synergistically to develop students' entrepreneurial skills (Barba-Sánchez & Atienza-Sahuquillo, 2018).
   - **Shared Influence:**
     This concept reflects the recognition that education and family can have a shared impact on the development of entrepreneurial skills. The combination of support from these two sources can create optimal conditions for entrepreneurial development (Akinwale & Akinwale, 2019a).
4. Contextual Approach:
   - **Contextual Theory:**
     This concept highlights the importance of understanding the social, economic, and cultural context in understanding how entrepreneurial education and the family environment interact. This context can influence how individuals interpret and respond to entrepreneurial opportunities (Akinwale & Akinwale, 2019b).

5. Measurement and Evaluation:
   - **Entrepreneurship Skills Measurement Model:**
     This theory focuses on developing measurement models to assess students' entrepreneurial skills, which can include aspects of knowledge, technical skills, and entrepreneurial attitudes (Sugianingrat et al., 2020).
   - **Holistic Evaluation Approach:**
     This approach emphasizes the need to evaluate the impact of entrepreneurship education and the family environment holistically, including measuring the effectiveness of educational programs and evaluating family support (Jufri et al., 2018).

**CONCLUSION**

The Entrepreneurship Education variable has a calculated t that is greater than the t table and the calculated (sig.) value obtained is smaller than 0.05. This means that H1 or the first hypothesis is accepted, so it can be concluded that Entrepreneurship Education has a significant effect on Entrepreneurial Skills.

The Family Environment variable has a calculated t that is greater than the t table and the calculated (sig.) value obtained is smaller than 0.05. This means that H2 or the second hypothesis is accepted, so it can be concluded that Family Environment has a significant effect on Entrepreneurial Skills.

Entrepreneurship Education and Family Environment have a significant positive effect on Entrepreneurial Skills, so it can be concluded that the Entrepreneurship Education and Family Environment variables together or simultaneously have a significant and positive effect on Entrepreneurial Skills by 75.2% and the remaining 24.8% is influenced by factors. others not examined in this study.
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