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Entrepreneurial Intention in Vocational Education: Learning, Literacy, and Family Support

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Abstract: Entrepreneurial intention is a proximal antecedent of venture creation and is particularly consequential in vocational education, where graduates are expected to contribute as both skilled employees and prospective job creators. This study examined whether entrepreneurship education, entrepreneurial literacy, and the family environment predicted the entrepreneurial intentions of vocational high school students. A quantitative, cross-sectional explanatory design was adopted. The population comprised 716 Grade XI students at SMK Negeri 2 Tulungagung, Indonesia, and 257 respondents were selected through proportionate stratified random sampling. Data were collected using a five-point Likert-scale questionnaire and analyzed by multiple linear regression in SPSS 27. The instruments demonstrated strong internal consistency, and the regression assumptions of normality, linearity, absence of problematic multicollinearity, and homoscedasticity were satisfied. Entrepreneurship education ($\beta = .414$, $p < .001$), entrepreneurial literacy ($\beta = .302$, $p < .001$), and the family environment ($\beta = .159$, $p = .010$) each significantly and positively predicted entrepreneurial intention. Collectively, the predictors explained 66.0% of the variance in entrepreneurial intention (adjusted $R^2 = .660$), and the overall model was significant, $F(3, 253) = 166.646$, $p < .001$. These findings complement the Theory of Planned Behavior by showing that educational experience, knowledge-based capability, and family support constitute mutually reinforcing contextual conditions associated with students' entrepreneurial career intentions. Vocational schools should therefore combine experiential entrepreneurship education, systematic entrepreneurial-literacy development, and structured family engagement to strengthen students' readiness for venture creation.

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1. Introduction

Rapid technological change, labor-market volatility, and intensifying competition have increased the need for vocational graduates who can generate employment rather than rely exclusively on existing jobs. Entrepreneurial intention is central to this objective because it represents the deliberate commitment that precedes venture-creation behavior (Ajzen, 1991; Kautonen et al., 2015; Lihua, 2022). Although intention does not

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invariably translate into action, it remains the most immediate motivational antecedent of planned entrepreneurial behavior and therefore provides an analytically important starting point for understanding prospective venture creation (Kautonen et al., 2015; Shirokova et al., 2016).

The Theory of Planned Behavior (TPB) explains behavioral intention through attitudes toward the behavior, subjective norms, and perceived behavioral control (Ajzen, 1991). In an entrepreneurial context, students are more likely to consider venture creation when they regard entrepreneurship as desirable, perceive approval from significant others, and believe that they possess the capability and resources required to act (Krueger et al., 2000; Liñán & Chen, 2009). Entrepreneurship education can influence attitudes and perceived behavioral control by exposing students to authentic business tasks; entrepreneurial literacy can reduce cognitive uncertainty by strengthening opportunity-recognition and planning capabilities; and the family environment can shape subjective norms through encouragement, role modeling, and access to relational or material support (Carr & Sequeira, 2007; Nguyen & Nguyen, 2024).

Vocational schools in Indonesia are expected to prepare students for both employment and self-employment. Nevertheless, the transition from completing entrepreneurship coursework to selecting entrepreneurship as a genuine career remains problematic. A preliminary assessment at SMK Negeri 2 Tulungagung indicated that 75% of students preferred paid employment, whereas only 25% considered entrepreneurship. Interviews with six Grade XI students further revealed concerns about business failure, unstable income, and financial loss. Entrepreneurship teachers likewise reported that practical activities were frequently approached as short-term course assignments rather than sustained opportunities to develop creativity, innovation, commercial judgment, and confidence.

Prior research generally suggests that entrepreneurship education is positively associated with entrepreneurial intention, although the magnitude of this relationship varies according to program design, pedagogical quality, prior intention, and contextual conditions (Bae et al., 2014; Nabi et al., 2017; Otache et al., 2024; Overwien et al., 2024; Sun et al., 2023; Thomas, 2023; Xu et al., 2023). Recent evidence also indicates that institutional and educational support can influence intention through cognitive and affective mechanisms, including entrepreneurial self-efficacy, opportunity recognition, and attitudes toward entrepreneurship (Otache et al., 2024; Song & Lu, 2024). Entrepreneurial literacy may further strengthen intention by equipping students with the knowledge required to recognize opportunities, evaluate market and financial considerations, and prepare a viable business plan (Hasan et al., 2024). In parallel, family support and prior exposure to family business can legitimize entrepreneurship as a socially acceptable and feasible career path (Carr & Sequeira, 2007; Chauhan et al., 2024; Edelman et al., 2016; Laspita et al., 2012; Nguyen & Nguyen, 2024).

Despite these advances, educational, cognitive, and family-level determinants are often examined independently or in partial combinations. Consequently, evidence remains limited regarding their integrated contribution within vocational secondary education, a context in which applied learning, early career formation, and family influence may intersect particularly strongly. Moreover, inconsistent findings on entrepreneurship education indicate that the presence of a course alone is insufficient; the quality of learning and the students' capacity to convert instruction into actionable entrepreneurial knowledge require explicit consideration (Bae et al., 2014; Nabi et al., 2017).

This study addresses these gaps by examining entrepreneurship education, entrepreneurial literacy, and the family environment within a single explanatory model. It investigates whether each predictor is significantly associated with entrepreneurial intention and whether the three predictors jointly explain substantial variation in students' intentions. The study contributes by contextualizing TPB in vocational secondary education and by integrating formal educational experience, knowledge-based capability, and family-level social influence. Its practical value lies in identifying complementary intervention domains for schools, teachers, families, and education policymakers seeking to strengthen vocational students' readiness for entrepreneurship.

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2. Literature Review

2.1 Entrepreneurial Intention and the Theory of Planned Behavior

Entrepreneurial intention refers to an individual's conscious commitment to establish a business or pursue an entrepreneurial career in the future. It is reflected in the seriousness with which a person considers venture creation, the extent to which entrepreneurship is incorporated into career plans, and the determination to initiate entrepreneurial action (Liñán & Chen, 2009; Thompson, 2009). Intention is therefore more specific than a general interest in entrepreneurship because it denotes a purposive and future-oriented motivational state.

Within TPB, intention is the most proximal determinant of planned behavior and is shaped by attitudes, subjective norms, and perceived behavioral control (Ajzen, 1991). Entrepreneurship research has consistently used this framework because venture creation is typically deliberate, uncertain, and resource dependent (Krueger et al., 2000; Liñán & Chen, 2009). Longitudinal evidence confirms that entrepreneurial intention is meaningfully associated with subsequent entrepreneurial action, while also showing that not all intentions are translated into behavior (Kautonen et al., 2015; Shirokova et al., 2016). Accordingly, strengthening intention is necessary but should be supported by educational and environmental conditions that facilitate later action.

2.2 Entrepreneurship Education and Entrepreneurial Intention

Entrepreneurship education is a structured learning process designed to develop the knowledge, attitudes, skills, creativity, opportunity-recognition ability, and practical judgment required for entrepreneurial activity. Its influence depends not merely on curricular inclusion but on the quality and authenticity of the learning experience. Participatory instruction, experiential tasks, exposure to entrepreneurs, venture projects, and reflection on risk and failure can strengthen perceived feasibility, entrepreneurial self-efficacy, and opportunity recognition (Nabi et al., 2017; Otache et al., 2024; Overwien et al., 2024; Song & Lu, 2024; Thomas, 2023).

Meta-analytic and systematic-review evidence indicates that entrepreneurship education is generally associated with entrepreneurial intention, but the relationship is heterogeneous and may weaken after controlling for students' pre-existing intentions (Bae et al., 2014; Nabi et al., 2017). More recent research similarly shows that the outcomes of entrepreneurship education depend on the design and combination of curricular and extracurricular activities and on the psychological mechanisms activated by those activities (Otache et al., 2024; Overwien et al., 2024). This variability underscores the importance of examining the quality of materials, learning implementation, student participation, and instructional media rather than treating entrepreneurship education as a binary exposure. On this basis, the first hypothesis is formulated as follows.

H1: Entrepreneurship education positively and significantly predicts entrepreneurial intention.

2.3 Entrepreneurial Literacy and Entrepreneurial Intention

Entrepreneurial literacy denotes the capacity to understand and apply fundamental entrepreneurial concepts, identify and evaluate business opportunities, interpret core business functions, assess risks and resources, and formulate a coherent business plan. It represents a form of knowledge-based human capital that enables individuals to make more informed entrepreneurial judgments (Hasan et al., 2024).

Students with stronger entrepreneurial literacy should be better able to interpret market information, anticipate operational and financial requirements, and translate an idea into an actionable venture concept. Such knowledge can reduce perceived uncertainty and enhance perceived behavioral control, thereby making entrepreneurship appear more manageable and attainable. The second hypothesis is therefore stated as follows.

H2: Entrepreneurial literacy positively and significantly predicts entrepreneurial intention.

2.4 Family Environment and Entrepreneurial Intention

The family is a primary social environment through which students receive values, expectations, role models, emotional encouragement, and material assistance. Family approval can function as a subjective norm, while exposure to entrepreneurial relatives may provide observational learning and practical knowledge about business formation (Carr & Sequeira, 2007; Laspita et al., 2012). Family support can also reduce the perceived personal and financial risks associated with entrepreneurship.

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Recent evidence indicates that family support is associated with stronger entrepreneurial intention and may reinforce motivational processes by providing confidence, legitimacy, emotional encouragement, and access to tangible resources (Chauhan et al., 2024; Edelman et al., 2016; Nguyen & Nguyen, 2024). In vocational education, where students are still forming career identities and may remain economically dependent on their families, these influences may be especially salient. The third hypothesis is formulated as follows.

H3: A supportive family environment positively and significantly predicts entrepreneurial intention.

2.5 Integrated Conceptual Model

Entrepreneurship education, entrepreneurial literacy, and the family environment are conceptually distinct yet mutually reinforcing. Education provides structured experience, literacy provides cognitive resources, and the family environment provides normative and relational support. Their combined presence should create a stronger basis for entrepreneurial intention than any one condition in isolation. The final hypothesis is therefore stated as follows.

H4: Entrepreneurship education, entrepreneurial literacy, and the family environment jointly and significantly predict entrepreneurial intention.

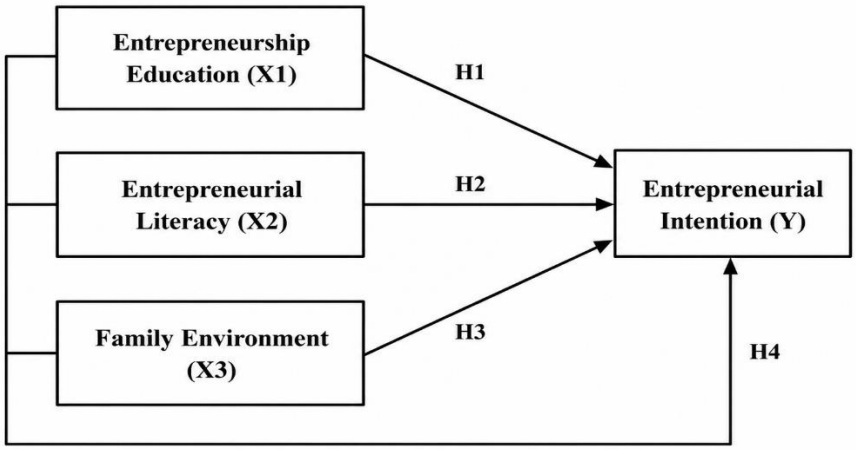

Figure 1. Conceptual Framework and Research Hypotheses

3. Research Method

3.1 Research Design and Participants

This study used a quantitative, cross-sectional explanatory design to examine the partial and joint predictive relationships of entrepreneurship education (X1), entrepreneurial literacy (X2), and the family environment (X3) with entrepreneurial intention (Y). The research was conducted among Grade XI students at SMK Negeri 2 Tulungagung, Indonesia.

The population consisted of 716 students distributed across classes of unequal size. Proportionate stratified random sampling was employed to preserve the relative representation of each class. Using the Yamane formula with a 5% margin of error, the required sample was 257 students.

3.2 Measures and Data Collection

Data were collected using a structured questionnaire with five response options ranging from 1 (strongly disagree) to 5 (strongly agree). The indicators were adapted from established conceptualizations and measurement research and were aligned with the operational definition of each construct. Before the main survey, the instrument was pilot-tested with 30 students who were not included in the final sample to assess item validity and internal consistency.

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Table 1. Variables and measurement indicators

Variable	Indicators	Key source(s)
Entrepreneurship education (X1)	Quality of learning materials; implementation of the learning process; student participation; instructional media	Nabi et al. (2017); Thomas (2023)
Entrepreneurial literacy (X2)	Basic entrepreneurial knowledge; opportunity recognition; understanding of business functions; business-planning knowledge	Hasan et al. (2024)
Family environment (X3)	Family support; parental socialization and role modeling; family economic conditions	Carr and Sequeira (2007); Nguyen and Nguyen (2024)
Entrepreneurial intention (Y)	Entrepreneurial career direction; future venture plans; serious consideration of business creation; determination to start a venture	Liñán and Chen (2009); Thompson (2009)

3.3 Data Analysis

Data were analyzed using SPSS version 27. Item validity was assessed through corrected item–total correlations, and internal consistency was evaluated using Cronbach's alpha. The assumptions for multiple linear regression were examined using a normal probability plot and the one-sample Kolmogorov–Smirnov test for residual normality, analysis-of-variance tests for linearity, tolerance and variance inflation factor (VIF) statistics for multicollinearity, and a standardized residual scatterplot for homoscedasticity. H1–H3 were evaluated using the regression coefficients and t tests, whereas H4 was assessed using the omnibus F test. Statistical significance was evaluated at $\alpha = .05$.

4. Result and Discussion

4.1 Result

4.1.1 Instrument Quality and Regression Assumptions

All questionnaire items exceeded the critical item–total correlation value of .361 in the pilot test; the minimum observed correlation was .646. The scales demonstrated excellent internal consistency: entrepreneurship education, $\alpha = .959$; entrepreneurial literacy, $\alpha = .957$; family environment, $\alpha = .957$; and entrepreneurial intention, $\alpha = .943$. The residual distribution was approximately normal, as indicated by the probability plot and a non-significant Kolmogorov–Smirnov test ($p = .096$). Deviation-from-linearity tests were non-significant for entrepreneurship education ($p = .790$), entrepreneurial literacy ($p = .499$), and the family environment ($p = .077$). Tolerance values ranged from .246 to .351 and VIF values from 2.849 to 4.065, indicating no problematic multicollinearity. The standardized residual scatterplot displayed no systematic pattern, supporting the assumption of homoscedasticity.

4.1.2 Descriptive Results

Table 2. Distribution of respondents by variable classification

Variable	Very high	High	Moderate	Low	Very low
Entrepreneurial intention	62 (24.0%)	110 (43.0%)	69 (27.0%)	15 (5.5%)	1 (0.5%)

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Variable	Very high	High	Moderate	Low	Very low
Entrepreneurship education	45 (17.0%)	139 (54.0%)	64 (25.0%)	7 (3.0%)	2 (1.0%)
Entrepreneurial literacy	54 (21.0%)	112 (43.5%)	76 (30.0%)	14 (5.0%)	1 (0.5%)
Family environment	52 (20.0%)	119 (46.0%)	74 (29.0%)	12 (5.0%)	0 (0.0%)

Most respondents reported favorable levels across the four variables. High or very high classifications were recorded for 67.0% of entrepreneurial intention scores, 71.0% of entrepreneurship-education scores, 64.5% of entrepreneurial-literacy scores, and 66.0% of family-environment scores. Nevertheless, the presence of moderate and low classifications indicates that a meaningful proportion of students may still require more intensive educational and family-based support.

4.1.3 Hypothesis Testing

Table 3. Multiple linear regression results

Predictor	B	SE B	β	t	p	Tolerance	VIF
Constant	3.819	2.513	—	1.520	.130	—	—
Entrepreneurship education	.452	.070	.414	6.437	< .001	.321	3.115
Entrepreneurial literacy	.298	.072	.302	4.117	< .001	.246	4.065
Family environment	.180	.070	.159	2.585	.010	.351	2.849

Entrepreneurship education was the strongest predictor of entrepreneurial intention ($\beta = .414$, $p < .001$), followed by entrepreneurial literacy ($\beta = .302$, $p < .001$) and the family environment ($\beta = .159$, $p = .010$). H1, H2, and H3 were therefore supported. The estimated regression equation was $Y = 3.819 + 0.452X1 + 0.298X2 + 0.180X3$.

Table 4. Model summary and omnibus test

R	R^2	Adjusted R^2	SE of estimate	F	df	p
.815	.664	.660	6.078	166.646	3, 253	< .001

The overall regression model was statistically significant, $F(3, 253) = 166.646$, $p < .001$, supporting H4. The adjusted R^2 of .660 indicates that entrepreneurship education, entrepreneurial literacy, and the family environment jointly accounted for 66.0% of the variance in entrepreneurial intention. The remaining 34.0% may reflect factors not included in the model, such as entrepreneurial self-efficacy, achievement motivation, peer influence, creativity, prior business exposure, access to finance, and digital competence.

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4.2 Discussion

4.2.1 Entrepreneurship Education and Entrepreneurial Intention

Entrepreneurship education emerged as the strongest predictor of entrepreneurial intention ($\beta = .414$, $p < .001$), indicating that students who perceived the learning process as relevant, participatory, and practice-oriented were more likely to regard entrepreneurship as a desirable and feasible career option. This finding is consistent with recent evidence that entrepreneurship education influences intention not only directly but also through psychological mechanisms such as entrepreneurial self-efficacy, passion, opportunity recognition, and attitudes toward entrepreneurship (Liu et al., 2025; Otache et al., 2024; Song & Lu, 2024). It also supports the broader conclusion that the educational effect depends on what students actually experience in the classroom rather than on the mere presence of an entrepreneurship course (Nabi et al., 2017; Nájera-Sánchez et al., 2023; Overwien et al., 2024).

From a Theory of Planned Behavior perspective, high-quality entrepreneurship education may strengthen positive attitudes by demonstrating the personal, social, and economic value of venture creation, while simultaneously increasing perceived behavioral control through repeated opportunities to apply entrepreneurial knowledge. The dual-pathway evidence reported by Liu et al. (2025) is particularly relevant because it shows that entrepreneurial passion and self-efficacy partially transmit the effect of education to intention. Thus, the relatively large coefficient obtained in the present study may reflect the capacity of well-designed learning to influence both the motivational and capability-based foundations of entrepreneurial choice.

However, the result should not be interpreted as evidence that all experiential entrepreneurship activities are automatically beneficial. Action-oriented training exposes students to uncertainty, setbacks, customer rejection, and operational problems. When such experiences are not accompanied by appropriate scaffolding and reflection, they may reduce entrepreneurial self-efficacy, particularly among learners with a weak error-mastery orientation (Bohlayer & Gielnik, 2023). This boundary condition helps explain why entrepreneurship education sometimes produces heterogeneous or even negative outcomes. Authenticity must therefore be balanced with calibrated challenge, timely feedback, psychological safety, and explicit instruction on how to learn from failure.

For vocational schools, the implication is not simply to increase instructional hours but to improve the pedagogical architecture of entrepreneurship education. Students should progress through iterative venture-development cycles involving opportunity mapping, customer discovery, product prototyping, market testing, digital promotion, basic financial analysis, and structured reflection. Teachers and industry mentors should help students interpret setbacks as information rather than as evidence of personal incapacity. Such a scaffolded model is more likely to convert practical exposure into mastery experiences, entrepreneurial confidence, and sustained career intention.

4.2.2 Entrepreneurial Literacy and Entrepreneurial Intention

Entrepreneurial literacy was the second-strongest predictor of entrepreneurial intention ($\beta = .302$, $p < .001$). This result confirms that enthusiasm for entrepreneurship is unlikely to develop into a credible career intention unless students possess sufficient knowledge to recognize opportunities, evaluate business functions, estimate resources, interpret risk, and formulate an actionable business plan. Meta-analytic evidence indicates that entrepreneurial knowledge and cognition are meaningfully related to intention, particularly through their effects on entrepreneurial attitudes and self-efficacy (Liao et al., 2022). The present finding therefore positions entrepreneurial literacy as an important cognitive foundation of perceived feasibility.

The simultaneous significance of entrepreneurship education and entrepreneurial literacy is theoretically important because it suggests that the two constructs are related but not redundant. Entrepreneurship education represents the quality of the learning process, whereas entrepreneurial literacy represents the knowledge-based capability that students retain and can apply. A student may participate in a course without developing sufficient literacy, while another may acquire entrepreneurial knowledge through family business exposure, digital media,

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or independent practice. The independent coefficient for literacy consequently indicates that what students know and can use matters beyond their general evaluation of classroom instruction.

The contemporary meaning of entrepreneurial literacy should also extend beyond conventional business-planning knowledge. Digital competencies increasingly shape how prospective entrepreneurs identify opportunities, reach customers, test products, and mobilize resources. Bachmann et al. (2024) found that digital competencies were associated with entrepreneurial intention through individual entrepreneurial orientation and self-efficacy, while Liang et al. (2025) showed that digital literacy can strengthen the effect of practice-oriented entrepreneurship education on digital entrepreneurial intention. For vocational students, entrepreneurial literacy should therefore integrate financial literacy, digital marketing, platform literacy, data-informed decision-making, and responsible use of social media and emerging technologies.

Schools should assess entrepreneurial literacy through demonstrable competence rather than infer it from course completion or examination scores. Appropriate evidence may include opportunity-analysis reports, business-model canvases, pricing and break-even calculations, digital-marketplace simulations, customer-validation records, and reflective decision logs. This competency-based approach would reveal whether students can transfer concepts to realistic entrepreneurial situations and would help teachers identify specific literacy gaps before students are expected to undertake independent venture projects.

4.2.3 Family Environment and Entrepreneurial Intention

The family environment positively predicted entrepreneurial intention ($\beta = .159$, $p = .010$), although its standardized coefficient was smaller than those of entrepreneurship education and entrepreneurial literacy. This result is consistent with the view that families influence entrepreneurial career formation through subjective norms, emotional encouragement, role modeling, prior business exposure, and access to instrumental resources. Recent evidence shows that parental support and family-business work experience can strengthen career-related entrepreneurial intentions, while subjective norms condition the extent to which these resources are translated into intention (Clinton et al., 2024). Family support has likewise been shown to reinforce motivational processes and sustainable entrepreneurial intention (Chauhan et al., 2024).

The smaller direct coefficient does not imply that family influence is unimportant. Family effects may be transmitted indirectly through self-efficacy, perceived feasibility, legitimacy, networks, and resource access rather than operating only as a direct predictor. Valdez-Juárez and García Pérez-de-Lema (2023), for example, found that the family-business environment strengthened entrepreneurial self-efficacy and contributed to entrepreneurial intention through mediated relationships. In the present vocational-school context, formal education and literacy may have more immediate and visible effects, whereas family influence may accumulate through everyday socialization and become especially important when students move from intention to actual venture creation.

Family influence is also unlikely to be uniformly positive. Entrepreneurial parents can provide knowledge, role models, and resources, but exceptionally successful parents may generate upward social comparison that makes entrepreneurship appear difficult to emulate. Criaco et al. (2017) therefore characterize parental entrepreneurial performance as a double-edged mechanism: it can enhance perceived desirability and feasibility while weakening their translation into career intention under some conditions. This nuance is relevant to the present findings because the family-environment measure combines support, parental practices, and economic conditions, dimensions that may have different and sometimes competing effects.

Schools should consequently adopt an inclusive approach to family engagement. Parents can be involved through entrepreneurship orientations, product exhibitions, mentoring sessions, and student-venture evaluations, but support should not depend exclusively on whether families own businesses or possess substantial financial resources. Students without entrepreneurial family backgrounds should receive compensatory access to external mentors, alumni entrepreneurs, community enterprises, and low-cost experimentation opportunities. The objective is to create supportive social norms and realistic encouragement without imposing pressure, unrealistic comparison, or the assumption that entrepreneurship requires substantial family capital.

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4.2.4 Integrated Interpretation, Contribution, and Limitations

The joint explanatory power of the model (adjusted R^2 = .660) indicates that entrepreneurial intention among vocational students is associated with a configuration of educational, cognitive, and social conditions rather than with a single isolated determinant. Entrepreneurship education provides structured experience, entrepreneurial literacy provides interpretive and decision-making resources, and the family environment provides normative legitimacy and relational support. This integrated interpretation is consistent with reviews showing that entrepreneurship education and intention research has increasingly moved toward multilevel explanations involving pedagogical design, cognitive mechanisms, and contextual support (Nájera-Sánchez et al., 2023). It is also aligned with evidence from vocational education that entrepreneurial outcomes emerge through interconnected educational and psychological pathways (Wang et al., 2025).

Theoretically, the study complements rather than directly tests the Theory of Planned Behavior. Entrepreneurship education, entrepreneurial literacy, and the family environment should be interpreted as contextual antecedents that may shape attitudes, subjective norms, and perceived behavioral control. The results of Liao et al. (2022) and Liu et al. (2025) suggest that knowledge, self-efficacy, passion, and attitudes are plausible mechanisms connecting these contextual conditions to entrepreneurial intention. A stronger future model would therefore test a sequential structure in which educational and family factors influence the core TPB constructs, which subsequently explain intention and, ultimately, entrepreneurial action.

The relatively high explained variance should nevertheless be interpreted cautiously. All variables were measured through self-reports collected from the same respondents at one point in time, which may inflate observed associations through shared method and perceptual consistency. In addition, the predictors are conceptually related: students who evaluate entrepreneurship education positively may also report higher literacy and perceive stronger family support. The regression coefficients therefore represent unique statistical associations within this sample, not definitive causal effects or universally comparable rankings of importance.

Several limitations define the boundaries of the contribution. The single-school sample limits contextual generalization; the cross-sectional design cannot establish temporal ordering; and entrepreneurial intention was measured instead of subsequent venture behavior. This distinction is important because intention does not automatically become action, and the transition is influenced by implementation capability, resources, and environmental conditions (Kautonen et al., 2015; Shirokova et al., 2016). Future research should employ multi-school and longitudinal designs, include behavioral indicators such as venture initiation or sustained business-project participation, and test mediation through attitude, subjective norms, perceived behavioral control, entrepreneurial self-efficacy, and passion. Multigroup analyses by gender, socioeconomic status, digital competence, and family-business background would also clarify for whom and under what conditions the identified relationships are strongest.

5. Conclusion

Entrepreneurship education, entrepreneurial literacy, and the family environment each positively and significantly predicted the entrepreneurial intentions of Grade XI students at SMK Negeri 2 Tulungagung. Entrepreneurship education emerged as the strongest predictor, followed by entrepreneurial literacy and the family environment. Together, the three variables accounted for 66.0% of the variance in entrepreneurial intention.

These findings indicate that students' entrepreneurial career intentions are associated not only with individual aspirations but also with the quality of school-based learning, the depth of entrepreneurial knowledge, and the support available within the family. The study therefore contributes an integrated vocational-education perspective in which educational, cognitive, and social conditions operate as complementary contextual antecedents of entrepreneurial intention. Strengthening intention consequently requires an ecosystem approach rather than an isolated classroom intervention.

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6. Recommendation

Vocational schools should redesign entrepreneurship education around authentic and sustained venture-development experiences, including opportunity mapping, product prototyping, market validation, business-model design, financial management, digital marketing, and student business incubation. Entrepreneurial literacy should be monitored through competency-based assessment rather than course completion alone. Schools should establish structured family-engagement mechanisms, including parent entrepreneurship forums, mentoring by family-business owners, and collaborative student-enterprise projects. Education authorities should support teacher professional development, industry partnerships, small-scale seed-funding schemes, and access to digital business platforms. Future research should use multi-school, longitudinal, or experimental designs; directly measure the core TPB constructs; examine the transition from intention to behavior; and test mediating or moderating mechanisms such as entrepreneurial self-efficacy, creativity, peer support, prior entrepreneurial exposure, socioeconomic status, and digital competence.

Data availability

The data supporting the findings of this study are available from the corresponding author upon reasonable request, subject to institutional approval and the protection of participants' confidentiality.

Declaration of the use of artificial intelligence (AI)

Generative artificial intelligence was used solely to support language editing, clarity, and structural refinement. The authors reviewed and verified the entire manuscript and remain fully responsible for the study design, data analysis, interpretation, factual accuracy, and final text.

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References

Ajzen, I. (1991). The theory of planned behavior. *Organizational Behavior and Human Decision Processes*, 50(2), 179–211. https://doi.org/10.1016/0749-5978(91)90020-T

Bachmann, N., Rose, R., Maul, V., & Hölzle, K. (2024). What makes for future entrepreneurs? The role of digital competencies for entrepreneurial intention. *Journal of Business Research*, 174, Article 114481. https://doi.org/10.1016/j.jbusres.2023.114481

Bae, T. J., Qian, S., Miao, C., & Fiet, J. O. (2014). The relationship between entrepreneurship education and entrepreneurial intentions: A meta-analytic review. *Entrepreneurship Theory and Practice*, 38(2), 217–254. https://doi.org/10.1111/etap.12095

Bohlayer, C., & Gielnik, M. M. (2023). (S)training experiences: Toward understanding decreases in entrepreneurial self-efficacy during action-oriented entrepreneurship training. *Journal of Business Venturing*, 38(1), Article 106259. https://doi.org/10.1016/j.jbusvent.2022.106259

Carr, J. C., & Sequeira, J. M. (2007). Prior family business exposure as intergenerational influence and entrepreneurial intent: A theory of planned behavior approach. *Journal of Business Research*, 60(10), 1090–1098. https://doi.org/10.1016/j.jbusres.2006.12.016

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Chauhan, S., Chauhan, K., Singh, S., Mahlawat, S., Kumar, V., & Singh, S. (2024). Analyzing family support mediating role between motivational factors and sustainable entrepreneurial intentions: A study on university students. *Sustainable Technology and Entrepreneurship*, 3(3), Article 100076. https://doi.org/10.1016/j.stae.2024.100076

Clinton, E., Ahmed, F. U., Lyons, R., & O'Gorman, C. (2024). The drivers of family business succession intentions of daughters and the moderating effects of national gender inequality. *Journal of Business Research*, 184, Article 114876. https://doi.org/10.1016/j.jbusres.2024.114876

Criaco, G., Sieger, P., Wennberg, K., Chirico, F., & Minola, T. (2017). Parents' performance in entrepreneurship as a "double-edged sword" for the intergenerational transmission of entrepreneurship. *Small Business Economics*, 49(4), 841–864. https://doi.org/10.1007/s11187-017-9854-x

Edelman, L. F., Manolova, T., Shirokova, G., & Tsukanova, T. (2016). The impact of family support on young entrepreneurs' start-up activities. *Journal of Business Venturing*, 31(4), 428–448. https://doi.org/10.1016/j.jbusvent.2016.04.003

Hasan, M., Jannah, M., Supatminingsih, T., Ahmad, M. I. S., Sangkala, M., Najib, M., & Elpisah. (2024). Understanding the role of financial literacy, entrepreneurial literacy, and digital economic literacy on entrepreneurial creativity and MSMEs success: A knowledge-based view perspective. *Cogent Business & Management*, 11(1), Article 2433708. https://doi.org/10.1080/23311975.2024.2433708

Kautonen, T., van Gelderen, M., & Fink, M. (2015). Robustness of the theory of planned behavior in predicting entrepreneurial intentions and actions. *Entrepreneurship Theory and Practice*, 39(3), 655–674. https://doi.org/10.1111/etap.12056

Krueger, N. F., Jr., Reilly, M. D., & Carsrud, A. L. (2000). Competing models of entrepreneurial intentions. *Journal of Business Venturing*, 15(5–6), 411–432. https://doi.org/10.1016/S0883-9026(98)00033-0

Laspita, S., Breugst, N., Heblich, S., & Patzelt, H. (2012). Intergenerational transmission of entrepreneurial intentions. *Journal of Business Venturing*, 27(4), 414–435. https://doi.org/10.1016/j.jbusvent.2011.11.006

Liang, Y., Chen, R., Hong, H., Li, S., & Han, L. (2025). Shaping digital entrepreneurial intention in higher education: The role of entrepreneurship education, creativity, and digital literacy among Chinese university students. *Journal of Innovation & Knowledge*, 10(5), Article 100788. https://doi.org/10.1016/j.jik.2025.100788

Liao, Y.-K., Nguyen, V. H. A., & Caputo, A. (2022). Unveiling the role of entrepreneurial knowledge and cognition as antecedents of entrepreneurial intention: A meta-analytic study. *International Entrepreneurship and Management Journal*, 18(4), 1623–1652. https://doi.org/10.1007/s11365-022-00803-8

Lihua, D. (2022). An extended model of the theory of planned behavior: An empirical study of entrepreneurial intention and entrepreneurial behavior in college students. *Frontiers in Psychology*, 12, Article 627818. https://doi.org/10.3389/fpsyg.2021.627818

Liñán, F., & Chen, Y.-W. (2009). Development and cross-cultural application of a specific instrument to measure entrepreneurial intentions. *Entrepreneurship Theory and Practice*, 33(3), 593–617. https://doi.org/10.1111/j.1540-6520.2009.00318.x

Liu, Z., Zhang, M., Guo, Y., Mao, T., Deng, S., & Li, Y. (2025). Entrepreneurship education stimulates entrepreneurial intention of college students in China: A dual-pathway model. *The International Journal of Management Education*, 23(2), Article 101107. https://doi.org/10.1016/j.ijme.2024.101107

Nabi, G., Liñán, F., Fayolle, A., Krueger, N., & Walmsley, A. (2017). The impact of entrepreneurship education in higher education: A systematic review and research agenda. *Academy of Management Learning & Education*, 16(2), 277–299. https://doi.org/10.5465/amle.2015.0026

Nájera-Sánchez, J.-J., Pérez-Pérez, C., & González-Torres, T. (2023). Exploring the knowledge structure of entrepreneurship education and entrepreneurial intention. *International Entrepreneurship and Management Journal*, 19(2), 563–597. https://doi.org/10.1007/s11365-022-00814-5

Vol. 4, No 2: July 2026
E-ISSN: 2988-7798
pp. 114-125
Email:ije@skillerindonesia.com

Nguyen, P. N.-D., & Nguyen, H. H. (2024). Examining the role of family in shaping digital entrepreneurial intentions in emerging markets. *SAGE Open*, 14(1). https://doi.org/10.1177/21582440241239493

Otache, I., Edopkolor, J. E., Sani, I. A., & Umar, K. (2024). Entrepreneurship education and entrepreneurial intentions: Do entrepreneurial self-efficacy, alertness and opportunity recognition matter? *The International Journal of Management Education*, 22(1), Article 100917. https://doi.org/10.1016/j.ijme.2023.100917

Overwien, A., Jahnke, L., & Leker, J. (2024). Can entrepreneurship education activities promote students' entrepreneurial intention? *The International Journal of Management Education*, 22(1), Article 100928. https://doi.org/10.1016/j.ijme.2023.100928

Shirokova, G., Osiyevskyy, O., & Bogatyreva, K. (2016). Exploring the intention–behavior link in student entrepreneurship: Moderating effects of individual and environmental characteristics. *European Management Journal*, 34(4), 386–399. https://doi.org/10.1016/j.emj.2015.12.007

Song, Y., & Lu, G. (2024). The impact of university entrepreneurship support on college students' entrepreneurial intention: A cognitive-affective perspective. *The International Journal of Management Education*, 22(3), Article 101087. https://doi.org/10.1016/j.ijme.2024.101087

Sun, J., Shi, J., & Zhang, J. (2023). From entrepreneurship education to entrepreneurial intention: Mindset, motivation, and prior exposure. *Frontiers in Psychology*, 14, Article 954118. https://doi.org/10.3389/fpsyg.2023.954118

Thomas, O. (2023). Entrepreneurship education: Which educational elements influence entrepreneurial intention? *Industry and Higher Education*, 37(3), 328–344. https://doi.org/10.1177/09504222221121065

Thompson, E. R. (2009). Individual entrepreneurial intent: Construct clarification and development of an internationally reliable metric. *Entrepreneurship Theory and Practice*, 33(3), 669–694. https://doi.org/10.1111/j.1540-6520.2009.00321.x

Valdez-Juárez, L. E., & García Pérez-de-Lema, D. (2023). Creativity and the family environment, facilitators of self-efficacy for entrepreneurial intentions in university students: Case ITSON Mexico. *The International Journal of Management Education*, 21(1), Article 100764. https://doi.org/10.1016/j.ijme.2023.100764

Wang, F., Sahid, S., Radin A Rahman, R. S. A., Li, Z., & Wang, J. (2025). Exploring the determinants of entrepreneurial behavior among students in Chinese vocational colleges: A mediated and moderated model. *The International Journal of Management Education*, 23(3), Article 101290. https://doi.org/10.1016/j.ijme.2025.101290

Xu, J., Fu, Y., & Zhang, X. (2023). Does entrepreneurship education in China develop entrepreneurial intention? The role of self-efficacy and experience. *PLOS ONE*, 18(7), Article e0286090. https://doi.org/10.1371/journal.pone.0286090

