

The Mediating Role of Strategic Thinking in Transforming Entrepreneurial Intention into Entrepreneurial Activity

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ABSTRACT

This study attempts to test and analyze the effect of entrepreneurial intention and strategic thinking on entrepreneurial activity. Additionally, the mediating effect of strategic thinking on the effect of entrepreneurial intention on entrepreneurial activity was also be tested and analyzed. The population of this study were bachelor's degree graduate from various higher education institutions in Surabaya who graduates between 2019–2023 periods and were actively doing entrepreneurial works. Using the snowball sampling technique, 142 respondents were obtained. Then, data analysis was carried out using the partial least square (PLS) technique with the help of the SmartPLS version 3.2.9 application. The findings of this study are that entrepreneurial intention has not been proven to encourage the real entrepreneurial activity. However, strategic thinking has a positive and significant effect on entrepreneurial activity. In addition, this research also finds that there is a mediating effect of the strategic thinking on the effect of entrepreneurial intention on entrepreneurial activity.

Keywords: *Entrepreneurial Activity, Entrepreneurial Intention, Strategic Thinking, Theory of Planned Behavior (TPB), Higher Education Graduates*

1. INTRODUCTION

1.1. Background

Nowadays, the unemployment rate among higher education graduates is still high in Indonesia. Based on data from the Central Statistics Agency, as of February 2023 there were 945,413 highly educated unemployed people, or 11.8% of the total unemployed at that time. Of that number, 753,732 of them were graduates of undergraduate programs, while 191,681 others were graduates of diploma programs (Gianie, 2023).

This phenomenon of the high unemployment rate among higher education graduates occurs because so far they have been more preferred in finding work rather than creating their own jobs. On the other hand, the available job vacancies are very limited, and may even decrease when economic conditions are less conducive. As a result, the supply of labor is much greater than the demand for labor, resulting in a high unemployment rate among higher education graduates.

One solution to fill the gap between the supply and demand of labor is to create as many entrepreneurs as possible. Entrepreneurs can open various new businesses that can absorb more workers, thus reducing the unemployment rate. For this reason, it is hoped that reliable entrepreneurs will emerge from higher education graduates. However, the reality shows that the number of higher education graduates who choose to become entrepreneurs is still very low.

In reality, there is currently a substantial gap between the level of intention in entrepreneurship among students and the number of higher education graduates who actually become entrepreneurs. Several research findings show that the intention in entrepreneurship among students in Surabaya is actually quite high, such as research by Masruroh (2018), Candra and Nurlaela (2019), and also the authors survey result on several students from various universities in Surabaya in 2023. If calculated on average from the results of these studies, it was found that 80.7% of students had an intention in entrepreneurship, both high and moderate.

On the other hand, tracer study data from several higher education institutions in Surabaya shows that the number of graduates who choose a career as entrepreneurs after graduating from college is still very small. Combined data from

several higher education institutions in Surabaya shows that on average only 8.94% of higher education graduates actually become entrepreneurs. Thus, if the data on students' entrepreneurial intention and the tracer study data are compared, it can be generally estimated that there have been around 70% of higher education graduates who did not or have not yet realized their intention as entrepreneurs.

This fact is also an indication that the path from entrepreneurial intention to entrepreneurial activity is not as simple as expected. Alternative variables need to be added to this path in order to strengthen the effect of entrepreneurial intention on entrepreneurial activity, both in the form of mediation and moderation. One form that the authors consider most potential for further research is strategic thinking mediation on the relationship between the effect of entrepreneurial intention and entrepreneurial activity.

Based on the background that has been explained above, the research questions in this study is as follows:

1. Does entrepreneurial intention have a significant effect on entrepreneurial activity?
2. Does strategic thinking have a significant effect on entrepreneurial activity?
3. Does strategic thinking mediate the effect of entrepreneurial intention on entrepreneurial activity?

1.2. Conceptual Framework and Hypothesis Development

Based on the background and the research questions above, a conceptual framework can be drawn as shown in Figure 1. Furthermore, various hypotheses in this study can be developed by referring to this framework.

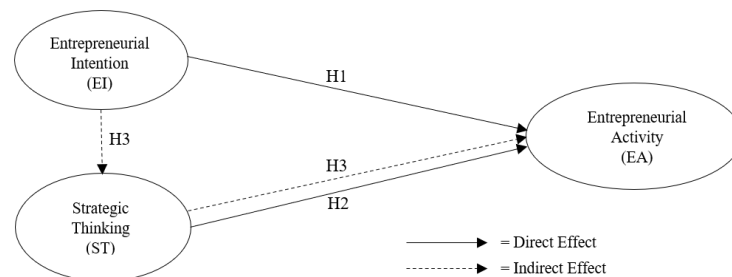


Figure 1 Conceptual Framework

The initial model of the theory of planned behavior (TPB) formulated by Ajzen (1991) suggests that there is a direct effect of intention in carrying out certain behaviors on the emergence of activities related to the behavior in question. In the context of entrepreneurship, this is empirically supported by several studies that prove that entrepreneurial intention has a significant and positive effect on entrepreneurial activity (Farooq, 2018; Yaseen *et al.*, 2018; Belchior and Lyons, 2021; Cai *et al.*, 2021; Yi, 2021; Duong *et al.*, 2022; and Li *et al.*, 2023). However, there is result from Yang *et al.* (2022) which do not find significant effect of entrepreneurial intention on entrepreneurial activity. This contradiction makes the relationship between entrepreneurial intention and entrepreneurial activity still interesting to be studied further. Thus, the following hypothesis can be formulated:

Hypothesis 1 (H1): Entrepreneurial intention has a significant effect on entrepreneurial activity.

Strategic thinking skills are believed to be able to improve entrepreneurial competence (Stonkutė, 2022). One of the important elements of strategic thinking is the ability to see various business opportunities in the future. One of the research findings of Wibisono and Thao (2023) shows that the ability to see future business opportunities has a positive and significant effect on entrepreneurial activities such as establishing new businesses and investing in existing businesses. This is a strong indication that strategic thinking is one of the factors that can enhance entrepreneurial activity. Thus, the following hypothesis can be formulated:

Hypothesis 2 (H2): Strategic thinking has a significant effect on entrepreneurial activity.

Researchers are still trying to uncover whether entrepreneurial intention can by itself encourage real entrepreneurial actions or activities, or whether other variables are needed, either partially or simultaneously, to encourage such actions or activities. On the other hand, strategic thinking also has the potential to make entrepreneurs more ready to realize sustainable businesses. Based on this consideration, the authors try to also propose the following hypothesis:

Hypothesis 3 (H3): Strategic thinking mediates the effect of entrepreneurial intention on entrepreneurial activity.

2. RESEARCH METHODS

2.1. Population, Sample, and Sampling Techniques

The population of this study were bachelor's degree graduate from various higher education institutions in Surabaya who graduated between 2019–2023 periods and are actively pursuing their profession as entrepreneurs. Data were not taken from the entire population, but from a sample consisting of several members of the population who considered representative. A nonprobability sampling approach is used in this study because this research population is considered infinite, meaning that its size cannot be determined with certainty due to the lack of truly accurate data regarding the number of higher education graduates who are currently running business activities. A snowball sampling was used as the sampling technique, which finally able to collect 142 respondents.

2.2. Operational Definition of Variables

The latent variable of entrepreneurial intention in this study is operationally defined as the respondent's strong desire to build their own business accompanied by real steps to realize it at a certain time. This latent variable of entrepreneurial intention is divided into indicator variables developed based on the indicators used by Thompson (2006), Iakovleva *et al.* (2011), Dinis *et al.* (2013), Sesen (2013), and Putra *et al.* (2018).

The latent variable of strategic thinking in this study is operationally defined as the respondent's ability to determine clear goals and find the right strategy to achieve those goals based on critical and creative thinking about the dynamic business environment. This latent variable of strategic thinking is divided into indicator variables developed based on the indicators used by Liedtka (1998) and Dhir *et al.* (2018).

The latent variable of entrepreneurial activity in this study is operationally defined as the real actions shown by respondents in starting, building, and developing their own business. This latent variable of entrepreneurial activity is divided into indicator variables developed based on the indicators used by Farooq (2018) and Belchior and Lyons (2021).

2.3. Data Analysis Techniques

The inferential statistical data analysis technique used in this study is partial least square (PLS) with the help of the SmartPLS application version 3.2.9. The details of the variables in this research model are as follows:

Latent variable EI: Entrepreneurial Intention, with the following indicator variables:

- EI1: Desire to do business
- EI2: Saving business funds
- EI3: Learning to do business

Latent variable ST: Strategic Thinking, with the following indicator variables:

- ST1: Systems perspective
- ST2: Intent-focused
- ST3: Intelligent opportunism
- ST4: Thinking in time
- ST5: Hypothesis-driven
- ST6: Trend analysis

Latent variable EA: Entrepreneurial Activity, with the following indicator variables:

- EA1: Business plan
- EA 2: Business investment
- EA 3: Business funding
- EA 4: Employees
- EA 5: Innovative products/services
- EA 6: Creative marketing strategies

3. RESULTS AND DISCUSSION

3.1. Research Instrument Test

This research instrument are tested using responses from the first 30 respondents. The calculated r-value of all indicators was above the pre-calculated r-table (0.361), so that the instrument as a whole is considered valid. The measurement instrument for the three latent variables in this research also had a Cronbach Alpha value above 0.70 so that all were proved reliable. These validity and reliability tests were done using the SPSS version 20 application.

3.2. Data Analysis Results

In this study, the SmartPLS version 3.2.9 application was used to support data processing activity. Initially, a structural model estimation was carried out by running the PLS Algorithm calculation. In the first stage of the PLS Algorithm calculation, there were five indicator variables that had a loading factor < 0.70 so they had to be eliminated, namely EA1, EA2, EA3, and EA4. In the second stage, all remaining indicator variables had a loading factor > 0.70 (see Figure 2). Thus, the structural model calculated at this stage is considered final and appropriate for use in the further analysis.

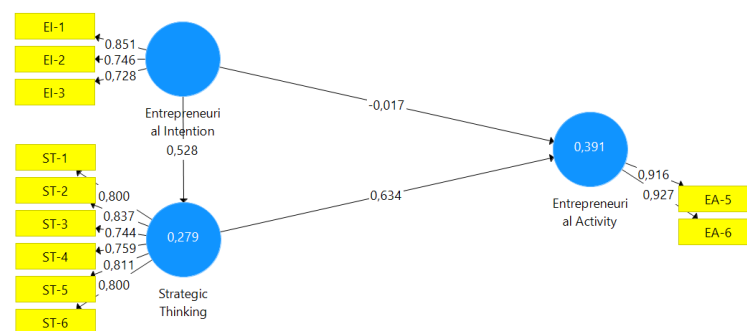


Figure 2 Final Structural Model

The loading factor value of all indicator variables are > 0.70 and the average variance extracted (AVE) value of all latent variables are > 0.50 , indicating that the convergent validity for the outer model has been fulfilled. The composite reliability requirement for the outer model has also been fulfilled because the composite reliability value of all latent variables is > 0.70 . Furthermore, the results of cross-loadings between indicator variables and latent variables, the calculation of the Fornell-Larcker criteria, and the calculation of the Heterotrait-Monotrait (HTMT) correlation ratio (< 0.90) have also indicated that the discriminant validity requirement for the outer model has been completely fulfilled.

For the evaluation of the inner model, it was found that the Adjusted R Square value was 0.382 for the latent variable of entrepreneurial activity, means that it is categorized as moderate, since it is already above 0.33 but has not yet reached 0.67. In addition, the resulting Q^2 value (0.307) is also above zero, showing a predictive relevance of the structural model. The calculation of variance inflation factor (VIF) for both indicator variables (Outer VIF) and latent variables (Inner VIF) already get VIF values < 5 . This indicates that there is no multicollinearity between variables, both in indicator variables and latent variables.

The calculation of the model fit produces SRMR values for both the saturated model (0.073) and the estimated model (0.073), which are both already smaller than 0.080. The rms Theta value of 0.227 is also close to zero. These results indicate that the structural model in this study has met the criteria for model feasibility (goodness of fit). Thus, the model can be further processed in the form of hypothesis testing related to the relationship of effect between variables.

3.3. Hypothesis Test Results

This hypothesis testing is done by looking at the t-value and p-value. In order for a relationship to be proved significant, it must meet the requirements of t-value > 1.96 (t-table value if a significance level of 0.05 is used) and p-value < 0.05 . Table 1 shows the significance of the relationship of effect between variables in this study based on the results of calculating t-values and p-values.

Hypothesis 1 in this study states that entrepreneurial intention has a significant effect on entrepreneurial activity. Table 1 shows the test of this intervariable effect produces a t-value of 0.210 (< 1.96) and a p-value of 0.834 (> 0.05) so that the effect of entrepreneurial intention on entrepreneurial activity is stated as not significant. Thus, Hypothesis 1 is not proved.

Table 1 Significance of the Relationship of Effect between Variables

Hypothesis	Intervariable Effect	Path Coefficient	t-value	p-value	Significance
Hypothesis 1	EI → EA	-0,017	0,210	0,834	Not Significant
Hypothesis 2	ST → EA	0,634	8,178	0,000	Significant
Hypothesis 3	EI → ST → EA	0,335	5,272	0,000	Significant

Hypothesis 2 in this study states that strategic thinking has a significant effect on entrepreneurial activity. Table 1 shows that the test of this intervariable effect produces a t-value of 8.178 (> 1.96) and a p-value of 0.000 (< 0.05). This results mean that the effect of strategic thinking on entrepreneurial activity is significant. Thus, Hypothesis 2 is proved.

Hypothesis 3 in this study states that strategic thinking mediates the effect of entrepreneurial intention on entrepreneurial activity. In Table 1, it can be seen that the test of this intervariable effect gives a t-value of 5.272 (> 1.96) and a p-value of 0.000 (< 0.05). This results mean that the effect of entrepreneurial intention on entrepreneurial activity through strategic thinking mediation is stated to be significant. Using the VAF (variance accounted for) calculation, it can also be concluded that the mediation effect of strategic thinking can be considered full or complete, not just partial. Thus, Hypothesis 3 is proved.

4. CONCLUSION

Based on the results of data analysis, several conclusions can be put forward as follows:

1. Entrepreneurial intention has no significant effect on entrepreneurial activity. The respondents' interest to become entrepreneurs does not directly motivate them to carry out real entrepreneurial activities.
2. Strategic thinking has a significant effect on entrepreneurial activity. The respondents' competencies in various aspects of strategic thinking can encourage them to carry out real entrepreneurial activities, such as developing innovative products or services and implementing creative marketing strategies.

Strategic thinking is proved to completely mediate the effect of entrepreneurial intention on entrepreneurial activity. This means that entrepreneurial intention will cultivate strategic thinking skills first. After that, this strategic thinking can be expected to initiate the real entrepreneurial activities.

Based on the conclusions above, higher education administrators, especially entrepreneurship educators, are expected to continue to improve and refine strategic entrepreneurship learning curriculum in order to nurture the strategic thinking patterns among students. The five elements of strategic thinking from Liedtka (1998), namely systems perspective, intent-focused, intelligent opportunism, thinking in time, and hypothesis-driven, can be integrated into the entrepreneurship learning curriculum. Learning can be directed to sharpen strategic thinking skills using these five elements, for example by integrating them into case studies, business plan competitions, or student business incubation programs.

Regarding the development of theory in the field of management and entrepreneurship, it is hoped that there will be more research that focuses on the strategic aspects of entrepreneurship. Further research can also include other variables that can be regarded as antecedents of entrepreneurial intention and entrepreneurial activity variables. Some antecedent variables of entrepreneurial intention that have the potential to be studied further include family background, environment, and entrepreneurship education. Antecedent variables of entrepreneurial activity that have the potential to be studied further include culture, social support/network, government policy, environment, entrepreneurship education, and capital aspects of entrepreneurship.

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