

The Psychological Mechanisms Underlying Digital Entrepreneurial Intentions and Behaviors in The Era of Artificial Intelligence: A Qualitative Synthesis Study

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Abstract: *In the context of global digital transformation, the integration of Artificial Intelligence (AI), particularly Generative Artificial Intelligence (GAI), has fundamentally redefined the developmental trajectory of digital entrepreneurs. This paper conducts a qualitative synthesis study to explore the underlying psychological mechanisms that drive entrepreneurial intentions and behaviors in the AI era. Drawing upon evidence from 44 academic sources, the study elucidates the role of AI as a powerful technological stimulus within the Stimulus–Organism–Response (SOR) framework. The findings reveal that AI adoption, exemplified by technologies such as ChatGPT, represents not merely a technological shift but also a transformative force that profoundly influences entrepreneurial identity aspiration and digital entrepreneurial self-efficacy (ESE). The study establishes a psychological transmission pathway through which AI literacy and digital capabilities enhance perceptions of entrepreneurial attractiveness and feasibility, thereby fostering entrepreneurial hustle and proactive venture creation behaviors. Furthermore, the paper examines critical barriers associated with technology anxiety and the phenomenon of cognitive offloading, both of which may hinder effective entrepreneurial decision-making and long-term capability development. Based on these findings, the study proposes educational and training strategies aimed at balancing technical competence with psychological adaptability in order to cultivate a resilient and future-ready generation of digital entrepreneurs.*

Keywords: *Digital Entrepreneurship; Artificial Intelligence (AI); Entrepreneurial Identity Aspiration; Digital Entrepreneurial Self-Efficacy (ESE); Stimulus–Organism–Response (SOR) Model; Technology Anxiety.*

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I. Introduction

The convergence of technological innovation and entrepreneurial activity has given rise to a new era of digital entrepreneurship, in which traditional market-entry barriers are increasingly dismantled by the transformative power of big data and intelligent algorithms. Within this rapidly evolving landscape, Artificial Intelligence (AI) has emerged as a critical technological force that extends far beyond its conventional role as an operational support tool. Through its capacity for learning, adaptation, and intelligent decision-making, AI has become a transformative and enabling force that fundamentally reshapes how individuals identify, evaluate, and exploit entrepreneurial opportunities in the digital economy.

The growing accessibility of AI technologies, particularly Generative Artificial Intelligence (GenAI) applications such as ChatGPT, has significantly lowered the cognitive and resource constraints traditionally associated with entrepreneurial activities. Entrepreneurs can now leverage AI to conduct market analysis, generate innovative business ideas, automate routine tasks, and develop strategic insights with unprecedented speed and efficiency. Consequently, AI has become an important catalyst for entrepreneurial action, empowering individuals to pursue venture creation opportunities that may previously have been perceived as unattainable.

Despite the increasing prominence of AI in entrepreneurial ecosystems, existing research has largely concentrated on the technological capabilities and operational outcomes of AI adoption. Comparatively less attention has been devoted to understanding the underlying psychological and cognitive mechanisms through which AI influences entrepreneurial decision-making and behavior. These mechanisms are particularly important because the transition from entrepreneurial intention to actual entrepreneurial behavior is not solely determined by technological access but is also shaped by complex psychological processes involving motivation, identity formation, self-efficacy, and opportunity perception.

As a result, the psychological pathways through which individuals internalize technological stimuli and transform them into entrepreneurial actions remain a largely unexplored “black box” in contemporary entrepreneurship research. Understanding how entrepreneurs develop a digital entrepreneurial identity and cultivate confidence in their ability to utilize AI effectively is essential for explaining why some individuals successfully engage in entrepreneurial activities while others do not. Such understanding is also critical for

designing educational programs, support mechanisms, and innovation ecosystems that can foster sustainable entrepreneurial development in the digital age.

In response to this research gap, this paper synthesizes contemporary empirical findings and theoretical perspectives to provide a comprehensive understanding of the psychological mechanisms underlying digital entrepreneurial intentions and behaviors in the era of Artificial Intelligence. By integrating insights from entrepreneurship, psychology, and technology-adoption research, the study seeks to clarify the cognitive and motivational pathways through which AI influences entrepreneurial outcomes and contributes to the emergence of a new generation of digitally empowered entrepreneurs.

II. Research Methodology

This study adopts a theoretical synthesis approach combined with qualitative content analysis based on a database of 44 reputable academic sources, primarily published between 2019 and early 2026. The research process was conducted in three major stages. First, prominent themes and emerging research trends were identified and categorized through a systematic examination of systematic literature reviews (SLRs) focusing on Artificial Intelligence (AI) and entrepreneurship. This stage provided a conceptual foundation for understanding the evolving relationship between AI technologies and entrepreneurial activities.

Second, an in-depth analysis was undertaken to examine several key theoretical frameworks that explain the psychological mechanisms underlying entrepreneurial intentions and behaviors in the AI era. These frameworks included the Stimulus–Organism–Response (SOR) model, the Entrepreneurial Event Model (EEM), and the Course–Cognition–Self-Efficacy–Intention–Behavior (CCSIB) pathway. Particular attention was devoted to understanding how AI-related technological stimuli influence cognitive processes, entrepreneurial self-efficacy, opportunity perceptions, and subsequent entrepreneurial actions.

Third, empirical evidence derived from large-scale surveys conducted in emerging economies, particularly Vietnam and China, was systematically compared and synthesized. This comparative analysis enabled the identification of common patterns and contextual differences in the adoption of AI technologies and their influence on digital entrepreneurial development across diverse socioeconomic settings.

To ensure the comprehensiveness and robustness of the analysis, the study incorporated evidence from multiple methodological traditions, including quantitative research, qualitative investigations, and case-study analyses. The integration of diverse sources of evidence provided a multidimensional understanding of the psychological pathways through which AI shapes entrepreneurial intentions and behaviors, thereby enhancing the depth and credibility of the study's conclusions.

III. Theoretical Foundations Of Psychological Mechanisms In Digital Entrepreneurship

The Stimulus–Organism–Response (SOR) theory serves as the central framework for explaining how external stimuli from the AI technology environment influence individuals' internal psychological states and subsequently lead to specific entrepreneurial behaviors. Within this model, AI adoption or AI literacy is conceptualized as technological stimuli (Stimulus) acting upon the “organism” (Organism), which represents psychological states such as digital entrepreneurial identity aspiration and digital self-efficacy.

In parallel, the Entrepreneurial Event Model (EEM) provides a mechanism for explaining how AI shapes perceptions of the desirability and feasibility of establishing a digital venture. Construal Level Theory (CLT) further clarifies AI's role in reducing psychological distance, thereby transforming abstract business goals into concrete and attainable tasks.

Finally, theories of Digital Entrepreneurial Self-Efficacy (ESE) and Entrepreneurial Hustle connect individuals' beliefs in their entrepreneurial capabilities with the intensity and persistence of their real-world entrepreneurial actions.

IV. Synthesis of Findings: From Cognition to Entrepreneurial Behavior

The existing literature largely converges on the view that Artificial Intelligence (AI) functions as a powerful “thinking partner” that enables individuals to overcome initial cognitive barriers and progress toward proactive digital entrepreneurial behaviors. The adoption of AI tools such as ChatGPT not only enhances productivity and efficiency but also exerts a profound influence on entrepreneurial identity aspiration, enabling individuals to more readily envision and internalize the role of a future digital entrepreneur. When entrepreneurs perceive that AI can effectively perform complex tasks such as market analysis, opportunity evaluation, and financial planning, they experience a reduction in psychological distance, making entrepreneurial projects appear more feasible, attainable, and actionable.

The Course–Cognition–Self-Efficacy–Intention–Behavior (CCSIB) pathway further demonstrates that a comprehensive understanding of both the strategic value and potential risks associated with AI constitutes the foundation for developing robust digital entrepreneurial self-efficacy. This enhanced self-efficacy subsequently translates into stronger entrepreneurial intentions and, ultimately, into concrete opportunity-exploitation behaviors. Among the various psychological constructs examined in the literature, Digital Entrepreneurial Self-

Efficacy (ESE) consistently emerges as the most influential mediating variable, serving as the critical link between AI-related technical competencies and sustained entrepreneurial hustle.

Entrepreneurial hustle in the AI era exhibits several distinctive characteristics, particularly the combination of rapid action orientation and data-driven adaptability. Psychological readiness to effectively utilize AI technologies enables entrepreneurs to conduct predictive analyses and simulate alternative business scenarios with greater accuracy, thereby reducing uncertainty, alleviating anxiety, and strengthening resilience in the face of temporary setbacks. Empirical evidence suggests that individuals who demonstrate a high degree of alignment between AI-related digital capabilities and entrepreneurial self-efficacy exhibit the strongest entrepreneurial intentions and behavioral commitment. Conversely, an imbalance between these two dimensions—such as excessive confidence without sufficient technical competence, or strong technical competence accompanied by low confidence—significantly diminishes the effectiveness of entrepreneurial actions. These findings suggest that the psychological mechanisms driving digital entrepreneurship should not be understood as isolated factors but rather as an interconnected system involving knowledge, beliefs, self-perceptions, and entrepreneurial aspirations.

In addition, environmental factors, including entrepreneurship education and ecosystem support mechanisms, play a substantial role in shaping the psychological development of digital entrepreneurs. AI-integrated entrepreneurship education programs enable students to claim and construct their entrepreneurial identities through experiential learning activities, thereby strengthening self-confidence and reducing fear of failure. Generative AI further expands the entrepreneurial opportunity space through combinational creativity, allowing aspiring entrepreneurs to access strategic perspectives and innovative solutions that were previously available primarily to large organizations with extensive resources.

Moreover, continuous interaction with AI systems through a process of learning-by-conversing enhances critical-thinking skills and improves decision-making capabilities under conditions of uncertainty. Such interactions encourage reflective learning, facilitate opportunity recognition, and strengthen entrepreneurs' capacity to evaluate alternative courses of action. Consequently, AI not only serves as a technological tool but also functions as a cognitive development mechanism that supports the successful transition from entrepreneurial intention to sustained entrepreneurial behavior, ultimately contributing to more effective market entry and venture growth.

V. Psychological Barriers, Risks, and Ethical Challenges

Although Artificial Intelligence (AI) provides substantial technological stimuli and opportunities for entrepreneurial development, its growing presence also generates significant psychological pressures and barriers for many aspiring entrepreneurs. Among these challenges, technology anxiety emerges as a particularly influential negative moderating factor capable of weakening the relationship between technology exposure and entrepreneurial identity aspiration. Individuals who perceive AI as excessively complex or fear being replaced by intelligent systems are more likely to avoid or underutilize these technologies, thereby limiting their ability to exploit opportunities within the digital economy. Consequently, technology anxiety may hinder the development of entrepreneurial confidence and reduce the likelihood of engaging in entrepreneurial activities.

Moreover, excessive reliance on automated systems can give rise to the phenomenon of cognitive offloading, whereby individuals increasingly delegate cognitive tasks to technological tools. While such delegation may improve short-term efficiency, it may simultaneously erode independent problem-solving capabilities, critical thinking skills, and entrepreneurial intuition—qualities that are essential for navigating uncertainty and complexity in volatile, uncertain, complex, and ambiguous (VUCA) environments. Over time, excessive dependence on AI-generated recommendations may weaken entrepreneurs' capacity to evaluate information critically and make autonomous strategic decisions.

Ethical concerns and algorithmic bias further contribute to psychological tensions during the formation of entrepreneurial intentions. The increasingly blurred boundary between the use of AI as a creative assistant and AI-assisted plagiarism raises important questions regarding legitimacy, authenticity, and academic integrity in entrepreneurial innovation processes. Such concerns are particularly relevant in the context of idea generation, business planning, and content creation, where entrepreneurs may struggle to determine the appropriate balance between technological assistance and original human contribution.

In addition, AI systems frequently inherit historical biases embedded within their training datasets, potentially generating discriminatory or unfair recommendations based on gender, ethnicity, culture, or socioeconomic background. These biases may distort opportunity evaluation processes and negatively influence perceptions of entrepreneurial feasibility among women entrepreneurs and other underrepresented groups. As a result, algorithmic bias not only presents a technological challenge but also raises concerns regarding inclusiveness, fairness, and equal access to entrepreneurial opportunities.

Data security and privacy concerns constitute another important psychological barrier to AI adoption. Interactions with large-scale Generative AI (GenAI) platforms often require users to share information that may be commercially sensitive or intellectually valuable. Consequently, many entrepreneurs experience a perceived

loss of control over their intellectual assets and proprietary knowledge, creating hesitation toward experimentation and innovation. Such concerns may ultimately reduce trust in AI systems and slow the diffusion of digital entrepreneurial practices.

To overcome these challenges, a sustainable human–AI symbiosis must be built upon the principles of transparency, accountability, and responsible technology governance. Contemporary research increasingly emphasizes that AI should be viewed as a collaborative partner designed to augment uniquely human capabilities—including empathy, strategic reasoning, creativity, and ethical judgment—rather than as a substitute for human agency. In this regard, maintaining critical thinking and epistemic vigilance is essential to avoid the “Copilot Paradox,” whereby the efficiency gains provided by intelligent systems may inadvertently diminish human creativity, curiosity, and independent reasoning.

Ultimately, psychological and ethical risk management should become an integral component of entrepreneurial strategy in the digital era. Future digital ventures must cultivate not only technological competence but also cognitive resilience, ethical awareness, and reflective decision-making capabilities to ensure that AI serves as a catalyst for sustainable entrepreneurial development rather than a source of dependency or unintended harm.

VI. Discussion and Behavioral Innovation Recommendations for Digital Entrepreneurship

Promoting digital entrepreneurship in the era of Artificial Intelligence (AI) requires a systemic strategy that balances the enhancement of technological competencies with the cultivation of psychological adaptability. Educational institutions, entrepreneurship centers, and business incubators should develop two-stage training programs designed to support both cognitive and behavioral dimensions of entrepreneurial development. The first stage should focus on establishing a solid understanding of the opportunities, limitations, and risks associated with AI technologies, while the second stage should emphasize the development of entrepreneurial confidence through experiential learning projects conducted within low-risk environments. Such an approach can facilitate the gradual transformation of technological knowledge into entrepreneurial action.

The development of AI competence, often conceptualized as AI Intelligence Quotient (AI IQ), should extend beyond the mere ability to operate AI tools. Instead, it should encompass ethical awareness, critical evaluation skills, and the capacity to interact responsibly with AI-generated outputs. Future entrepreneurs must be capable of assessing the reliability, transparency, and potential biases of AI systems while maintaining independent judgment and strategic decision-making capabilities. In this regard, AI literacy should be viewed as a multidimensional competency integrating technical proficiency, ethical reasoning, and cognitive resilience.

Policy interventions should likewise prioritize the reduction of technology anxiety through targeted entrepreneurial counseling programs and the creation of collaborative learning communities in which individuals can exchange experiences, share best practices, and develop confidence in utilizing emerging technologies. Such supportive environments can mitigate uncertainty and foster a more positive psychological orientation toward innovation and entrepreneurial risk-taking.

Furthermore, the establishment of secure “AI experimentation zones” can provide entrepreneurs with protected environments in which to test and refine AI-enabled business solutions without exposing critical business operations to excessive technological or financial risks. Complementary initiatives aimed at strengthening data security, privacy protection, and intellectual property safeguards would further enhance entrepreneurs’ willingness to integrate AI into their core business models and innovation processes.

At the same time, policymakers and technology developers should implement robust mechanisms to promote diversity, inclusiveness, and bias mitigation in AI development and deployment. Ensuring that AI systems provide fair and equitable opportunities for individuals regardless of gender, ethnicity, socioeconomic background, or cultural identity is essential for fostering inclusive digital entrepreneurship ecosystems. Such measures can help create conditions under which entrepreneurial aspirations are determined by capability and innovation rather than constrained by systemic biases embedded within technological systems.

Ultimately, the future of Human–AI symbiosis should be guided by human-centered values that prioritize societal well-being, ethical responsibility, and sustainable value creation. Rather than serving exclusively as instruments for maximizing short-term profits, AI technologies should be leveraged to support broader social and economic development objectives. By aligning technological advancement with human flourishing, digital entrepreneurship can evolve into a transformative force capable of generating long-term value for individuals, organizations, and society as a whole.

VII. Conclusion

The synthesis of existing research confirms that psychological mechanisms play a pivotal role in transforming the potential of Artificial Intelligence (AI) into actual digital entrepreneurial behaviors. AI should not be viewed merely as a technological tool; rather, it functions as a powerful psychological agent that shapes entrepreneurial identity, enhances self-confidence, and reduces cognitive barriers that often impede entrepreneurial action. Through its capacity to support learning, opportunity recognition, decision-making, and

problem-solving, AI significantly influences the psychological processes that underpin entrepreneurial intentions and venture creation.

Nevertheless, the successful translation of AI-enabled potential into entrepreneurial outcomes depends largely on entrepreneurs' ability to manage critical psychological barriers, including technology anxiety and excessive cognitive dependence on intelligent systems. While AI can facilitate efficiency and reduce uncertainty, overreliance on automated technologies may undermine independent thinking, entrepreneurial intuition, and long-term capability development. Consequently, achieving sustainable entrepreneurial success requires a careful balance between leveraging technological assistance and maintaining human agency, critical judgment, and cognitive autonomy.

The future of digital entrepreneurship lies in the development of a sustainable Human–AI symbiosis in which individuals remain the primary decision-makers while utilizing AI as a catalyst for creativity, innovation, and strategic action. Such a relationship must be grounded in critical thinking, ethical responsibility, and a commitment to continuous learning in order to ensure that technological advancement contributes positively to both individual and societal development.

Ultimately, equipping future generations of entrepreneurs with both advanced AI capabilities and strong psychological resilience will be essential for building an intelligent, inclusive, human-centered, and prosperous digital economy. By fostering a harmonious integration of technological competence, entrepreneurial mindset, and ethical awareness, societies can maximize the transformative potential of AI while ensuring that innovation remains aligned with broader human and economic well-being.

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