



Entrepreneurial Success Model for Creative MSMEs in West Java: Implications for Entrepreneurship Education

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ABSTRACT

Objective: To develop and test an entrepreneurial success model for creative micro, small, and medium enterprises (MSMEs) in West Java, Indonesia, by examining five entrepreneur-level factors: entrepreneurial self-efficacy, entrepreneurial alertness, entrepreneurial creativity, opportunity recognition, and entrepreneurial orientation and to derive implications for entrepreneurship education. **Methods:** A quantitative explanatory survey of 432 creative-industry MSME owners was conducted (January–March 2025). Data were analyzed using PLS-SEM (SmartPLS 4) to estimate direct and mediating effects. The analysis followed standard procedures for outer/inner model evaluation (indicator loadings ≥ 0.70 where retained; reliability and HTMT satisfied) and bootstrapping (5,000 resamples) for path significance. **Results:** All five factors contributed significantly to entrepreneurial success. Self-efficacy, alertness, and entrepreneurial orientation showed positive direct effects, while creativity mediated the effects of self-efficacy and alertness, and opportunity recognition mediated the effects of alertness and entrepreneurial orientation. The structural model explained $R^2 = 0.716$ (71.6%) of the variance in success (creativity $R^2 = 0.644$; opportunity recognition $R^2 = 0.584$), indicating substantial explanatory power. **Novelty:** The study shows that entrepreneurial traits influence success primarily through the mediating mechanisms of creativity and opportunity recognition. This trait-mechanism coupling provides a clearer explanation of how entrepreneur-level factors translate into performance and offers actionable guidance for entrepreneurship education targeting these mediating capabilities.

INTRODUCTION

The creative economy is a major driver of Indonesia's regional development, with West Java serving as one of its largest creative-industry hubs. Despite their economic potential, many creative MSMEs struggle to sustain growth amid heightened competition, rapid shifts in consumer preferences, digital transformation pressures, and limited managerial capabilities. These challenges highlight the need to understand entrepreneur-level factors that shape performance in an area that remains understudied compared with external or organizational determinants. Entrepreneurial success in creative industries is shaped by individual-level mechanisms that operate under uncertainty and rapid change. Entrepreneurial alertness is a heightened sensitivity to cues that enables the discovery of "hidden" opportunities as foregrounded by Kirzner as a hallmark of entrepreneurial action (Kirzner, 1973) and elaborated by Tang et al. into three dimensions: scanning & search, association & connection, and evaluation and judgment (Tang et al., 2012). Empirical evidence links higher alertness with superior venture growth in dynamic markets (Adomako et al., 2018). Entrepreneurial self-efficacy (ESE) rooted in Social Cognitive Theory captures the belief in one's capability to organize and execute entrepreneurial action (Bandura, 1977) and is positively associated with small-firm performance (Miao et al., 2017); however, its effects materialize most fully when confidence is translated into disciplined, creative problem-solving.

Entrepreneurial creativity provides this conversion mechanism by transforming market signals and beliefs into novel, commercially valuable offerings across products, marketing, processes, and business models (Amabile, 1996; Du et al., 2014). Complementing these traits, opportunity recognition converts diffuse cues into specific, feasible ventures and frequently mediates the effects of alertness and entrepreneurial orientation (EO) on outcomes (Anwar et al., 2022; Ardichvili et al., 2003; Shane & Venkataraman, 2000). Finally, EO innovativeness, proactiveness, and risk-taking represents a strategic posture associated with superior performance in turbulent settings (Covin & Slevin, 1989; Miller, 1983; Rauch et al., 2009) , but it yields the strongest impact when paired with systematic opportunity identification (Anwar et al., 2022).

From an educational standpoint, these constructs suggest an integrated curricular blueprint: cultivate alertness through structured market scanning, trend analysis, and case-based opportunity spotting (Adomako et al., 2018; Tang et al., 2012); build ESE via mastery experiences (small venture projects), vicarious learning through mentoring, and guided reflection so confidence translates into execution (Bandura, 1977; Miao et al., 2017) develop creativity with problem-/project-based learning, design-thinking sprints, rapid prototyping, and cross-disciplinary collaboration (Amabile, 1996; Du et al., 2014) ; strengthen opportunity recognition through simulations, community-embedded opportunity scanning, and feasibility studies (Ardichvili et al., 2003; Shane & Venkataraman, 2000) ; and foster EO via capstone ventures, student-run enterprises, and a classroom climate that normalizes experimentation and intelligent risk-taking (Covin & Slevin, 1989; Miller, 1983; Rauch et al., 2009). Integrated in this way, entrepreneurship education not only transmits knowledge but also shapes the cognitive and strategic mechanisms that underpin opportunity discovery, innovative action, and sustained entrepreneurial performance.

While prior studies acknowledge the importance of entrepreneur-level factors in shaping firm performance, their role becomes particularly critical in contexts where MSMEs are predominantly necessity-driven rather than opportunity-driven, as is common among creative MSMEs in West Java. Many entrepreneurs enter business not through proactive opportunity pursuit, but as a response to limited employment alternatives, which often constrains systematic opportunity search, creative experimentation, and strategic growth orientation. In such conditions, performance limitations stem not merely from external constraints, but from underdeveloped internal cognitive and strategic mechanisms. This study argues that entrepreneurial alertness and opportunity recognition are central in addressing this limitation by enabling necessity-driven entrepreneurs to shift from reactive survival logic toward opportunity-oriented entrepreneurial behavior. When coupled with entrepreneurial self-efficacy, creativity, and entrepreneurial orientation, these mechanisms provide a structured pathway through which internal traits can be translated into innovative action and sustained performance. Accordingly, this study develops and tests a structural model in which entrepreneur-level traits influence entrepreneurial success primarily through the mediating roles of entrepreneurial creativity and opportunity recognition, offering both empirical clarification and targeted implications for entrepreneurship education aimed at transforming necessity-driven MSMEs into opportunity-driven ventures.

CONCEPTUAL FRAMEWORK

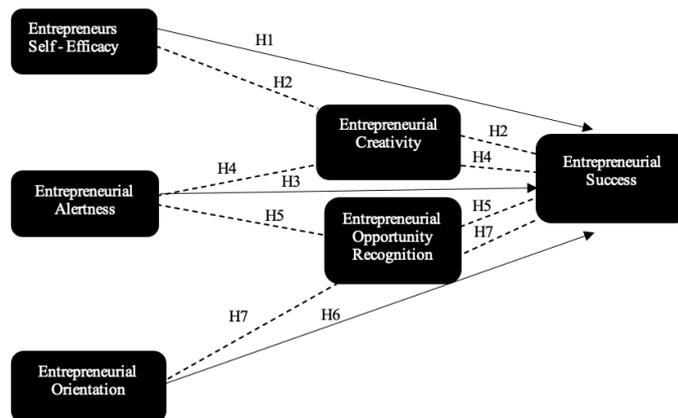


Figure 1. Conceptual Framework

Grounded in entrepreneurship and social-cognitive theories, this study proposes a trait-mechanism framework to explain entrepreneurial success among creative MSMEs. Entrepreneurial self-efficacy, entrepreneurial alertness, and entrepreneurial orientation are conceptualized as foundational entrepreneur-level traits that provide motivational, cognitive, and strategic resources. However, consistent with prior research, these traits are not expected to influence performance in isolation. Their effects are hypothesized to be transmitted through two key cognitive mechanisms: entrepreneurial creativity and opportunity recognition.

Entrepreneurial creativity enables entrepreneurs to transform confidence and market awareness into novel and valuable solutions across products, processes, and marketing practices. Opportunity recognition, in turn, allows entrepreneurs to convert diffuse market signals into identifiable and feasible business opportunities. Within this framework, entrepreneurial success is positioned as the ultimate outcome, reflecting growth, performance, and owner satisfaction. Figure 1 illustrates the proposed conceptual framework and hypothesized relationships.

Based on the proposed framework, the following hypotheses are formulated:

- H1** : Entrepreneurial self-efficacy has a positive effect on entrepreneurial success.
- H2** : Entrepreneurial creativity mediates the relationship between entrepreneurial self-efficacy and entrepreneurial success.
- H3** : Entrepreneurial alertness has a positive effect on entrepreneurial success.
- H4** : Entrepreneurial creativity mediates the relationship between entrepreneurial alertness and entrepreneurial success.
- H5** : Opportunity recognition mediates the relationship between entrepreneurial alertness and entrepreneurial success.
- H6** : Entrepreneurial orientation has a positive effect on entrepreneurial success.
- H7** : Opportunity recognition mediates the relationship between entrepreneurial orientation and entrepreneurial success.

This hypothesized structure enables the examination of both direct and indirect effects, allowing the study to assess whether entrepreneurial success is driven primarily by entrepreneur-level traits or by the mechanisms through which these traits are activated.

RESEARCH METHOD

This study adopted a quantitative, explanatory survey design to test a structural model of entrepreneurial success among creative-industry MSME entrepreneurs in West Java, Indonesia. The target population covered key subsectors culinary, fashion, crafts, design, music, and related fields. Using purposive sampling, we recruited 432 founders/owners of micro–small creative ventures that had operated for at least one year. Data were collected January–March 2025 via an online questionnaire with closed-ended items rated on a five-point Likert scale. Six latent constructs were measured: Entrepreneurial Self-Efficacy, Entrepreneurial Alertness, Entrepreneurial Creativity, Opportunity Recognition, Entrepreneurial Orientation, and Entrepreneurial Success. Indicators for each construct were adapted from validated scales in prior studies (e.g., Chen et al. for self-efficacy; Tang et al. for alertness). Prior to full deployment, a pilot test ensured clarity, content validity, and reliability of the items.

Model estimation employed Structural Equation Modeling with a Partial Least Squares (PLS) approach using SmartPLS 4.0, which is appropriate for simultaneously assessing complex causal relations and mediation among multiple latent variables. The analytic procedure comprised two stages. First, the measurement (outer) model was evaluated for convergent validity, discriminant validity, and internal consistency; items with factor loadings < 0.70 were removed, and all constructs met accepted thresholds for reliability (Cronbach's $\alpha > 0.80$) and discriminant validity (HTMT < 0.90). Second, the structural (inner) model was tested to examine hypothesized paths. Statistical significance of path coefficients was assessed via bootstrapping with 5,000 resamples, reporting path coefficients, z-statistics/t-values, and p-values, with a two-tailed $\alpha = 0.05$ (equivalently $z \geq 1.96$). R-square (R^2) values were used to gauge explained variance in endogenous constructs, supplemented by overall goodness-of-fit diagnostics.

To contextualize the estimates, respondent characteristics were tabulated. The sample was predominantly female (62.6%), with firms aged 1–3 years; most operated in the culinary subsector (55.7%), at micro scale (no employees or < 5 employees), and relied primarily on personal capital (81%). These demographics mirror the structure of West Java's creative MSMEs small, skills-based enterprises and inform interpretation of the model's external validity.

RESULTS AND DISCUSSION

Results

Descriptive analyses conducted prior to hypothesis testing indicate that the creative-industry MSME owners in West Java reported generally high levels of entrepreneurial self-efficacy (mean $\approx 70/100$), suggesting strong confidence in managing their ventures. Entrepreneurial alertness was also high, reflected in frequent market scanning and active search for opportunity information. Entrepreneurial orientation exhibited wider dispersion across respondents: some were highly innovative and proactive, while others pursued more conventional approaches. Entrepreneurial creativity averaged above the scale midpoint (mean $> 60\%$ of maximum), implying regular generation of new ideas for products, marketing, or processes. Opportunity recognition was likewise relatively high, with most respondents indicating the ability to identify expansion or new product opportunities in response to

market shifts. As for entrepreneurial success measured through sales growth, asset increases, and owner satisfaction the average indicated moderate-to-good performance, with about one third of firms in the highly successful category and the remainder distributed between moderate and below expectations.

The structural model exhibited adequate fit to the data (SRMR = 0.06, ≤ 0.08) and substantial explanatory power for entrepreneurial success ($R^2 = 0.716$). Thus, the focal drivers jointly accounted for 71.6% of success variance. Mediators were also well explained: entrepreneurial creativity ($R^2 = 0.644$) and opportunity recognition ($R^2 = 0.584$), indicating that the exogenous traits self-efficacy, alertness, and entrepreneurial orientation systematically shaped both creative action and the conversion of market cues into identifiable opportunities.

Table 1. Results of the structural model (PLS-SEM) hypothesis tests. All relationships align with the theoretical expectations and are significant at $\alpha = 0.05$.

Hypothesis	Relationship	Path Coefficient (β)	z-value	P-value	Note
H1	Self-Efficacy → Entrepreneurial Success	0.442	13.151	< 0.001	Significant (supported)
H2	Self-Efficacy → Success (via Entrepreneurial Creativity)	0.145	5.813	< 0.001	Significant (partial mediation)
H3	Entrepreneurial Alertness → Entrepreneurial Success	0.439	6.417	< 0.001	Significant (supported)
H4	Alertness → Success (via Entrepreneurial Creativity)	0.422	7.855	< 0.001	Significant (partial mediation)
H5	Alertness → Success (via Opportunity Recognition)	0.511	11.285	< 0.001	Significant (partial mediation)
H6	Entrepreneurial Orientation → Entrepreneurial Success	0.379	9.980	< 0.001	Significant (supported)
H7	Orientation → Success (via Opportunity Recognition)	0.297	9.654	< 0.001	Significant (partial mediation)

All hypothesized relationships were supported. Self-efficacy exhibited a strong positive direct effect on success ($\beta = 0.442$, $z = 13.151$, $p < 0.001$), and also an indirect effect via creativity ($\beta = 0.145$, $z = 5.813$, $p < 0.001$). The persistence of the direct path alongside the indirect effect indicates partial mediation: confidence facilitates success both directly and by channeling effort into creative problem-solving that enhances performance. Entrepreneurial alertness likewise showed a positive direct effect on success ($\beta = 0.439$, $z = 6.417$, $p < 0.001$), complemented by significant indirect pathways through creativity ($\beta = 0.422$, $z = 7.855$, $p < 0.001$) and through opportunity recognition ($\beta = 0.511$, $z = 11.285$, $p < 0.001$). Notably, the indirect path via opportunity recognition was sizable, suggesting that being alert is most valuable when signals are systematically translated into concrete, feasible opportunities; creativity further amplifies the impact by turning those opportunities into implementable solutions. Entrepreneurial orientation had a clear direct effect on success ($\beta = 0.379$, $z = 9.980$, $p < 0.001$) and an additional indirect effect via opportunity recognition ($\beta = 0.297$, $z = 9.654$, $p < 0.001$). This indicates that an innovative, proactive, and risk-embracing posture delivers the strongest payoff when coupled with disciplined identification and evaluation of opportunities.

Table 2. Descriptive Statistics of Latent Constructs

Construct	Mean (M)	Standard Deviation (SD)
Entrepreneurial Self-Efficacy	4.12	0.61
Entrepreneurial Alertness	4.08	0.58
Entrepreneurial Creativity	3.87	0.65
Opportunity Recognition	3.94	0.59
Entrepreneurial Orientation	3.78	0.72
Entrepreneurial Success	3.90	0.63

Descriptive statistics for the latent constructs were also examined to provide better transparency. Entrepreneurial Self-Efficacy showed a moderately high mean (M = 4.12, SD = 0.61), indicating generally strong confidence among MSME owners in performing entrepreneurial tasks. Entrepreneurial Alertness exhibited a similarly high average (M = 4.08, SD = 0.58), reflecting frequent engagement in scanning and searching for market information. Entrepreneurial Creativity demonstrated an above-midpoint mean (M = 3.87, SD = 0.65), suggesting consistent generation of new ideas in product, marketing, or process development. Opportunity Recognition also showed relatively high perceptions (M = 3.94, SD = 0.59), indicating that most respondents were able to identify actionable opportunities arising from market shifts. Finally, Entrepreneurial Orientation displayed greater variability (M = 3.78, SD = 0.72), reflecting differences in innovativeness, proactiveness, and risk-taking among the firms. These mean SD combinations indicate that although respondents generally exhibit strong entrepreneurial traits and mechanisms, there is meaningful variation across individuals which supports the need to test the structural relationships proposed in the model.

Table 3. R-Square Results (PLS-SEM)

Construct	R-Square	Adjusted R-Square
Entrepreneurial Success	0.716	0.713
Entrepreneurial Creativity	0.644	0.643
Opportunity Recognition	0.584	0.582

The model explains 71.6% of the variance in Entrepreneurial Success, indicating substantial explanatory power. In this study, success is driven by Self-Efficacy, Alertness, Creativity, Entrepreneurial Orientation, and Opportunity Recognition, with the remaining 28.4% attributable to factors outside the model. For Entrepreneurial Creativity, the R² of 0.644 denotes moderate-to-substantial explanation by the exogenous constructs, confirming their strong contribution to creative action within ventures. For Opportunity Recognition, the R² of 0.584 reflects a moderate level of explained variance. Exogenous variables meaningfully shape the ability to identify actionable opportunities, though external influences still account for 41.6% of its variability. Overall, these coefficients indicate a well-performing structural model, with endogenous constructs explained at substantial to moderate levels appropriate for further inference about entrepreneurial dynamics in West Java's creative MSMEs.

Table 4. F-Square Results (PLS-SEM)

Construct Relation	f ²	Interpretation
Self-Efficacy → Entrepreneurial Success	0.064	Small
Self-Efficacy → Entrepreneurial Creativity	0.138	Small-Medium
Entrepreneurial Alertness → Entrepreneurial Success	0.007	Very Small
Entrepreneurial Alertness → Entrepreneurial Creativity	0.240	Medium
Entrepreneurial Creativity → Entrepreneurial Success	0.010	Very Small
Entrepreneurial Orientation → Entrepreneurial Success	0.095	Small

Construct Relation	f ²	Interpretation
Entrepreneurial Orientation → Opportunity Recognition	0.284	Medium
Opportunity Recognition → Entrepreneurial Success	0.101	Small

The f^2 statistics indicate the local effect size of each predictor on its target construct (i.e., the incremental change in R^2 when the predictor is included vs. excluded). Two strongest effects emerge at the mediating stage: Alertness → Creativity ($f^2 = 0.240$, medium) and Entrepreneurial Orientation → Opportunity Recognition ($f^2 = 0.284$, medium), suggesting that alertness primarily fuels creative activity, and orientation primarily enhances opportunity recognition. Direct effects on Entrepreneurial Success are mostly small or very small (e.g., Self-Efficacy → Success, $f^2 = 0.064$; EO → Success, $f^2 = 0.095$; Opportunity Recognition → Success, $f^2 = 0.101$), implying that much of the impact on success is channeled through Creativity and Opportunity Recognition rather than acting purely directly. This pattern aligns with entrepreneurship theory emphasizing alertness and strategic orientation as upstream drivers that operate via creativity and opportunity recognition on eventual performance.

Discussion

Taken together, these results depict entrepreneurial success as a function of trait-mechanism coupling. Self-efficacy, alertness, and entrepreneurial orientation provide the motivational and strategic energy, but their largest impacts materialize when they flow through entrepreneurial creativity and opportunity recognition. In practice, confidence that does not translate into novel, purposeful action has limited effect; alertness that is not converted into specific opportunities is under-leveraged; and a strong entrepreneurial posture without opportunity discipline risks misallocation of effort. Conversely, when confidence, alertness, and orientation are consistently routed through the mechanisms of creativity and recognition, ventures achieve more reliable performance gains consistent with the high R^2 for success and the significant indirect pathways observed.

Importantly, the trait-mechanism coupling identified in this study is highly relevant in the context of ongoing digital transformation pressures faced by creative MSMEs. Rapid digitalization, platform-based competition, shifting consumer behavior, and algorithm-driven markets intensify uncertainty and shorten product life cycles. In such environments, external shocks cannot be navigated effectively through resources alone. Instead, entrepreneurial success increasingly depends on internal cognitive mechanisms that enable entrepreneurs to interpret digital signals, recombine knowledge, and act decisively. Entrepreneurial alertness allows entrepreneurs to scan and interpret rapidly evolving digital cues; entrepreneurial creativity facilitates the translation of these cues into innovative digital products, marketing strategies, or business models; and opportunity recognition supports the disciplined selection of viable opportunities amid information overload. Self-efficacy and entrepreneurial orientation further sustain persistence and strategic risk-taking under digital uncertainty. Thus, the study demonstrates that internal traits help entrepreneurs navigate external digital disruptions precisely when they are activated through creativity and opportunity recognition, reinforcing the relevance of the trait-mechanism framework in digitally turbulent contexts.

The findings indicate that entrepreneurial self-efficacy exerts a robust positive association with venture success, reinforcing social-cognitive reasoning that confidence

sustains achievement-oriented action, persistence under constraints, and judicious exploitation of opportunities (Glosenberget al., 2022; Srimulyani & Hermanto, 2021) Crucially, a substantive share of this influence is transmitted through entrepreneurial creativity: owners with higher self-efficacy more consistently transform intentions into novel product, marketing, and process solutions that improve outcomes. In this sense, self-efficacy operates as entrepreneurial psychological capital whose returns are maximized when expressed in creative problem-solving rather than routine action (Bandura, 1977; Glosenberget al., 2022). Beyond confidence, entrepreneurial alertness contributes to success both directly and indirectly via creativity and opportunity recognition. This pattern accords with Kirzner's view of alertness as an informational advantage that enables entrepreneurs to detect "hidden" market signals ahead of rivals (Kirzner, 1973) and aligns with empirical evidence linking alertness to SME growth (Adomako et al., 2018). The mediation through creativity indicates that recognizing signals is insufficient without creative elaboration into implementable offerings (Araujo et al., 2023). The mediation through opportunity recognition larger than the direct path in our model underscores that being alert must be followed by formulating and exploiting specific opportunities, rather than merely registering environmental change (Donbesuur et al., 2020; Shane & Venkataraman, 2000).

Finally, entrepreneurial orientation (EO) innovativeness, proactiveness, and risk-taking shows a significant direct link to success, echoing classic evidence of its performance benefits (Covin & Slevin, 1989; Rauch et al., 2009). Yet EO's impact is amplified when owners possess strong opportunity recognition capability: an entrepreneurial posture accelerates search and experimentation, but outcomes improve most when opportunities are systematically identified, vetted, and pursued. Related studies similarly suggest that EO often operates through intermediate mechanisms such as competitive advantage or structured opportunity pipelines rather than acting in isolation. Taken together, the evidence portrays success as trait-mechanism coupling: self-efficacy, alertness, and EO matter most when channeled through creativity and opportunity recognition. Accordingly, entrepreneurship education and support programs should pair mindset development with structured market scanning, disciplined ideation, and feasibility evaluation to convert signals → ideas → validated opportunities → execution (Adomako et al., 2018; Araujo et al., 2023; Donbesuur et al., 2020; Kirzner, 1973; Shane & Venkataraman, 2000).

Limitations should be noted. The study relies on cross-sectional, self-reported measures, raising the possibility of common-method bias and limiting causal inference. Although the PLS-SEM framework is suited to complex mediation models, longitudinal or intervention designs would further strengthen causal claims. External validity is bounded by the West Java creative-industry context; replication in other regions or sectors would test generalizability. Future work can extend these findings by tracking how alertness, creativity, and opportunity recognition co-evolve with performance over time; experimentally evaluating educational interventions that target these mechanisms; examining moderating roles of resources, networks, or digital capabilities; comparing effect sizes across sectors; and incorporating objective performance metrics (e.g., verified revenue growth, employment, intellectual property outputs) to complement perceptual indicators.

In sum, the evidence supports a coherent account: entrepreneurial success in creative MSMEs is maximized when foundational traits self-efficacy, alertness, and



entrepreneurial orientation are consistently translated into creative action and disciplined recognition of opportunities. Designing educational and capacity-building programs around these mechanisms is therefore a direct pathway to more durable performance outcomes.

CONCLUSION

This study demonstrates that entrepreneurial self-efficacy, alertness, and entrepreneurial orientation significantly influence entrepreneurial success in creative MSMEs; however, their strongest effects emerge when these traits are translated through the mediating mechanisms of entrepreneurial creativity and opportunity recognition. The findings highlight that entrepreneurial performance is driven not only by psychological or strategic traits, but by how consistently these traits are activated through cognitive mechanisms that convert signals into ideas and ideas into viable opportunities.

This study demonstrates that entrepreneurial self-efficacy, alertness, and entrepreneurial orientation significantly influence entrepreneurial success in creative MSMEs; however, their strongest effects emerge when these traits are consistently activated through the mediating mechanisms of entrepreneurial creativity and opportunity recognition. The findings confirm that entrepreneurial performance is not driven by traits alone, but by the extent to which these traits are translated into cognitive and strategic action particularly in contexts characterized by digital transformation and market volatility.

From an educational and policy perspective, the implications can be synthesized into two core pillars First, Mindset Fortification. Entrepreneurship education should deliberately strengthen foundational entrepreneurial mindsets, including self-efficacy, alertness, and entrepreneurial orientation. This involves building confidence through mastery experiences, cultivating sensitivity to market and digital signals, and fostering proactive and risk-aware strategic thinking. Such mindset development is essential for enabling entrepreneurs especially those operating under necessity-driven conditions to shift from reactive survival logic toward opportunity-oriented behavior. Second, Cognitive Tool Acquisition.

Mindset development must be complemented by systematic acquisition of cognitive tools that translate traits into action. Educational programs should embed structured processes such as digital market scanning, design thinking, opportunity evaluation, and feasibility analysis. These tools operationalize creativity and opportunity recognition, enabling entrepreneurs to navigate digital disruptions, filter information overload, and transform ideas into viable innovations and sustainable performance outcomes.

Together, these pillars provide a coherent framework for entrepreneurship education and MSME capacity-building programs. By integrating mindset fortification with cognitive tool acquisition, educational interventions can more effectively prepare entrepreneurs to respond to digital transformation pressures and achieve sustained success. While the cross-sectional design limits causal inference, the findings offer a clear pathway for future longitudinal and intervention-based research to further examine how these mechanisms evolve over time and across sectors.

REFERENCES

- Adomako, S., Danso, A., Boso, N., & Narteh, B. (2018). Entrepreneurial alertness and new venture performance: Facilitating roles of networking capability. *International Small Business Journal: Researching Entrepreneurship*, 36(5), 453–472. <https://doi.org/10.1177/0266242617747667>
- Amabile, T. M. (1996). *Creativity in context*. CO: Westview Press.
- Anwar, M., Clauss, T., & Issah, W. B. (2022). Entrepreneurial orientation and new venture performance in emerging markets: The mediating role of opportunity recognition. *Review of Managerial Science*, 16(3), 769–796. <https://doi.org/10.1007/s11846-021-00457-w>
- Araujo, C. F., Karami, M., Tang, J., Roldan, L. B., & Dos Santos, J. A. (2023). Entrepreneurial alertness: A meta-analysis and empirical review. *Journal of Business Venturing Insights*, 19, e00394. <https://doi.org/10.1016/j.jbvi.2023.e00394>
- Ardichvili, A., Cardozo, R., & Ray, S. (2003). A theory of entrepreneurial opportunity identification and development. *Journal of Business Venturing*, 18(1), 105–123. [https://doi.org/10.1016/S0883-9026\(01\)00068-4](https://doi.org/10.1016/S0883-9026(01)00068-4)
- Bandura, A. (1977). *Self-efficacy: Toward a Unifying Theory of Behavioral Change*.
- Covin, J. G., & Slevin, D. P. (1989). Strategic management of small firms in hostile and benign environments. *Strategic Management Journal*, 10(1), 75–87. <https://doi.org/10.1002/smj.4250100107>
- Donbesuur, F., Boso, N., & Hultman, M. (2020). The effect of entrepreneurial orientation on new venture performance: Contingency roles of entrepreneurial actions. *Journal of Business Research*, 118, 150–161. <https://doi.org/10.1016/j.jbusres.2020.06.042>
- Du, J., Leten, B., & Vanhaverbeke, W. (2014). Managing open innovation projects with science-based and market-based partners. *Research Policy*, 43(5), 828–840. <https://doi.org/10.1016/j.respol.2013.12.008>
- Glosenberg, A., Phillips, D., Schaefer, J., Pollack, J. M., Kirkman, B. L., McChesney, J., Noble, S. M., Ward, M. K., & Foster, L. L. (2022). The relationship of self-efficacy with entrepreneurial success: A meta-analytic replication and extension. *Journal of Business Venturing Insights*, 18, e00342. <https://doi.org/10.1016/j.jbvi.2022.e00342>
- Kirzner, I. M. (1973). *Competition and entrepreneurship*. University of Chicago Press. <https://doi.org/10.7208/chicago/9780226375489.001.0001>
- Miao, C., Qian, S., & Ma, D. (2017). The Relationship between Entrepreneurial Self-Efficacy and Firm Performance: A Meta-Analysis of Main and Moderator Effects. *Journal of Small Business Management*, 55(1), 87–107. <https://doi.org/10.1111/jsbm.12240>
- Miller, D. (1983). The Correlates of Entrepreneurship in Three Types of Firms. *Management Science*, 29(7), 770–791. <https://doi.org/10.1287/mnsc.29.7.770>
- Rauch, A., Wiklund, J., Lumpkin, G. T., & Frese, M. (2009). Entrepreneurial Orientation and Business Performance: An Assessment of past Research and Suggestions for the Future. *Entrepreneurship Theory and Practice*, 33(3), 761–787. <https://doi.org/10.1111/j.1540-6520.2009.00308.x>
- Shane, S., & Venkataraman, S. (2000). *THE PROMISE OF ENTREPRENEURSHIP AS A FIELD OF RESEARCH*.



-
- Srimulyani, V. A., & Hermanto, Y. B. (2021). Impact of Entrepreneurial Self-Efficacy and Entrepreneurial Motivation on Micro and Small Business Success for Food and Beverage Sector in East Java, Indonesia. *Economies*, 10(1), 10. <https://doi.org/10.3390/economies10010010>
- Tang, J., Kacmar, K. M. (Micki), & Busenitz, L. (2012). Entrepreneurial alertness in the pursuit of new opportunities. *Journal of Business Venturing*, 27(1), 77-94. <https://doi.org/10.1016/j.jbusvent.2010.07.001>

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