

Analysis Of The Effect Of Internal Locus Of Control And Need For Achievement On Entrepreneurial Intention Through Entrepreneurial Attitude In Vocational High School Students

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Abstract

This study aims to analyze the influence of internal locus of control and need for achievement on entrepreneurial intention with entrepreneurial attitude as a mediating variable among vocational high school (SMK) students. The background of this study stems from the need to strengthen students' psychological factors in an effort to foster entrepreneurial spirit and prepare SMK graduates to be able to create business opportunities independently. This study uses a quantitative approach with an explanatory design. The population consists of 210 students in the 12th grade of the Marketing Program from four SMKs in Malang City, while 131 students were sampled using proportional random sampling. Data were collected using a Likert scale questionnaire that had undergone validity and reliability tests. Data analysis was performed using path analysis with LISREL 8.8 to identify the direct and indirect effects between variables. The results showed that internal locus of control had a positive and significant effect on entrepreneurial attitudes. Similarly, the need for achievement was found to have a positive and significant effect on increasing students' entrepreneurial attitudes. Both variables also had a positive and significant effect on entrepreneurial intention. Entrepreneurial attitude was found to have a positive and significant effect on entrepreneurial intention and to act as a partial mediator in the relationship between internal locus of control and need for achievement with entrepreneurial intention. These findings indicate that psychological factors and individual attitudes play an important role in encouraging entrepreneurial intentions among vocational high school students. Therefore, strengthening entrepreneurship education needs to focus on developing students' character, motivation to achieve, and self-confidence to dare to start a



business.

Keyword: internal locus of control, need for achievement, entrepreneurial attitude, entrepreneurial intention, vocational high school students

INTRODUCTION

Entrepreneurship has become one of the main pillars in strengthening the modern economy because it can create jobs, reduce unemployment, and increase national innovation capacity (OECD, 2021; Urbano et al., 2020). In the context of Indonesia, entrepreneurship has an important role to play in overcoming high unemployment rates, especially among young people. Data from the Central Statistics Agency (2024) shows that vocational school graduates still account for the highest number of open unemployment. Given that vocational schools are designed with competency-based and practical curricula, this condition emphasizes the need to strengthen entrepreneurial interest and intention as an effort to reduce graduates' dependence on the formal job market (Sari & Wijaya, 2021).

Entrepreneurial intention is a key predictor of actual entrepreneurial behavior, as stated by Liñán and Fayolle (2023) and supported by recent longitudinal findings (Obschonka & Stuetzer, 2022). The concept of entrepreneurial intention reflects an individual's psychological readiness to start a business and is influenced by various internal and external factors. In the context of vocational education, entrepreneurial intention is an important indicator for measuring the success of education programs in fostering young entrepreneurs (Utami & Prasetyo, 2020). Therefore, research that identifies the factors that shape entrepreneurial intention is very strategic for the development of vocational education.

Theoretically, most studies use the Theory of Planned Behavior (Ajzen, 1991), which remains relevant in recent research (Nguyen et al., 2020; Yurtkoru et al., 2021). According to TPB, entrepreneurial intention is influenced by entrepreneurial attitude, subjective norms, and perceived behavioral control. Of these three factors, entrepreneurial attitude is often found to be the most significant predictor in various populations (Shane et al., 2020; Hasyim & Ardianti, 2021). A study conducted by Budiarto and Pramudita (2022) on vocational students also shows that entrepreneurial attitude is the most consistent variable influencing entrepreneurial intention.

In addition to TPB factors, research over the past five years has emphasized the importance of individual psychological characteristics, one of which is internal locus of control. Individuals with a high internal locus of control believe that success is determined by their own





efforts and abilities, not by external circumstances (Rotter, 1966; replicated by Hayat & Munawar, 2021). Recent studies show that internal locus of control has a significant effect on entrepreneurial orientation, self-confidence, perseverance, and willingness to take risks (Wang et al., 2022; Ferreira et al., 2020). For vocational students, internal locus of control is an important factor because it correlates with independent career decision-making (Rahmawati & Andini, 2023).

Another psychological factor that has a strong influence on entrepreneurial intention is the need for achievement. This concept was coined by McClelland, and recent research confirms that individuals with a high need for achievement are more achievement-oriented and better prepared to face entrepreneurial challenges (Barba-Sánchez et al., 2022; Altinay et al., 2020). Studies in the context of education show that students with high achievement motivation are quicker to develop an interest in starting a business (Lestari & Tjakraatmadja, 2020; Memon et al., 2022).

Empirical findings show that internal locus of control and need for achievement not only have a direct impact on entrepreneurial intention, but also indirectly through entrepreneurial attitude. According to Gurel et al. (2021), entrepreneurial attitude is an important mediating variable that bridges psychological factors and entrepreneurial interest among vocational students. Similar results were also found in international studies (Wang et al., 2022; Barba-Sánchez et al., 2022) and regional studies (Prasetyo & Dewi, 2021; Fitriani, 2022).

However, research on entrepreneurial intentions among vocational high school students is still far less than research on university students. Limited attention has been paid to psychological entrepreneurial antecedents among vocational students (Nurhadi & Malik, 2021). The majority of studies focus on business or management students, even though the psychological dynamics of vocational high school students are different because they are more influenced by industrial work experience, limited resources, and the learning environment (Yuniarto & Asih, 2022).

In addition, previous studies have overlooked the mediating role of entrepreneurial attitude in explaining the relationship between internal locus of control, need for achievement, and entrepreneurial intention among vocational students (Hasyim & Ardianti, 2021; Putra & Suryana, 2022). In fact, international studies show that the mediation model provides a more accurate explanation of entrepreneurial intention (Altinay et al., 2020; Urban & Ratsimanetrimanana, 2021). The absence of a comprehensive model in the context of Indonesian vocational schools indicates that there is still a wide research gap.

Malang, as one of the largest educational cities in Indonesia, has many vocational schools





with very high potential for entrepreneurial development. However, various local reports and studies reveal that many students still have low entrepreneurial motivation, lack confidence, and are not psychologically prepared to start a business (Santoso & Rahayu, 2022; Wulandari, 2023). Therefore, the analysis of psychological factors such as internal locus of control, need for achievement, and entrepreneurial attitude is important to gain a deeper understanding of how entrepreneurial intention is formed in vocational high school students.

Considering the urgency, research gap, and practical contributions in the field, this study aims to analyze the influence of internal locus of control and need for achievement on entrepreneurial intention through entrepreneurial attitude as a mediating variable in vocational high school students. This study is expected to provide theoretical contributions through the development of a more comprehensive empirical model, as well as practical contributions in the development of entrepreneurship learning strategies in vocational schools.

METHOD

This study uses a quantitative approach with an explanatory design, which is research that aims to explain the causal relationship between variables based on measurable empirical data. This approach is in line with the research objective to examine the influence of internal locus of control and need for achievement on entrepreneurial intention with entrepreneurial attitude as a mediating variable. Explanatory designs are widely used in entrepreneurship research because they are able to test structural relationships systematically and objectively (Creswell & Creswell, 2018; Hair et al., 2021). Thus, this study aims to develop an empirical model that explains the mechanism of entrepreneurial intention formation in vocational high school students.

The research population consisted of all 12th grade students majoring in Marketing at four vocational schools in Malang City, totaling 210 students. To determine the sample, proportional random sampling was used to ensure proportional representation based on the number of students in each school. Calculations using the Slovin formula with a 5 percent error rate resulted in a minimum sample of 136 respondents, which met the minimum requirements for multivariate analysis (Hair et al., 2021). The sample size also met the requirements for Structural Equation Modeling (SEM) analysis, which requires a minimum of 5–10 times the number of indicators in the model (Kline, 2016).

Data were collected using a closed questionnaire with a 1–5 Likert scale (strongly disagree to strongly agree). The instrument was developed based on indicators from previous validated studies, namely internal locus of control (Rotter; replicated by Ferreira et al., 2020),



need for achievement (McClelland; adapted by Barba-Sánchez et al., 2022), entrepreneurial attitude (Ajzen, 1991; Nguyen et al., 2020), and entrepreneurial intention (Liñán & Fayolle, 2023). Before use, the instrument was tested using a pilot test on 30 respondents. The results showed that all items met convergent validity with factor loadings > 0.5 and construct reliability with Cronbach's Alpha and Composite Reliability > 0.70 , so the instruments were declared feasible (Hair et al., 2021; Henseler et al., 2016).

The data analysis technique in this study used Partial Least Squares-based Structural Equation Modeling (SEM-PLS) through SmartPLS 4 software. SEM-PLS was chosen because it can handle relatively small to medium sample sizes, models with reflective latent variables, and predictive and exploratory analysis objectives (Henseler et al., 2016; Hair et al., 2021). The analysis was conducted in two stages, namely the outer model to assess construct validity and reliability and the inner model to test direct and indirect effects and R^2 values. Significance testing was performed using bootstrapping with 5,000 subsamples. All tests were conducted at a significance level of 0.05 to ensure the reliability of the analysis results.

RESULTS AND DISCUSSION

Path analysis was used to test the direct and indirect effects of the variables need for achievement (X1) and internal locus of control (X2) on entrepreneurial intention (Y) through entrepreneurial attitude (X3) among vocational high school students majoring in marketing in Malang City. This analysis technique allows the identification of structural relationship patterns between variables by looking at path coefficient values, the direction of influence, and the level of significance through t-value values.

The analysis results show variations in the influence of each variable, whether positive, negative, direct, or through mediating variables. A summary of the results of the relationship between the research variables is presented in the following table.

Table 1. Results of the Analysis of the Influence Between Variables

No	Variable Correlations	Path Coefficient	t-count	Direction of Influence	Description
1	X1 $\rightarrow$ X3 (Need for Achievement $\rightarrow$ Entrepreneurial Attitude)	0,20	2,18	Positive	Significant
2	X2 $\rightarrow$ X3 (Internal Locus of Control $\rightarrow$ Entrepreneurial Attitude)	0,49	5,35	Positive	Significant

3	X1 → Y (Need for Achievement → Entrepreneurial Intention)	0,34	4,82	Positive	Significant
4	X2 → Y (Internal Locus of Control → Entrepreneurial Intention)	-0,21	-2,71	Negative	Significant
5	X3 → Y (Entrepreneurial Attitude → Entrepreneurial Intention)	0,73	10,88	Positive	Significant

Source: processed by researcher, 2025

Table 2. Direct, Indirect, and Total Effects

Independent Variable → Dependent Variable	Direct Influence	Indirect Effect (via X3)	Total Influence
X1 → X3	0,20	–	0,20
X2 → X3	0,49	–	0,49
X1 → Y	0,34	0,14	0,48
X2 → Y	-0,21	0,35	0,14
X3 → Y	0,73	–	0,73

Source: processed by researcher, 2025

Based on the results of the analysis shown in the table above, it can be seen that the variables need for achievement (X1) and internal locus of control (X2) play an important role in influencing entrepreneurial attitudes (X3). Both variables have a positive and significant effect, so that the higher the students' motivation to achieve and self-control beliefs, the higher their entrepreneurial attitudes.

Furthermore, need for achievement also has a positive and significant effect on entrepreneurial intention, both directly and through entrepreneurial attitude. This shows that students who have a high need for achievement tend to be more interested in planning and starting a business.

Meanwhile, internal locus of control shows a different pattern. Although it has a positive effect on entrepreneurial attitudes, its direct effect on entrepreneurial intention is significant but negative. This condition can be interpreted as meaning that high self-control beliefs do not automatically encourage students to have entrepreneurial intentions, unless accompanied by strong entrepreneurial attitudes. This finding is reinforced by the greater indirect influence



compared to the direct influence, proving that entrepreneurial attitude acts as an effective mediator in this relationship.

The entrepreneurial attitude variable was found to have the strongest influence on entrepreneurial intention, as indicated by a path coefficient of 0.73. This confirms that attitude is a key factor in the formation of entrepreneurial intention, in line with the Theory of Planned Behavior (TPB) framework, which states that attitude is the main predictor of behavioral intention.

Overall, the results of the study show that an increase in students' entrepreneurial intention can be achieved through the strengthening of entrepreneurial attitude, which in turn can be formed through an increase in the need for achievement and internal locus of control.

DISCUSSION

Overall, the results of this study indicate that need for achievement and internal locus of control play a significant role in shaping the entrepreneurial attitudes and intentions of vocational high school students, especially those in the marketing program, who are expected to develop business understanding and orientation during their education. These findings are in line with the latest research trends over the past five years, which confirm that internal psychological factors are the main foundation for the development of entrepreneurial intentions among the younger generation. In this context, the need for achievement has been proven to contribute strongly to entrepreneurial attitudes. Students with high achievement motivation tend to have optimistic attitudes, a strong desire to achieve targets, the ability to manage challenges, and a strong determination to complete entrepreneurial tasks. This is reinforced by the findings of Ananda and Noviani (2024), who state that the need for achievement is one of the most significant predictors in increasing students' psychological readiness for entrepreneurial activities. Other studies also reveal that a high need for achievement encourages students to be more active in participating in entrepreneurial activities and have a strong tendency to evaluate business opportunities more rationally (Putri & Setiawan, 2022). Thus, achievement motivation is a major factor that can shape students' positive thinking about entrepreneurship.

In addition to achievement motivation, the internal locus of control factor was also found to have a direct influence on the formation of students' entrepreneurial attitudes. In this study, students with an internal locus of control tended to perceive that the results they achieved were a reflection of their personal efforts, hard work, and perseverance, rather than luck or external conditions. This pattern is in line with the latest research by Saputro, Adi, and Totalia (2023),





which shows that vocational high school students with an internal locus of control are better able to develop an independent mindset, are confident in making entrepreneurial decisions, and are more stable in maintaining their business orientation even when facing challenges. Additionally, research in educational psychology also shows that an internal locus of control plays an important role in strengthening an entrepreneurial mindset, particularly through increased self-confidence, risk management skills, and readiness to take initiative in a competitive learning environment (Rahmawati & Hadi, 2021). Therefore, the results of this study reinforce that students' belief in their own abilities is a fundamental factor in the development of an entrepreneurial attitude.

The results of this study also show that the need for achievement has a direct effect on students' entrepreneurial intentions. Individuals with a high need for achievement have been shown to be more motivated to become entrepreneurs because they have a strong orientation toward achieving success and deriving satisfaction from those achievements. International research over the past five years has also confirmed that achievement motivation is the main driver that shapes the desire of the younger generation to choose entrepreneurship over structured employment (Liu & Wong, 2020; Martinez, 2021). In the context of vocational education, achievement motivation is even a key indicator that determines student participation in school entrepreneurship programs, such as business projects, field work practices, and student business competitions (Halim & Rasyid, 2022). Similar findings were also found in economic education research in Indonesia, which stated that students with high achievement motivation would show stronger entrepreneurial intentions than students with low motivation (Fauzi & Amalia, 2021).

The findings regarding internal locus of control, which does not always have a direct positive effect on entrepreneurial intentions, reveal interesting psychological dynamics. Recent international research confirms that internal locus of control generally does not directly influence entrepreneurial intentions, but rather indirectly through mediator variables such as self-efficacy or entrepreneurial attitudes (Frontiers, 2025). This indicates that students' belief in self-control does not necessarily influence their desire to start a business if they do not yet have a positive attitude or do not feel competent. Other findings state that internal locus of control requires a supportive educational environment, such as project-based learning, intensive entrepreneurship training, or exposure to entrepreneurial role models in order to function optimally in encouraging students' entrepreneurial intentions (Setyawan & Jannah, 2023). Thus, internal locus of control acts as a psychological foundation that requires additional learning stimuli to have a direct influence on entrepreneurial intentions.





The most consistent finding in this study is that entrepreneurial attitudes are the strongest predictor of students' entrepreneurial intentions. This is supported by various studies over the past five years which confirm that attitudes are the most stable and strongest psychological component in influencing a person's intention to start a business (Rahman & Chen, 2022). A positive attitude toward entrepreneurship includes the view that entrepreneurship provides benefits, offers high chances of success, and offers freedom in decision-making. Research on vocational students also shows that entrepreneurial attitudes are formed through practical learning experiences, competitive activities, and business simulations that give rise to positive perceptions of the entrepreneurial profession (Fauzi & Amalia, 2021). Furthermore, recent research indicates that attitudes are a key mediator linking internal psychological factors such as achievement motivation and locus of control with entrepreneurial intention (Saputro et al., 2023; Ananda & Noviani, 2024). Thus, fostering strong entrepreneurial attitudes in the school environment is a strategic element in developing young entrepreneurs.

Overall, the results of this study indicate that psychological factors such as need for achievement and internal locus of control play a fundamental role in shaping the entrepreneurial attitudes and intentions of vocational high school students. However, the findings also confirm that entrepreneurial attitudes are a dominant factor that bridges the influence of these psychological variables on entrepreneurial intentions. This has important implications for schools, namely that increasing students' entrepreneurial intentions should not only be done by strengthening technical entrepreneurial competencies, but also through character building, motivation, and entrepreneurial mindset. With the right curriculum support, business simulations, project-based learning, and exposure to entrepreneurial role models, vocational high school students can develop more positive attitudes and stronger intentions to choose the entrepreneurial path in the future.

CONCLUSION

Based on the results of the study, it can be concluded that the need for achievement and internal locus of control are psychological factors that contribute significantly to shaping the entrepreneurial attitudes and intentions of vocational high school students, where the need for achievement has been proven to have a positive influence, both directly and indirectly, on entrepreneurial intentions, while internal locus of control has a positive influence on entrepreneurial attitudes but requires mediation of attitudes in order to optimally increase entrepreneurial intentions. Entrepreneurial attitudes are the most dominant variable influencing entrepreneurial intentions, so that students' perceptions, positive views, and mental



readiness in facing the business world are the main keys to forming the desire to become entrepreneurs. Based on these findings, it is recommended that schools strengthen practice-based entrepreneurship learning programs, business simulations, and project activities that can foster motivation to achieve and increase students' confidence in their entrepreneurial abilities. Teachers and entrepreneurship mentors also need to provide more intensive guidance through mentoring activities, soft skills training, and the provision of entrepreneurial role models so that students' entrepreneurial attitudes and intentions can develop more optimally. In addition, students are expected to actively participate in entrepreneurial activities both inside and outside of school to broaden their experience and strengthen their readiness to start a business after graduation.

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