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Unpacking Student Entrepreneurial Success: The Strategic Role of Entrepreneurial Character and Organizational Culture

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Abstract: Unpacking Student Entrepreneurial Success: The Strategic Role of Entrepreneurial Character and Organizational Culture. **Objective**: High entrepreneurial orientation does not guarantee student entrepreneurial success, particularly in Global South contexts, where institutional resource gaps and neglected learning mechanisms often undermine entrepreneurial outcomes. This study fills the gap by integrating the Resource-Based View and Entrepreneurial Learning Theory to explain how entrepreneurial orientation impacts student entrepreneurial success within the Indonesian higher education ecosystems. **Method**: A quantitative approach, employing a cross-sectional survey design, was utilised, with Likert-scale questionnaires distributed to purposively selected student entrepreneurs. Moderating Partial Least Squares Structural Equation Modeling was applied to analyse data from 180 respondents, examining both direct and moderating effects. **Result**: The findings show that entrepreneurial orientation has a significant impact on entrepreneurial success, emphasizing the strategic role as a valuable intangible resource. Among all moderating effects tested, Organizational Culture exerts the most decisive impacts (â = 0.277), compared to Entrepreneurial Characteristics (â = 0.215), underscoring how embedded cultural values critically shape the potency of entrepreneurial orientation on student success. Entrepreneurial characteristics, such as confidence, perseverance, and innovativeness, positively influence outcomes by strengthening entrepreneurial capabilities through learning processes. Organizational culture also emerges as a critical factor shaping entrepreneurial achievements. Notably, interaction effects show that entrepreneurial characteristics and organizational culture significantly moderate the relationship between entrepreneurial orientation and business performance. **Conclusion**: This study advances theoretical insights by integrating the Resource-Based View and Entrepreneurial Learning Theory. It conceptualises learning as a capability-based mechanism through which internal resources are activated, configured, and deployed, transforming entrepreneurial orientation into actionable competencies that foster student success in constrained institutional settings. This approach offers practical implications for universities seeking to cultivate effective entrepreneurial ecosystems in emerging economies.

Keywords: student entrepreneurship, entrepreneurial orientation, organizational culture, emerging economies, higher education, resource-based view, entrepreneurial learning theory.

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INTRODUCTION

Entrepreneurship education in Indonesia's tertiary education system has become a strategic policy response to escalating global challenges such as unemployment, labor market instability, and the urgent need to promote economic self-reliance among younger generations (Amalia & Von Korflesch, 2021). The government

acknowledges the crucial role of entrepreneurship as a catalyst for economic development, targeting at least 4% of the national population to actively participate in entrepreneurial endeavors as part of the national entrepreneurship movement (Ministry of Cooperatives and SMEs, 2022). Within this policy orientation, universities are envisioned as innovation ecosystems that bridge academic knowledge with societal and market demands (Thottoli et al., 2024). However, despite these strategic initiatives, structural and pedagogical constraints persistently undermine the efficacy of entrepreneurship education. Specifically, the current curricula often fail to adapt to the evolving demands of modern business and industry (Elpisah et al., 2024). For example, entrepreneurship learning is limited to two semester credit units and focuses solely on theory, resulting in very minimal opportunities for practical experience and engagement (Ou & Kim, 2025). As a result, classroom-based learning approaches are unable to effectively cultivate a resilient entrepreneurial mindset (Hutasuhut et al., 2024).

Given these recurring limitations, it is crucial to reassess the prevailing educational paradigms critically. In particular, the persistence of theory-heavy yet pedagogically ineffective interventions in entrepreneurship courses highlights the need for a more integrated, learner-centred, and capability-driven approach to entrepreneurship education. Entrepreneurial Learning Theory (ELT) offers a critical lens: it posits that entrepreneurship education must extend beyond the transmission of abstract knowledge and instead be conceptualized as an iterative, experiential, and socially constructed learning process through which individuals develop entrepreneurial competencies that remain adaptive under volatile business conditions (Motta & Galina, 2023; Costa et al., 2024). This position is reinforced by recent studies showing that learning anchored in reflection, critical sense-making, and real-world experimentation is essential for cultivating entrepreneurial self-efficacy and resilience (Anton & Mansingh, 2025; Ndlovu et al., 2025). In response, the Ministry of Science, Technology, and Higher Education has promoted several flagship initiatives, including the Student Entrepreneurship Development Program, the Student Creativity Program, and university-based business incubators, designed to generate authentic, practice-oriented learning experiences. However, the implementation of these extracurricular interventions frequently remains weakly integrated with formal academic structures, limiting their cumulative pedagogic impact (Pannen, 2018; Oswal et al., 2025). The gap between policy intention and realized learning outcomes is also reflected in empirical indicators. For instance, the Global Entrepreneurship Monitor reported that nearly 70% of young entrepreneurs felt their university education did not adequately prepare them for entrepreneurial careers (Global Entrepreneurship Monitor, 2020). This finding is especially concerning given the longstanding evidence that experiential learning significantly enhances students' ability to launch ventures and navigate uncertainty (Nabi et al., 2017).

Entrepreneurship education is a comprehensive process encompassing the development of values, attitudes, competencies, and knowledge aimed at fostering entrepreneurial orientation, personal traits, and organizational culture (Ghassani et al., 2020; Mulyana & Hendar, 2020). This approach is well articulated by Entrepreneurial Learning Theory, which provides an integrative framework for understanding how individuals assimilate prior experiences, reinterpret failures, and progressively construct entrepreneurial identities (Lamine et al., 2025; Lång et al., 2025). Within this context, students' entrepreneurial orientation recognized as a critical intangible resource shapes decision-making by promoting innovativeness,

risk-taking, and proactivity. Such orientation is cultivated through experiential learning strategies, including field practice, business simulations, and project-based activities that demand creativity in navigating uncertain and ambiguous business environments (Ridwan et al., 2025). Empirical evidence consistently demonstrates that entrepreneurial orientation exerts a significant influence on business performance, encompassing both financial and non-financial outcomes (Jamai et al., 2023; Fatoki, 2019; Martins & Perez, 2025).

Entrepreneurial organizational culture influences students' business behaviour by instilling values and norms that foster collaboration, innovation, and individual accountability (Ghassani et al., 2020). An adaptive culture is pivotal for strengthening strategic partnerships and enhancing competitiveness in increasingly dynamic environments (Anning-Dorson, 2021), while also sustaining innovation trajectories over time (Sinha & Dhall, 2020). Moreover, organizational cultures that respond effectively to technological shifts and evolving market conditions have been empirically linked to improved business performance among nascent entrepreneurs (Le et al., 2020). In parallel, entrepreneurial characteristics such as innovativeness, risk-taking, proactiveness, achievement orientation, self-efficacy, and psychological resilience—constitute critical individual-level resources that mobilize effective entrepreneurial action (Atiya & Osman, 2021; Sarwoko & Nurfarida, 2021; Liu et al., 2023; Pandey et al., 2023; Bodolica et al., 2024; Elegunde et al., 2024). Consistent with the Resource-Based View (RBV), these attributes can be conceptualized as valuable, rare, inimitable, and non-substitutable (VRIN) resources that contribute to sustainable competitive advantage (Barney, 1991; Barney et al., 2011). Extending this logic, recent scholarship has applied RBV to entrepreneurship education, arguing for the integration of individual competencies and cultural assets to enhance venture performance (Cai & Ahmad, 2021; Wales et al., 2023).

The entrepreneurial ecosystem in Semarang and the broader Central Java region exhibits distinct institutional and cultural characteristics that shape the interaction between individual and organizational factors (Phelps & Wijaya, 2024; Supramono et al., 2025). Regional initiatives, such as youth entrepreneurship counseling programs, provide structured support to student entrepreneurs through funding and mentorship. Leading universities, including Diponegoro University and Semarang State University, also engage students in business incubators to foster experiential learning (Wibowo et al., 2023; Adam et al., 2024; Raharjo et al., 2024). This ecosystem is further influenced by Javanese socio-cultural values such as guyub (communal harmony) and nrimo (acceptance), which shape entrepreneurial behavior—encouraging collaboration yet potentially constraining assertive risk-taking (Fahmi & Savira, 2023; Irjayanti & Lord, 2024). These local dynamics produce a complex entrepreneurial landscape that remains underexplored within dominant theoretical frameworks.

Based on a review of the existing literature, several critical gaps are revealed that warrant further investigation. First, there is a noticeable paucity of research examining individual entrepreneurial characteristics and entrepreneurial organizational culture as moderating variables within the Resource-Based View (RBV) framework (Barney, 1991).. Second, core intangible resources, such as self-efficacy and resilience, remain conceptually underdeveloped in terms of their influence on the performance outcomes of entrepreneurial orientation (Tu et al., 2016; Prihadi et al., 2021). Third, prevailing studies frequently adopt a linear approach that neglects the reinforcing dynamics of internal

resources (Wales et al., 2023). These gaps call for a dynamic, interactionist, and context-sensitive lens. Although recent work (e.g., Wales et al., 2023) has explored RBV microfoundations, it remains firm-centric. It overlooks the interaction between psychological resources and institutional constraints, particularly in universities in the Global South. This study offers a capability-based framework, positioning entrepreneurial learning as the mechanism through which self-efficacy, resilience, and failure learning evolve into actionable competencies (Yamamura & Lassalle, 2025; Yue et al., 2025). Additionally, while entrepreneurial organizational culture represents a potentially valuable organizational resource, its role in student-led ventures has received limited scholarly attention (Ling et al., 2020). Recent systematic reviews confirm this oversight. For instance, Nabi et al. (2017) and Ndlovu et al. (2025) emphasise pedagogical and individual-level factors, yet under-theorise how organizational norms and routines shape student entrepreneurship. This conceptual lacuna is especially salient in Global South universities, where rigid institutional cultures may suppress entrepreneurial agency—highlighting the need to reposition organizational culture as a central, dynamic component within entrepreneurship education ecosystems. Accordingly, this study aims to address these gaps by examining how entrepreneurial characteristics and organizational culture moderate the relationship between student entrepreneurial orientation and venture performance. By integrating Entrepreneurial Learning Theory with the Resource-Based View, this research highlights a novel conceptual framework that enriches theoretical comprehension of the collaborative impact of adaptive learning processes and internal resources on entrepreneurial outcomes. Practically, the findings are expected to inform entrepreneurship education and policy, leveraging students' unique characteristics and cultural contexts to enhance sustainable performance. Accordingly, this study aims to address the following research questions: (1) To what extent do entrepreneurial orientation, individual entrepreneurial characteristics, and organizational culture predict entrepreneurial success among student-led ventures? (2) How does the interaction between entrepreneurial orientation and entrepreneurial characteristics shape entrepreneurial success? (3) Does entrepreneurial organizational culture moderate the relationship between entrepreneurial orientation and entrepreneurial success?

METHOD

Participant

The population of this study consisted of all active students involved in student entrepreneurship organisations (Entrepreneurship Student Units/UKM Kewirausahaan and similar associations) in Semarang City, spread across seven private and four public universities. Based on preliminary data from 2024, 1,225 active students managed business units either formally or informally. Considering the research objective to examine theoretically the relationship based on actual entrepreneurial experiences purposive sampling was employed, using inclusion criteria limited to students who had actively managed a business unit for at least the past six months. The inverse square root method (Kock & Hadaya, 2018) determined a minimum sample size of 160.

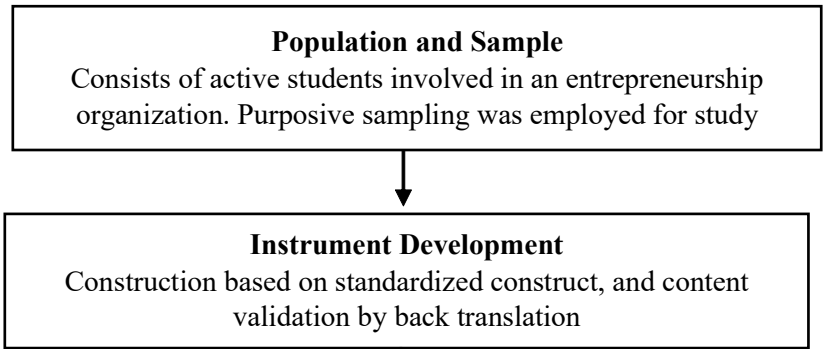
We use purposive sampling to ensure that respondents meet the inclusion criteria, focusing on students who have operated a business unit for at least six months, consistent with Marchand et al. (2015) and Staniewski and Szopiński (2015). The use of purposive sampling is more appropriate than random sampling in this context, as it allows for the selection of participants who have empirical and conceptual relevance to the research constructs, especially when testing the dynamics of experiential entrepreneurship

capabilities (Palinkas et al., 2015; Staniewski & Szopiñski, 2015; Sarstedt et al., 2022). This approach also supports enhanced construct validity in practice-based studies where behavioral heterogeneity among entrepreneurs constitutes a central element (Saunders et al., 2019). To mitigate potential selection bias, the inclusion criteria were verified through entrepreneurship advisors at each institution, ensuring variability in the types of businesses, university origins, and demographic backgrounds (including gender, age, and education level).

A total of 320 students meeting the inclusion criteria were contacted through coordination with UKM administrators and entrepreneurship advisors. Of these, 200 students agreed to participate by completing an online questionnaire. After data validation and response completeness checks, 180 questionnaires were deemed suitable for analysis (a valid response rate of 90%). Non-response bias testing was conducted by comparing initial and final respondent characteristics using t-tests and chi-square tests, which indicated no significant differences ($p > 0.05$), suggesting that response bias was minimal. All research procedures were approved by the Research Ethics Committee of Universitas Negeri Semarang under decision number: No. 122/KEPK/UNNES/2024. Participation in the study was voluntary, and all respondents provided written informed consent via consent forms included with the questionnaire instruments.

Research Design and Procedures

This study employs a quantitative research design, utilising a cross-sectional survey method, to investigate the impact of entrepreneurial orientation on entrepreneurial success, with a focus on the moderating roles of individual entrepreneurial characteristics and organizational culture. This approach is appropriate for examining causal relationships within a single time frame and is particularly relevant for investigating the dynamics of students' entrepreneurial behavior (Bryman, 2021). Data were collected from May to December 2024 with the support of entrepreneurship lecturers from purposively selected higher education institutions. The sampling strategy was designed to ensure contextual relevance, particularly by capturing the diversity of entrepreneurial experiences across different universities. The survey instrument was developed using standardized measurement constructs and underwent expert content validation and preliminary reliability testing to ensure conceptual clarity and psychometric robustness. Data analysis employed Partial Least Squares Structural Equation Modeling (PLS-SEM), following methodological guidelines by Hair et al. (2022) and Sarstedt et al. (2022). This technique was selected due to the complexity of the proposed model, the presence of non-normal data distribution, and the relatively small sample size.



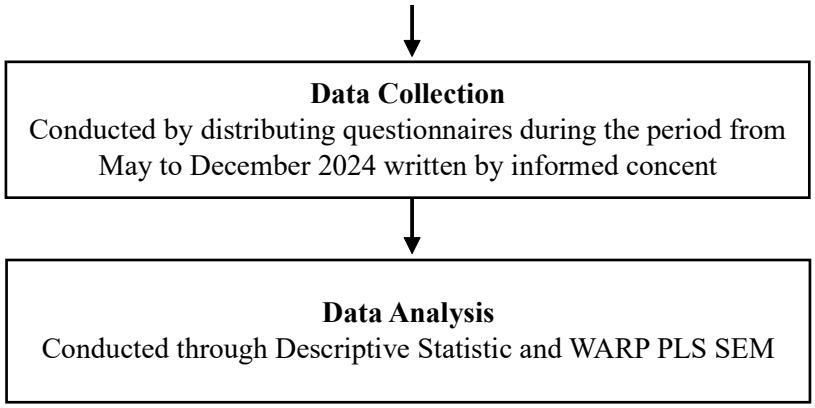


Figure 1. Research design flowchart

Instrument

The research instrument was adapted from previously validated English-language questionnaires and refined through a rigorous back-translation process and expert review to ensure linguistic accuracy and content equivalence. Content validity was assessed using the Content Validity Index (CVI), with all items exceeding the recommended threshold of 0.80, indicating satisfactory content representativeness (Goyal et al., 2020; Kalkbrenner, 2021). Several procedural remedies were implemented to mitigate the common method bias inherent in self-reported survey data, including ensuring respondent anonymity, psychologically separating measurement contexts, and randomising item order. Additionally, Harman's single-factor test and the marker variable technique were conducted post hoc, confirming that no single latent factor accounted for the majority of variance, thereby supporting the robustness of the data against common method variance (Podsakoff et al., 2012).

Measurement of variables relied on established scales with demonstrated validity and adequate psychometric properties, as established in prior research. Entrepreneurial success was operationalized using indicators adapted from Wiklund and Shepherd (2005), Gupta and Batra (2016), and Kraus et al. (2020), incorporating subjective self-reported measures such as sales volume, production output, operating profit, business growth, and business development. The scale demonstrated satisfactory reliability, with Cronbach's alpha values exceeding 0.78. Entrepreneurial orientation was assessed using a multidimensional scale adapted from Gorostiaga et al. (2019), covering innovativeness, risk-taking, proactiveness, competitiveness, achievement orientation, learning orientation, and autonomy, with a Cronbach's alpha of 0.76. Entrepreneurial characteristics were measured through a composite scale encompassing the Big Five personality traits, locus of control, need for achievement, general self-efficacy, and tolerance of ambiguity, consistent with Lang and Fries (2006), Saptadjaya and Gunawan (2020), and Husna and Akmal (2020), demonstrating a Cronbach's alpha of 0.78. Finally, entrepreneurial organizational culture was measured using the Organizational Culture Assessment Instrument (OCAI) developed by Cameron and Quinn (2006), which profiles cultural types across six dimensions. Although initially applied to formal organisations, OCAI is theoretically and empirically suitable for student-led ventures, capturing the emergent values, leadership dynamics, and shared orientation that shape early-stage organizational identity. Its structured framework enables the diagnosis of formative cultural patterns that influence coordination and entrepreneurial behaviour (Sansone et al., 2021;

Shiferaw et al., 2023). In nascent ventures, OCAI provides a valuable lens into evolving team norms and a collective entrepreneurial vision (Rasmussen et al., 2024).

Data Analysis

Descriptive statistics were derived using index scores computed with the Five-Box Method (Ferdinand, 2016). Measurement model evaluation incorporated convergent validity through factor loadings and Average Variance Extracted (AVE), with loadings above 0.60 and AVE values exceeding 0.50 deemed acceptable (Henseler et al., 2014). Composite reliability was used to assess internal consistency, targeting values of 0.70 or higher. Inferential analyses were conducted using WarpPLS version 8, following established procedures including model specification, path diagram construction, resampling via bootstrapping, and estimation of structural paths with significance testing based on t-statistics and p-values (Kock, 2010). WarpPLS was specifically chosen over other PLS-SEM software (e.g., SmartPLS) due to its unique capability to model non-linear relationships and its robust handling of suppression effects and multicollinearity, which are critical in the current study given the hypothesised complex interactions among latent constructs. Moreover, WarpPLS provides advanced fit indices (e.g., Tenenhaus GoF, APC, ARS, and AARS) and supports both reflective and formative constructs with high algorithmic stability, thereby aligning well with the epistemological and methodological orientation of this research (Kock & Hadaya, 2018; Kock, 2024).

RESULT AND DISCUSSION

Understanding the dynamics of entrepreneurship among university students necessitates analysing the dimensions that shape their entrepreneurial orientation and venture success. Evaluating entrepreneurial orientation, personal entrepreneurial characteristics, and organizational culture in student-run enterprises is crucial for identifying strengths and areas for development. Entrepreneurial orientation embodies innovativeness, proactiveness, and risk-taking. Entrepreneurial characteristics encompass personality traits and psychological capacities that enable individuals to address business challenges. Organizational culture reflects the values, leadership styles, and management practices that shape the business environment. Entrepreneurial success is characterized by tangible outcomes, as measured by financial performance and growth. Figure 2 provides a quantitative description of each variable, based on average scores derived from empirical field assessments.

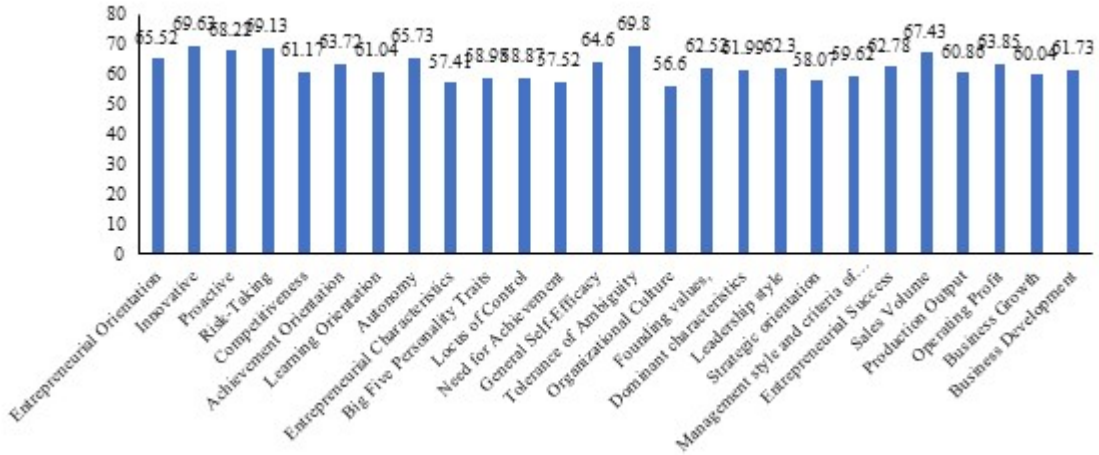


Figure 2. Variable description

Based on Figure 2, students' entrepreneurial orientation is moderate (65.52%), with innovation being the highest (69.63%), followed by proactiveness and risk-taking. Competitiveness, achievement orientation, and autonomy remain weak. Entrepreneurial characteristics are moderate (57.41%), marked by a high tolerance of ambiguity (69.8%); however, the Big Five traits, locus of control, and need for achievement require reinforcement. Self-efficacy (64.6%) indicates moderate confidence, while organizational culture (56.6%) combines strong values and leadership with a weak strategic orientation. Entrepreneurial success is moderate (62.78%), led by sales volume (67.43%). The relatively low scores on the Competitiveness indicator (61.17%) and Learning Orientation (61.04%) suggest constraints in student entrepreneurs' ability to compete assertively and to engage in reflective learning from market dynamics. This outcome likely reflects two interrelated contextual limitations: first, the nature of the local market environment, which has yet to foster a culture of intensive competition; and second, an educational system that remains normative mainly and insufficiently emphasises failure-driven learning, iterative experimentation, and strategic adaptability (Engeström & Käyhkö, 2021; Alvarado Valenzuela et al, 2023).

Outer Model Analysis

Outer model analysis confirmed convergent validity (Henseler et al., 2014), discriminant validity (Fornell & Larcker, 1981), and reliability (Anderson & Gerbing, 1988). The results of the outer model analysis are presented in Table 1.

Table 1. Loading factor, ave, alpha cronbach, composite reliability

Variable (item)	Loading Factor	AVE	Alpha Cronbach	Composite Reliability
Entrepreneurial Orientation (10 items)	0.689- 0.888	0.555 (1 indicator removed)	0.889	0.881
Entrepreneurial Characteristics (12 items)	0.631 - 0.826	0.537 (3 items removed)	0.823	0.853
Organizational Culture (16 items)	0.613 - 0.817	0.526 (1 item removed)	0.887	0.909
Entrepreneurial Success (10 items)	0.579 - 0.856	0.586 (3 indicators removed)	0.808	0.875

Based on Table 1, all constructs meet the standard of validity and reliability for structural model assessment. Entrepreneurial orientation (10 items, 1 removed) shows loadings of 0.689–0.888, AVE = 0.555, Cronbach's Alpha = 0.889, and composite reliability = 0.881, confirming satisfactory convergent validity (Fornell & Larcker, 1981). Entrepreneurial characteristics (12 items, 3 removed) demonstrate loadings between 0.631 and 0.826, AVE = 0.537, alpha = 0.823, and reliability = 0.853. Organizational culture (16 items, 1 removed) achieves loadings of 0.613–0.817, AVE = 0.526, alpha = 0.887, and reliability = 0.909. Discriminant validity (Table 2) is established as all AVE square roots surpass inter-construct correlations (Fornell & Larcker, 1981), as shown in the following table.

Table 2. Correlation between latent variables vs. the square root of AVE

	Entrepreneurial Orientation	Entrepreneurial Characteristics	Organizational Culture	Entrepreneurial Success
Entrepreneurial Orientation	**(0.852)**	0.574	0.585	0.482
Entrepreneurial Characteristics	0.561	**(0.703)**	0.451	0.558
Organizational Culture	0.588	0.576	**(0.769)**	0.414
Entrepreneurial Success	0.56	0.412	0.502	**(0.884)**

Table 2 reports the discriminant validity analysis based on the Fornell-Larcker criterion, which posits that validity is achieved when the square root of the AVE for each construct exceeds its correlations with other constructs (Fornell & Larcker, 1981). Results confirm that entrepreneurial orientation (AVE = 0.852), entrepreneurial characteristics (0.703), organizational culture (0.769), and entrepreneurial success (0.884) all meet this criterion. For instance, the correlation between entrepreneurial orientation and organizational culture (0.585) remains below the average value. Additionally, all Full Linearity VIFs were below the recommended threshold, supporting discriminant validity.

Table 3. Full linearity VIFs

Entrepreneurial Orientation	Entrepreneurial Characteristics	Organizational Culture	Entrepreneurial Success
1.557	1.935	2.043	1.517

Table 3 displays the results of the Full Linearity Variance Inflation Factors (FLVIF) analysis, which evaluates potential common method bias and multicollinearity among the latent constructs. The VIF scores are 1.557 for entrepreneurial orientation, 1.935 for entrepreneurial characteristics, 2.043 for organizational culture, and 1.517 for entrepreneurial success. As all values fall below the recommended threshold of 3.3 (Kock, 2024), there is no indication of common method bias or multicollinearity, confirming that the constructs are statistically independent of each other. Following the assessment of the outer measurement model, which satisfied the criteria for convergent validity, discriminant validity, and construct reliability, the structural (inner) model analysis was undertaken.

Inner Model Analysis and Hypothesis Test

Classical assumptions were not applied due to the use of the Warp-PLS method, which relies on resampling to test model stability. Specifically, Partial Least Squares Structural Equation Modelling (PLS-SEM), as implemented through WarpPLS, does not require data to meet the multivariate normality assumptions typically associated with covariance-based SEM (CB-SEM) or traditional parametric techniques (Hair et al., 2022; Usakli & Rasoolimanesh, 2023). PLS-SEM is distribution-free and is thus particularly suitable for exploratory models, complex structural relationships, and non-normally distributed data, especially in social science contexts with moderate sample sizes (Dash & Paul, 2021; Sarstedt et al., 2022).

Therefore, classical assumption tests such as normality, homoscedasticity, or multicollinearity diagnostics commonly used in Ordinary Least Squares (OLS) regression were deemed unnecessary in this study. Subsequently, model fit evaluation was performed across ten indices: Average Path Coefficient (APC), Average R-Squared (ARS), Average Adjusted R-Squared (AARS), Average block VIF (AVIF), Average full collinearity VIF (AFVIF), Tenenhaus Goodness-of-Fit (GoF), Sympson's Paradox Ratio (SPR), R-Squared Contribution Ratio (RSCR), Statistical Suppression Ratio (SSR), and Nonlinear Bivariate Causality Direction Ratio (NLBCDR). According to Kock (2021), all indices must surpass the cut-off criteria to confirm a well-fitting model and enable hypothesis testing. The following section presents the results of the model fit and quality indices.

Table 4. Model fit and quality indices

Fit Index	Cut-off Value	Analysis Result	Remark
APC	P>0.05	0.334. P<0.001	Fit
ARS	P>0.05	0.398. P<0.001	Fit
AARS	P>0.05	0.399. P<0.001	Fit
AVIF	Accepted if ≤ 5. ideally ≤ 3.3	1.987	Accepted
AFVIF	Accepted if ≤ 5. ideally ≤ 3.3	1.845	Accepted
GoF	Small ≥ 0.1. medium ≥ 0.25. large ≥ 0.36	0.577	Large
SPR	Accepted if ≥ 0.7. ideally = 1	1.000	Ideal
RSCR	Accepted if ≥ 0.9. ideally = 1	1.000	Ideal
RSK	Accepted if ≥ 0.7	1.000	Accepted
NLBCDR	Accepted if ≥ 0.7	1.000	Accepted

Table 4 shows that the structural model, which examines the role of entrepreneurial characteristics and organizational culture in moderating the impact of entrepreneurial orientation on student business performance, meets all model fit and quality index criteria. The values of the Average Path Coefficient (APC), Average R-squared (ARS), and Adjusted Average R-squared (AARS) indicate strong statistical significance ($P < 0.001$), suggesting that the model has a good overall fit. The AVIF and AFVIF indices are each below the maximum threshold of 5 and the ideal value of 3.3, indicating no multicollinearity among variables. The Tenenhaus GoF value of 0.577 exceeds the 0.36 threshold, indicating the model has strong explanatory power. Furthermore, the SPR, RSCR, SSR, and NLBCDR values were all 1.000, surpassing the recommended thresholds and indicating excellent structural replication, strong reliability, and consistent measurement quality. Accordingly, the conceptual model is statistically validated and deemed reliable, rendering it appropriate for hypothesis testing. The results of the hypothesis tests and corresponding path coefficients presented in the following table.

Table 5. Hypothesis testing results

Hypotheses and Regression Paths		*Path Coefficient*	*Cut of Value*	*P-Value*	Remark
H_1	Entrepreneurial Orientation → Entrepreneurial Success	0.378	<0.001	0.05	Supported
H_2	Entrepreneurial Characteristics → Entrepreneurial Success	0.334	<0.001	0.05	Supported

H_3	Organizational Culture → Entrepreneurial Success	0.225	0.001	0.05	Supported
Hypothesis and Moderation Effect		***Path Coefficient***	***Cut of Value***	***P-Value***	**Remark**
H_4	Entrepreneurial Orientation * Entrepreneurial Characteristics → Entrepreneurial Success	0.215	0.001	0.05	Supported
H_5	Entrepreneurial Orientation * Organizational Culture → Entrepreneurial Success	0.277	0.001	0.05	Supported

Table 5 reports that entrepreneurial orientation exerts a positive and significant effect on students' entrepreneurial success, as evidenced by a path coefficient of 0.378 with $p < 0.001$. This finding implies that higher levels of entrepreneurial orientation are associated with improved business performance. Furthermore, entrepreneurial characteristics demonstrate a significant positive influence on entrepreneurial success, with a path coefficient of 0.334 ($p < 0.001$), indicating that personal attributes such as confidence, perseverance, and innovativeness contribute to enhanced performance. Organizational culture also has a significant effect on entrepreneurial success, with a path coefficient of 0.225 ($p = 0.001$), indicating that shared values and norms within the organization play a supportive role in helping students achieve their entrepreneurial objectives. Two moderation effects tested also yielded significant results. The interaction between entrepreneurial orientation and entrepreneurial characteristics has a significant impact on entrepreneurial success, with a coefficient of 0.215 and a p-value of 0.001. It indicates that the characteristics of student entrepreneurs strengthen the impact of entrepreneurial orientation on their business performance. Similarly, the interaction between entrepreneurial orientation and organizational culture yielded a coefficient of 0.277 with $p = 0.001$, indicating that an organizational environment that supports entrepreneurship enhances the impact of entrepreneurial orientation on students' business success. The interaction results are presented in Figure 3.

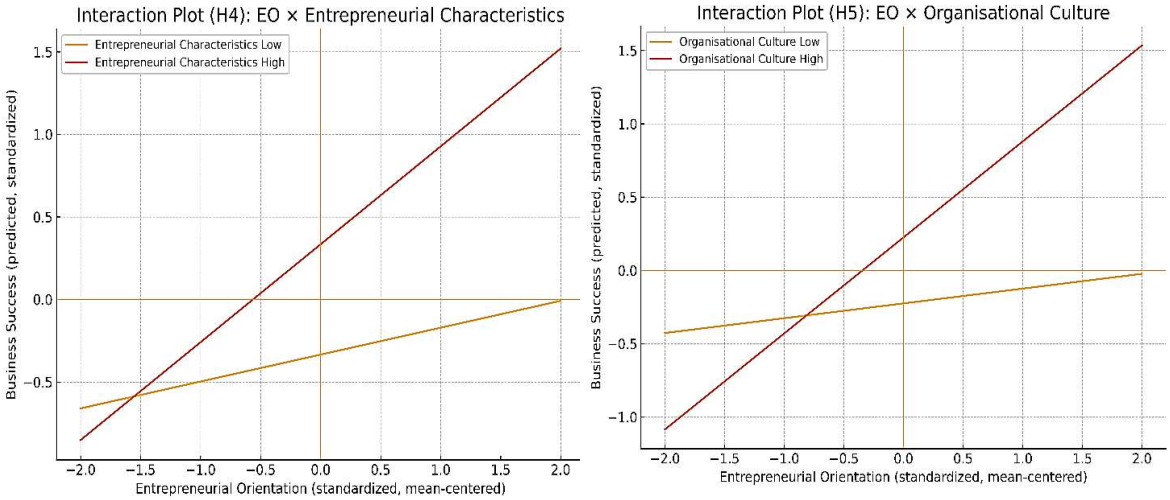


Figure 3. Interaction graphic in moderation analysis

The interaction plots above illustrate the moderating effects of Entrepreneurial Characteristics (H4) and Organizational Culture (H5) on the relationship between Entrepreneurial Orientation (EO) and Business Success. In the left panel (H4), the graph shows that when entrepreneurial characteristics are high, the slope of the relationship between EO and business success becomes steeper compared to when entrepreneurial characteristics are low. This indicates that high levels of entrepreneurial characteristics strengthen the positive effect of EO on business success. The interaction effect is statistically significant, with a path coefficient of 0.215 and a p-value of 0.001, confirming the presence of moderation. In the right panel (H5), a similar pattern is observed. The slope of the relationship is higher when organizational culture is strong, indicating that a supportive organizational culture amplifies the influence of EO on business outcomes. The moderation is even stronger here, with a higher interaction effect (path coefficient = 0.277, p = 0.001). These visualisations confirm that both entrepreneurial characteristics and organizational culture play a significant contingent role, enhancing the predictive power of EO on business success.

The Effect of Entrepreneurial Orientation, Entrepreneurial Characteristics, Organizational Culture, and Entrepreneurial Success toward Entrepreneurial Success

The findings of this study demonstrate that entrepreneurial orientation exerts a significant positive impact on students' entrepreneurial success. This finding suggests that students exhibiting higher levels of entrepreneurial orientation including proactiveness, innovativeness, and risk-taking are more likely to achieve superior performance outcomes. This aligns with prior studies by Gupta and Batra (2016) and Ghassani et al. (2020), which confirm the positive impact of entrepreneurial orientation on the growth and competitiveness of micro and small enterprises. From the Resource-Based View (RBV) perspective (Barney, 1991), entrepreneurial orientation constitutes a strategic intangible resource that is valuable, rare, inimitable, and non-substitutable, enabling student entrepreneurs to establish a sustainable competitive advantage in dynamic market environments (Nikitina et al., 2022; Wales et al., 2023).

This result also reinforces Entrepreneurial Learning Theory (ELT), which posits that entrepreneurial orientation develops through iterative learning, experiential knowledge accumulation, and reflective practice (Wasim et al., 2024). Therefore, students who consistently engage in opportunity recognition and experimentation enhance their entrepreneurial competencies, increasing their ability to translate orientation into tangible outcomes (Liu et al., 2023b). Empirical evidence from Nezhad (2024) further indicates that integrating entrepreneurial orientation with systematic learning processes significantly improves performance trajectories in student ventures. Furthermore, this study confirms that entrepreneurial characteristics such as innovativeness, adaptability, perseverance, and risk-taking have a significant impact on entrepreneurial success. This finding supports previous studies that highlight the critical role of individual traits in determining superior entrepreneurial performance (De Sousa et al., 2022; Bodolica et al., 2024). Within the RBV framework, these characteristics function as strategic intangible assets that are difficult to replicate and central to sustaining long-term competitiveness (Tu et al., 2016; Alvarez & Barney, 2017). In line with ELT, these traits are not entirely innate but evolve through reflective learning, social interaction, and iterative practice (Motta & Galina, 2023; Costa et al., 2024). Adaptability and resilience, for example, emerge as outcomes of experiential processes, such as

experimentation, incorporating feedback, and recombining prior knowledge and resources (Falahat et al., 2021). In this context, students with higher self-confidence are more willing to take risks and adopt innovative behaviours. At the same time, perseverance enables them to persist despite setbacks encountered during proactive strategic actions. These characteristics amplify the effectiveness of iterative learning cycles, allowing students to refine their entrepreneurial orientation through real-time feedback, trial and error, and reflective sense-making.

Empirical evidence suggests that students with strong entrepreneurial characteristics are better equipped to identify and capitalise on emerging opportunities, ultimately achieving superior entrepreneurial outcomes (Song et al., 2019; Ataei et al., 2024). Moreover, such students exhibit dynamic capabilities that enable the effective mobilization and reconfiguration of resources in pursuit of competitive advantage (Teece et al., 2016). Additional findings reveal that organizational culture has a significant influence on students' entrepreneurial success. A culture that emphasises collaboration, innovation, and autonomy functions as an enabling mechanism, strengthening entrepreneurial orientation and supporting performance sustainability. From the Resource-Based View (RBV) perspective, organizational culture constitutes a valuable and inimitable resource that shapes the strategic behaviors of nascent entrepreneurs (Ghassani et al., 2020). These findings align with Entrepreneurial Learning Theory, which conceptualizes organizational culture as a contextual driver of learning processes, facilitating collective sense-making, knowledge sharing, and opportunity enactment (Anning-Dorson, 2021; Liu et al., 2023b). Furthermore, participation in university incubation programs and project-based learning initiatives fosters an environment where cultural norms and experiential learning practices interact synergistically, accelerating the development of students' entrepreneurial competencies (Ling et al., 2020).

The moderating role of organizational culture in strengthening the relationship between entrepreneurial orientation and students' entrepreneurial performance provides important theoretical insight. When a supportive culture such as one that promotes psychological safety and encourages team members to share unconventional ideas without fear of criticism is established, innovative behaviors are more likely to develop. The findings demonstrate that a supportive culture amplifies the positive impact of entrepreneurial orientation on entrepreneurial success, consistent with prior evidence that organizational culture catalyzes the translation of strategic orientation into tangible performance outcomes (Le et al., 2020; Nikitina et al., 2022). By contrast, in the absence of a conducive culture, the potential benefits of entrepreneurial orientation may remain underrealized (Frese & Gielnik, 2023). Similarly, the results suggest that entrepreneurial characteristics moderate the relationship between entrepreneurial orientation and performance. Students with higher levels of creativity, proactiveness, and risk-taking are more likely to convert entrepreneurial orientation into sustained business success. This observation reinforces the view that individual entrepreneurial traits function as dynamic capabilities that enhance the strategic value of entrepreneurial orientation (Song et al., 2019; Sarwoko & Nurfarida, 2021; Liu et al., 2023a). In line with Entrepreneurial Learning Theory, these characteristics can be cultivated through experiential learning cycles that involve trial-and-error, reflection, and interaction within entrepreneurial networks (Wasim et al., 2024).

An Integrated Model of Student Entrepreneurial Success

This study proposes and empirically tests an integrative model in which student

entrepreneurial success arises from the systemic interaction among entrepreneurial orientation, entrepreneurial characteristics, and organizational culture. Entrepreneurial orientation, encompassing innovativeness, proactiveness, and risk-taking, serves as a strategic mechanism for opportunity mobilisation. However, its effectiveness is not autonomous; rather, it depends on internal capabilities that are firm-specific, path-dependent, and difficult to imitate, consistent with the Resource-Based View (Barney, 1991). Within this framework, entrepreneurial characteristics such as perseverance, adaptability, and entrepreneurial self-efficacy are conceptualized as dynamic capabilities that enable students to navigate uncertainty through reflective and iterative learning cycles (Sarwoko & Nurfarida, 2021; Frese & Gielnik, 2023). These characteristics facilitate the transformation of failure into learning episodes, aligning with the core premises of Entrepreneurial Learning Theory (Motta & Galina, 2023; Costa et al., 2024; Lamine et al., 2025; Lång et al., 2025). This learning-oriented capacity allows students to reconfigure their strategies, enhancing resilience and contextual sensitivity iteratively.

The theoretical contribution of this model lies in embedding learning dynamics within the RBV tradition, which historically has been critiqued for treating individual-level capabilities as static and decontextualised. In parallel, organizational culture serves as an institutional mechanism that legitimises and embeds entrepreneurial values into shared routines and collective cognition. An open, collaborative, and innovation-promoting culture operates as a strategic intangible resource that mediates the development of collective entrepreneurial agency (Anning-Dorson, 2021; Le et al., 2020), enhancing both social cohesion and the legitimacy of entrepreneurial behavior. However, the model has certain limitations. The sample, drawn from students active in entrepreneurship organisations, may be biased toward more intrinsically motivated individuals. Furthermore, while strong organizational cultures may foster cohesion, they also risk suppressing cognitive diversity (Ling et al., 2019). In developing contexts, such as Indonesia, structural constraints and institutional underdevelopment (Tu & Diem, 2016) may further shape entrepreneurial behaviour. Thus, student entrepreneurial success should be theorised through a contingency lens rooted in the dynamic and uneven realities of the Global South.

■ CONCLUSION

This study reveals that entrepreneurial orientation has a substantial and statistically significant impact on students' entrepreneurial success, offering compelling evidence for the synergistic integration of the Resource-Based View (RBV) and Entrepreneurial Learning Theory in the context of emerging economies. This study reveals that entrepreneurial orientation has a substantial and statistically significant impact on students' entrepreneurial success, offering compelling evidence for the synergistic integration of the RBV and Entrepreneurial Learning Theory in the context of emerging economies. Entrepreneurial orientation serving as a rare, valuable, and inimitable intangible resource generates sustained performance advantages when strategically aligned with adaptive entrepreneurial characteristics and a supportive innovation-oriented culture. These findings advance RBV by illustrating how individual-level orientations and dynamic capabilities drive resource orchestration and strategic learning in entrepreneurial ecosystems shaped by institutional constraints and market volatility. The findings call for higher education institutions and policymakers in the Global South to move beyond generic entrepreneurship education and implement tailored incubation programs that integrate three core dimensions: (1) structured modules that promote proactive entrepreneurial orientation through challenge-based learning and strategic

foresight simulations; (2) self-efficacy enhancement strategies, such as mentorship schemes with successful local entrepreneurs, peer-led bootcamps, and failure-resilience workshops; and (3) the deliberate cultivation of opportunity-enabling organizational cultures by embedding entrepreneurial values such as autonomy, risk-tolerance, and innovation in university governance, reward systems, and campus-wide policies. Furthermore, partnerships with local ecosystems such as MSMEs, digital platforms, and grassroots innovation hubs should be institutionalised to ensure the contextual alignment and long-term viability of these interventions.

Nevertheless, this research is subject to several limitations. This cross-sectional design precludes causal inference, and reliance on self-reported measures may introduce potential common method bias. The cross-sectional design limits causal inference; future research should adopt longitudinal methods to examine temporal dynamics. Reliance on self-reported data may introduce bias, suggesting the need for multi-source or behavioural data collection. The sample's contextual focus on Global South students restricts generalizability; future studies should test the model across diverse national settings. Moreover, the model omits contextual moderators (e.g., digital infrastructure, policy support); future work should incorporate such variables to enhance explanatory power and practical relevance. Furthermore, the study's exclusive focus on students in Semarang a metropolitan city in Indonesia characterised by distinct socio-economic dynamics, localised entrepreneurial ecosystems, and culturally embedded communal values limits the generalizability of its findings. These contextual characteristics differ markedly from those in other major Indonesian cities such as Jakarta, Bandung, and Surabaya, as well as in neighboring Southeast Asian countries and advanced economies, where institutional support structures, digital infrastructure, and entrepreneurial norms may be more developed or differently configured. Consequently, the application of these findings to regions with divergent educational systems, labor markets, or digital divides should be approached with caution. Future research should adopt longitudinal and mixed-method designs to capture the temporal dynamics of entrepreneurial orientation development and its interplay with institutional logics. Comparative studies across diverse cultural and economic settings are recommended to elucidate how entrepreneurial orientation interacts with learning processes and contextual contingencies to drive sustained entrepreneurial performance. Such inquiries will meaningfully advance theory and inform context-sensitive interventions in entrepreneurship education and policy.

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