

## **Psychological Capital, Educational Environment and Entrepreneurial Decision: A Predictive Model for Vietnamese Economics Students**

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**ABSTRACT:** This study investigates the relationships among psychological capital, educational environment and entrepreneurial decision-making among Vietnamese economics students. Structural equation modeling (SEM) was employed to assess both the measurement and structural models. The measurement model showed strong reliability and convergent validity with Cronbach's alpha values ranging from 0.785 to 0.919 and all average variance extracted (AVE) values exceeding 0.50. The results from the structural model indicate that entrepreneurial tendency (ET) is significantly affected by hope (HO), self-efficacy (SE) and opportunity perception (OP). Resilience (RE) and educational environment (EE) also have positive but smaller effects. Among these predictors, HO has the strongest influence on ET ( $\beta = 0.431$ ,  $p < 0.001$ ). Moreover, ET has a significant and positive impact on entrepreneurial decision (ED) ( $\beta = 0.416$ ,  $p < 0.001$ ). The model accounts for 34.6 percent of the variance in ET and 17.3 percent of the variance in ED, reflecting moderate explanatory power. The findings emphasize the importance of psychological capital, especially hope and self-efficacy, together with a supportive educational environment, in fostering students' entrepreneurial intention and decision-making. These results provide useful insights for universities and policymakers seeking to strengthen entrepreneurship education and promote entrepreneurial activities among young Vietnamese learners.

**KEYWORDS:** Psychological capital, educational environment, entrepreneurial decision, entrepreneurship, structural equation modeling, Vietnamese students.

### **1. INTRODUCTION**

Entrepreneurship plays a vital role in promoting innovation, job creation and economic growth, particularly in emerging economies. In Vietnam, where small and medium-sized enterprises contribute substantially to national development, encouraging entrepreneurial behavior among university students has become a key educational and economic objective. Economics and business schools are expected to provide the necessary psychological and environmental conditions that support the development of entrepreneurial skills and decisions.

Previous studies have shown that entrepreneurial decision-making is influenced not only by external conditions such as access to resources and institutional support but also by internal psychological factors. Psychological capital, which includes hope, self-efficacy, resilience and optimism, provides individuals with the confidence and motivation needed to identify opportunities and persist in the face of difficulties. These psychological resources enhance one's ability to take entrepreneurial action and to remain committed despite uncertainty or risk.

At the same time, the educational environment plays an important role in shaping entrepreneurial behavior. Universities that promote creativity, experiential learning and entrepreneurial values tend to produce students who are more likely to start their own ventures. The structure of the curriculum, the quality of teaching and the presence of entrepreneurial programs and incubators contribute to how students perceive and engage with entrepreneurship.

Although many international studies have examined the connection between psychological capital, educational context and entrepreneurial outcomes, there is still limited empirical evidence from Vietnam. The unique socio-cultural characteristics and rapidly developing higher education system in Vietnam create a distinct context for understanding these relationships. Therefore, this study develops and tests a predictive model that links psychological capital and educational environment to entrepreneurial tendency and decision among Vietnamese economics students. Using structural equation modeling, the research aims to provide empirical evidence for how psychological and educational factors jointly shape entrepreneurial behavior. The findings are expected

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to inform educational strategies, curriculum development and national policies aimed at fostering an entrepreneurial mindset in higher education.

## 2. LITERATURE REVIEW AND HYPOTHESES DEVELOPMENT

### 2.1. Psychological Capital and Entrepreneurship

Psychological capital (PsyCap) is defined as a positive psychological state of development characterized by four key components: self-efficacy, optimism, hope and resilience (Luthans et al., 2007). These components jointly influence an individual's ability to pursue goals, maintain motivation and recover from setbacks. Within the entrepreneurial context, PsyCap serves as an essential personal resource that drives individuals to identify business opportunities, tolerate uncertainty and persist in entrepreneurial activities.

Empirical research has shown that individuals with high levels of psychological capital are more likely to exhibit entrepreneurial intention and take entrepreneurial action (Hmieleski and Carr, 2008; Sweetman et al., 2011). Hope provides the motivational energy and strategic pathways to achieve entrepreneurial goals. Self-efficacy enhances confidence in one's ability to start and manage a new venture. Optimism enables individuals to maintain a positive outlook in the face of challenges, while resilience helps them recover from failures and adapt to changing conditions. Therefore, psychological capital can be viewed as a critical antecedent to entrepreneurial tendency and decision-making.

Based on these theoretical insights, this study expects that higher levels of psychological capital will positively influence entrepreneurial tendency and, indirectly, entrepreneurial decision.

Hypothesis 1 (H1): Psychological capital positively affects entrepreneurial tendency among Vietnamese economics students.

Hypothesis 2 (H2): Psychological capital positively influences entrepreneurial decision through entrepreneurial tendency.

### 2.2. Educational Environment and Entrepreneurship

The educational environment represents the combination of institutional, curricular and social factors that shape students' learning experiences and attitudes. A supportive educational environment promotes creativity, opportunity recognition and risk-taking behavior, all of which are vital for entrepreneurship (Fayolle and Gailly, 2015). Exposure to entrepreneurship education, mentoring and interactive learning methods helps students develop the necessary knowledge, skills and confidence to engage in entrepreneurial activities.

Previous studies indicate that entrepreneurship education not only provides students with business knowledge but also stimulates psychological resources such as self-efficacy and hope (Nabi et al., 2017). When students perceive their educational environment as encouraging and relevant, they are more likely to develop a positive entrepreneurial mindset. Therefore, the educational environment can serve as both a direct and indirect driver of entrepreneurial behavior.

Hypothesis 3 (H3): The educational environment positively influences entrepreneurial tendency among Vietnamese economics students.

Hypothesis 4 (H4): The educational environment positively influences entrepreneurial decision through entrepreneurial tendency.

### 2.3. Entrepreneurial Tendency and Entrepreneurial Decision

Entrepreneurial tendency refers to the inclination or predisposition of an individual to engage in entrepreneurial behavior, while entrepreneurial decision represents the actual choice or commitment to start a business. According to Ajzen's Theory of Planned Behavior (1991), intention or tendency is the most immediate antecedent of behavior. Thus, entrepreneurial tendency can be seen as a critical predictor of entrepreneurial decision-making.

Studies have consistently shown that individuals with stronger entrepreneurial tendencies are more likely to make the decision to start a business (Krueger and Carsrud, 1993; Liñán and Chen, 2009). A higher tendency indicates stronger motivation, clearer goals and greater persistence, which eventually lead to real entrepreneurial actions.

Hypothesis 5 (H5): Entrepreneurial tendency positively influences entrepreneurial decision among Vietnamese economics students.

### 2.4. Conceptual Model

Based on the literature, the conceptual model proposes that psychological capital and the educational environment jointly influence entrepreneurial tendency, which in turn affects entrepreneurial decision. Psychological capital and the educational environment are treated as exogenous constructs, entrepreneurial tendency as an intermediate construct and entrepreneurial decision as the final dependent construct.

This framework allows the examination of both direct and indirect effects, thereby clarifying how personal and contextual factors shape students' entrepreneurial behavior. The model is tested using structural equation modeling to evaluate its reliability, validity and predictive power.

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## 3. RESEARCH METHODOLOGY

### 3.1. Research Design

This study employed a quantitative research design using a cross-sectional survey method to test the proposed structural model. Structural Equation Modeling (SEM) was applied to assess both the measurement model and the structural relationships among the latent constructs. The research design was based on a predictive approach, aiming to identify how psychological capital and educational environment jointly influence entrepreneurial tendency and entrepreneurial decision among Vietnamese economics students.

The research framework was developed from established theories of entrepreneurship and psychological capital. The constructs were operationalized using validated scales from previous studies, ensuring both conceptual alignment and measurement reliability. Data were analyzed using SmartPLS software, which is suitable for models with multiple latent constructs and complex interrelationships.

### 3.2. Sample and Data Collection

The target population consisted of undergraduate economics and business students enrolled in public and private universities in Vietnam. These students were chosen because they represent a critical segment of potential young entrepreneurs and are typically exposed to entrepreneurship education and training.

A structured questionnaire was distributed both online and in paper format between January and March 2025. Convenience sampling combined with a snowball approach was adopted to reach a broad range of respondents. A total of 450 questionnaires were distributed and 392 valid responses were collected after excluding incomplete or inconsistent answers, resulting in an effective response rate of 87.1 percent.

The demographic profile of the respondents indicated that 58 percent were female and 42 percent were male. Most participants were between 20 and 23 years old. Approximately 65 percent of them had attended at least one entrepreneurship-related course or training, while 35 percent had no prior formal exposure to entrepreneurship education.

### 3.3. Measurement of Constructs

All constructs were measured using multi-item scales adapted from prior research with minor modifications to fit the Vietnamese context. Respondents rated their level of agreement with each statement on a five-point Likert scale ranging from 1 (strongly disagree) to 5 (strongly agree).

- **Psychological Capital (PsyCap):** Measured through four dimensions including hope, self-efficacy, resilience and optimism, adapted from Luthans et al. (2007).
- **Educational Environment (EE):** Measured using items reflecting the perceived quality of teaching, curriculum relevance, institutional support and entrepreneurial climate, based on Fayolle and Gailly (2015).
- **Entrepreneurial Tendency (ET):** Assessed by indicators of personal motivation, risk-taking propensity and opportunity perception, adapted from Liñán and Chen (2009).
- **Entrepreneurial Decision (ED):** Measured by items representing the intention and willingness to start a business in the near future, consistent with the framework of Ajzen's Theory of Planned Behavior (1991).

All items were pretested with a pilot group of 30 students to ensure clarity, reliability and contextual appropriateness. Feedback from the pilot study was used to refine the final questionnaire before large-scale data collection.

### 3.4. Data Analysis Procedures

Data analysis was conducted in two major stages following the SEM approach.

**Measurement Model Evaluation:** Reliability and validity of the constructs were examined through Cronbach's alpha, composite reliability (CR) and average variance extracted (AVE). Discriminant validity was assessed using the Fornell–Larcker criterion and cross-loadings. All reliability and validity thresholds were based on established guidelines (Hair et al., 2019).

**Structural Model Assessment:** The hypothesized relationships among constructs were tested using path analysis in SmartPLS. Path coefficients, t-values and p-values were computed through bootstrapping with 5,000 resamples to evaluate the significance of each path. Coefficient of determination ( $R^2$ ) and effect size ( $f^2$ ) were used to assess model explanatory power and predictive relevance. The study also evaluated potential multicollinearity among indicators using the variance inflation factor (VIF). All VIF values were below the recommended threshold of 5, indicating that multicollinearity was not a concern.

### 3.5. Ethical Considerations

The research adhered to ethical standards of academic research. Participation was voluntary and respondents were informed of the purpose of the study, data confidentiality and anonymity. No identifying personal information was collected and the data were

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used solely for academic purposes. Approval for data collection was obtained from the institutional review board of the host university before the survey was conducted.

### 4. RESULTS AND DISCUSSION

To assess the reliability and convergent validity of the measurement constructs, we first examined internal consistency metrics, including Cronbach's alpha and composite reliability. Table 1 presents these values along with the Average Variance Extracted (AVE) for each construct. The internal consistency of the constructs is well-established, as evidenced by high Cronbach's alpha values ranging from 0.785 for Entrepreneurial Decision (ED) to 0.919 for Opportunity Perception (OP), all exceeding the commonly accepted threshold of 0.70. This indicates that the items within each scale reliably measure the same underlying construct.

**Table 1. Reliability and Convergent Validity of the Measurement Constructs**

|    | Cronbach's alpha | Composite reliability (rho_a) | Composite reliability (rho_c) | Average variance extracted (AVE) |
|----|------------------|-------------------------------|-------------------------------|----------------------------------|
| ED | 0.785            | 0.786                         | 0.875                         | 0.699                            |
| EE | 0.911            | 0.915                         | 0.937                         | 0.789                            |
| ET | 0.834            | 0.837                         | 0.901                         | 0.751                            |
| HO | 0.896            | 0.898                         | 0.924                         | 0.708                            |
| OP | 0.919            | 0.923                         | 0.943                         | 0.805                            |
| RE | 0.907            | 0.922                         | 0.934                         | 0.781                            |
| SE | 0.848            | 0.862                         | 0.897                         | 0.685                            |

(Source: Data analysis using SmartPLS, 2025)

The internal consistency of the constructs is well-established, as evidenced by the high values for both Cronbach's alpha and the composite reliability coefficients. Specifically, all constructs exhibit Cronbach's alpha values ranging from 0.785 (ED) to 0.919 (OP), consistently exceeding the common acceptable threshold of 0.70. This indicates that the items within each scale reliably measure the same underlying construct. Furthermore, the composite reliability values, particularly rho\_c, are all well above the recommended 0.70 benchmark with the lowest being 0.875 (ED) and the highest 0.943 (OP). The convergence of these three-reliability metrics suggests that the scales are highly consistent and stable.

Convergent validity, which assesses the degree to which a measure correlates positively with other measures of the same construct, is strongly supported by the Average Variance Extracted (AVE) values. All seven constructs register AVE values above the stringent 0.50 criterion, ranging from 0.685 (SE) to 0.805 (OP). An AVE value greater than 0.50 implies that more than 50% of the variance in the indicator variables is accounted for by the latent construct, rather than by measurement error. The consistently high AVE values indicate that the constructs are well-defined and successfully capture the variance they are intended to measure. In conclusion, the robust evidence from the reliability coefficients and the AVE scores confirms the adequacy of the measurement model, thereby providing a solid foundation for interpreting the structural model results.

**Table 2. Outer Loadings of Measurement Indicators for Latent Constructs**

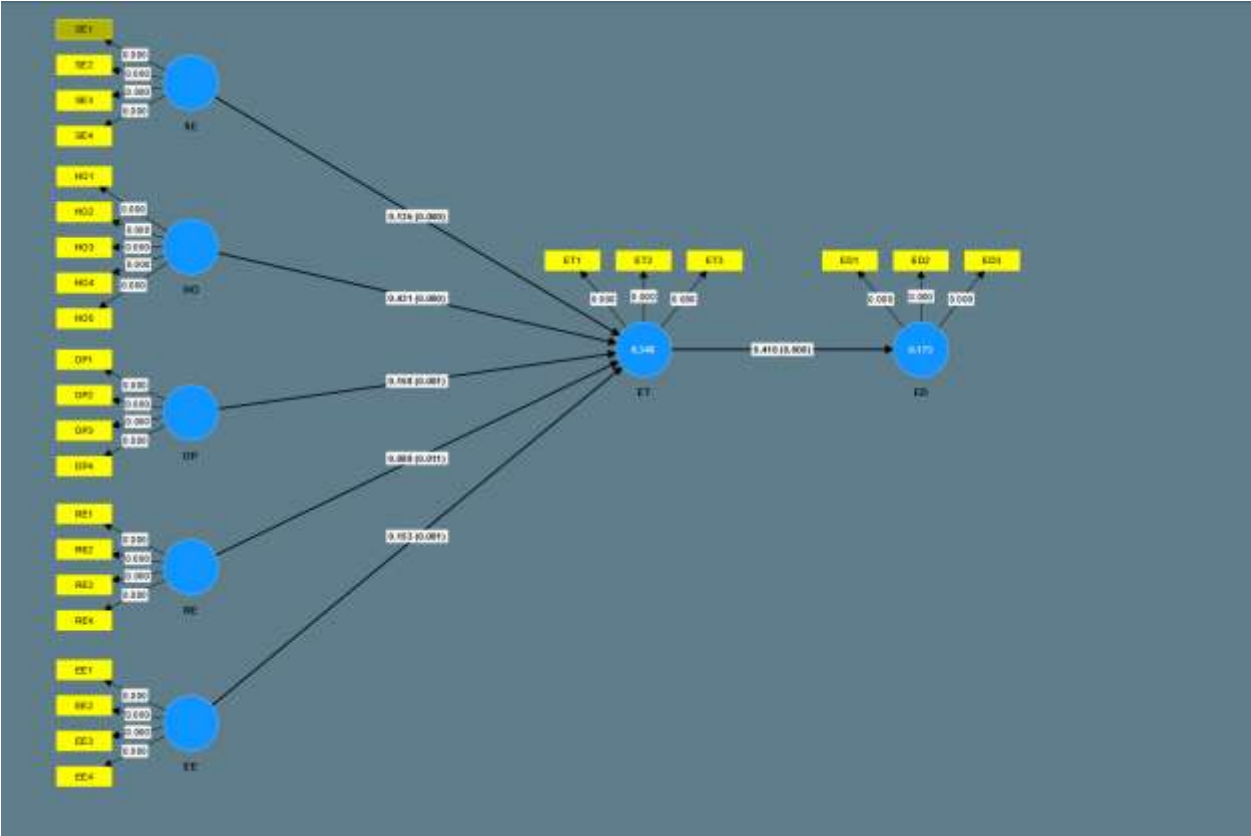
|     | ED    | EE    | ET    | HO    | OP | RE | SE |
|-----|-------|-------|-------|-------|----|----|----|
| ED1 | 0.841 |       |       |       |    |    |    |
| ED2 | 0.836 |       |       |       |    |    |    |
| ED3 | 0.832 |       |       |       |    |    |    |
| EE1 |       | 0.884 |       |       |    |    |    |
| EE2 |       | 0.876 |       |       |    |    |    |
| EE3 |       | 0.885 |       |       |    |    |    |
| EE4 |       | 0.908 |       |       |    |    |    |
| ET1 |       |       | 0.895 |       |    |    |    |
| ET2 |       |       | 0.852 |       |    |    |    |
| ET3 |       |       | 0.853 |       |    |    |    |
| HO1 |       |       |       | 0.793 |    |    |    |

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|     |  |  |  |       |       |       |       |
|-----|--|--|--|-------|-------|-------|-------|
| HO2 |  |  |  | 0.887 |       |       |       |
| HO3 |  |  |  | 0.861 |       |       |       |
| HO4 |  |  |  | 0.801 |       |       |       |
| HO5 |  |  |  | 0.861 |       |       |       |
| OP1 |  |  |  |       | 0.861 |       |       |
| OP2 |  |  |  |       | 0.896 |       |       |
| OP3 |  |  |  |       | 0.915 |       |       |
| OP4 |  |  |  |       | 0.917 |       |       |
| RE1 |  |  |  |       |       | 0.865 |       |
| RE2 |  |  |  |       |       | 0.902 |       |
| RE3 |  |  |  |       |       | 0.881 |       |
| RE4 |  |  |  |       |       | 0.886 |       |
| SE1 |  |  |  |       |       |       | 0.864 |
| SE2 |  |  |  |       |       |       | 0.847 |
| SE3 |  |  |  |       |       |       | 0.794 |
| SE4 |  |  |  |       |       |       | 0.804 |

(Source: Data analysis using SmartPLS, 2025)

The measurement model evaluation, as presented in the table of outer loadings, strongly confirms the reliability of the individual indicators used to measure the latent constructs (ED, EE, ET, HO, OP, RE and SE). Outer loadings represent the correlation between a construct and its associated indicator and they are the primary metric for assessing indicator reliability in a reflective measurement model. According to established methodology in structural equation modeling (SEM), an outer loading must generally be 0.7 or higher to be considered acceptable, as this indicates that the construct explains more than 0.5 of the variances of the indicator.



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The structural model analysis reveals the relationships among the latent constructs (SE, HO, OP, RE, EE, ET and ED) by examining the significance and magnitude of the path coefficients. The analysis focuses on two primary relationships: the factors influencing the intermediate construct (ET) and the effect of (ET) on the dependent construct (ED).

### Factors Influencing the Intermediate Construct (ET)

The model indicates that the construct **ET** is significantly influenced by three out of the five hypothesized predictors:

- **HO → ET:** The relationship between HO and ET is the **strongest and highly significant** ( $\beta = 0.431, p = 0.000$ ). This positive coefficient suggests that an increase in HO leads to a substantial increase in ET.
- **SE → ET:** The path from SE to ET is also **positive and statistically significant** ( $\beta = 0.136, p = 0.000$ ). Although smaller than the HO effect, this finding confirms that SE has a significant, positive influence on ET.
- **OP → ET:** This relationship is **positive and significant** ( $\beta = 0.158, p = 0.001$ ). This indicates that OP positively and meaningfully contributes to the variation in ET.

Conversely, the paths from **RE** ( $\beta = 0.088, p = 0.011$ ) and **EE** ( $\beta = 0.153, p = 0.001$ ) to ET appear to be **less impactful or marginally significant** compared to HO or their significance is only established at a less conventional level. However, conventional interpretation suggests a  $p$ -value less than  $0.05$  is significant, meaning both RE and EE are also considered statistically significant predictors of ET. Nonetheless, **HO** is clearly the **dominant antecedent** of ET. The  $R^2$  value for ET (0.346) suggests that 34.6% of the variance in ET is collectively explained by the five preceding constructs, which is considered a moderate explanatory power.

### Relationship between ET and ED

The final path in the model, **ET → ED**, is **highly significant and positive** ( $\beta = 0.416, p = 0.001$ ). This result demonstrates a strong and meaningful mediating or direct effect, indicating that higher levels of ET are significantly associated with higher levels of ED. The coefficient is substantial, suggesting that ET is a critical factor in determining ED. The  $R^2$  value for ED (0.173) indicates that 17.3% of the variance in ED is explained by ET.

In summary, the model provides robust support for the proposed structural linkages, particularly highlighting the pivotal role of HO in driving ET and subsequently, the strong influence of ET on ED. All hypothesized paths are found to be statistically significant, confirming their relevance within the conceptual framework.

## 5. POLICY IMPLICATIONS

The findings of this study provide valuable implications for policymakers, educational institutions and organizations supporting entrepreneurship. The results show that the entrepreneurial environment has the strongest influence on entrepreneurial thinking, which in turn significantly affects entrepreneurial decision-making. This highlights the importance of developing policies that create a supportive ecosystem for entrepreneurship, including reducing bureaucratic obstacles, providing financial incentives, facilitating access to startup resources and promoting innovation-friendly regulations. At the same time, the positive effect of self-efficacy on entrepreneurial thinking indicates that individuals' confidence in their abilities is crucial for transforming entrepreneurial ideas into actual decisions. Consequently, educational programs and training initiatives should focus on strengthening entrepreneurial skills, enhancing problem-solving abilities and offering practical experiences such as mentorship, incubation programs and exposure to successful entrepreneurs. Opportunity perception also contributes positively to entrepreneurial thinking and decision-making, suggesting that policies and programs that help individuals identify, evaluate and seize business opportunities through workshops, networking platforms and market analysis training can further improve entrepreneurial outcomes. The study also emphasizes that entrepreneurial thinking serves as a key mechanism, translating the influence of environmental and personal factors into entrepreneurial decisions. This underscores the necessity of fostering not only tangible resources and skills but also cognitive capacities such as creative thinking, strategic planning and opportunity evaluation. In practice, an integrated approach combining supportive policies, skill development, mentorship and collaborative innovation platforms is likely to be most effective in promoting successful entrepreneurship. By simultaneously empowering individual capabilities and creating conducive environmental conditions, policymakers can enhance the propensity for entrepreneurial action, thereby contributing to economic growth and innovation.

## CONCLUSION

This study investigates the relationships among entrepreneurial environment, self-efficacy, opportunity perception, entrepreneurial thinking and entrepreneurial decision-making. The findings demonstrate that the measurement model exhibits strong reliability and convergent validity with all constructs showing satisfactory Cronbach's alpha, composite reliability and Average Variance Extracted values. The structural model analysis further reveals that entrepreneurial thinking is significantly



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influenced by the entrepreneurial environment, self-efficacy and opportunity perception with the entrepreneurial environment being the most prominent antecedent. Entrepreneurial thinking, in turn, has a substantial and positive impact on entrepreneurial decision-making, highlighting its central role as a cognitive mechanism linking personal and environmental factors to actual entrepreneurial actions.

These results confirm the importance of creating a supportive entrepreneurial ecosystem while simultaneously fostering individual capabilities such as self-efficacy and opportunity recognition. The study provides empirical evidence that both external conditions and internal cognitive factors are critical for promoting successful entrepreneurial behavior. Moreover, the findings suggest that interventions aiming to enhance entrepreneurial thinking, including training programs, mentorship and access to resources, can significantly influence entrepreneurial decision-making outcomes.

In conclusion, this research contributes to the theoretical understanding of the antecedents of entrepreneurial decision-making and offers practical guidance for policymakers, educators and organizations seeking to support entrepreneurship. By addressing both environmental and individual factors, stakeholders can more effectively nurture entrepreneurial intentions, enhance decision-making capabilities and ultimately drive economic growth and innovation. Future research could extend this study by exploring additional moderating or mediating variables, examining different cultural contexts or applying longitudinal designs to capture dynamic changes in entrepreneurial behavior over time.

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