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ARTIFICIAL INTELLIGENCE AND YOUTH ENTREPRENEURSHIP IN THE DIGITAL ECONOMY

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ABSTRACT

Artificial intelligence (AI) is transforming the digital economy by creating new opportunities for innovation, business development, and entrepreneurial growth among young people. AI-powered technologies, including generative AI, machine learning, predictive analytics, chatbots, and automated marketing systems, enable young entrepreneurs to identify market opportunities, improve decision-making, reduce operational costs, and develop innovative products and services. The integration of AI into entrepreneurship is particularly significant for youth because digital platforms provide alternative pathways to business creation, self-employment, and participation in global markets. This study examines the role of artificial intelligence in youth entrepreneurship, focusing on its influence on entrepreneurial intentions, digital business development, innovation, and economic participation. It also explores the challenges associated with AI adoption, including limited digital literacy, unequal access to technology, financial constraints, privacy concerns, and ethical issues. The study adopts a qualitative approach based on a review and thematic analysis of existing scholarly literature on artificial intelligence, digital entrepreneurship, and youth entrepreneurial development. Existing research indicates that AI can strengthen entrepreneurial competencies and support business innovation, while its benefits depend on technological accessibility, appropriate training, responsible use, and supportive entrepreneurial ecosystems. The study highlights the importance of integrating AI education, digital skills development, and entrepreneurship training to empower young people in the digital economy.

KEYWORDS: *Artificial intelligence, youth entrepreneurship, digital economy, digital entrepreneurship, generative AI, entrepreneurial intention, technological innovation, digital skills.*

INTRODUCTION

The rapid development of artificial intelligence (AI) has significantly transformed the digital economy by changing how businesses operate, compete, innovate, and create value. AI technologies are increasingly used in business planning, market research, customer communication, financial forecasting, product development, and digital marketing. These developments have created new possibilities for young people who want to establish businesses, develop innovative services, or participate in online markets. Unlike traditional entrepreneurship, which may require substantial investment in physical infrastructure, digital entrepreneurship allows individuals to use online platforms and technology-enabled resources to develop business ideas and reach customers. AI further expands these possibilities by providing tools that can support business activities that previously required considerable time, specialized knowledge, or financial resources. Bell and Bell (2023) discussed the implications of generative AI for entrepreneurship education, highlighting its relevance to entrepreneurial learning and business development. Similarly, the Organisation for Economic Co-operation and Development (OECD, 2024) emphasized the importance of digital transformation, technological innovation, digital

skills, and responsible technology adoption for economic development.Youth entrepreneurship has become an important component of economic development because young entrepreneurs can contribute to employment generation, innovation, competition, and the development of new products and services. However, young people frequently encounter difficulties when establishing businesses, including limited financial resources, insufficient business experience, restricted access to professional networks, and uncertainty about market demand. Artificial intelligence can help address some of these challenges by offering accessible tools for generating business ideas, analyzing customer preferences, preparing promotional content, and supporting routine administrative activities. For example, a young entrepreneur can use AI-based applications to identify potential customer groups, develop a preliminary business plan, create product descriptions, and evaluate possible marketing strategies. Research by Herani and Angela (2025) examined the opportunities and challenges associated with ChatGPT adoption among Indonesian youth pursuing digital entrepreneurship. Their study demonstrates the relevance of perceived usefulness, performance expectations, and the effort required to use AI when considering its contribution to youth entrepreneurial activities.The relationship between AI and entrepreneurship is also closely connected with entrepreneurial education and the development of digital competencies. Young people need more than access to digital tools; they also require the ability to evaluate information, recognize business opportunities, communicate effectively, understand customer needs, and make responsible decisions. AI-supported learning environments may help students develop entrepreneurial knowledge by providing explanations, feedback, business simulations, and assistance with developing business models. Somià and Vecchiarini (2024) explored the influence of AI on students' entrepreneurial competencies and examined the use of ChatGPT in entrepreneurship-related learning activities. Likewise, Zulfiqar et al. (2025) investigated how AI-powered education influences university students' entrepreneurial attitudes and intentions in Pakistan. These studies provide a foundation for understanding how AI can contribute to entrepreneurial learning, although the extent to which educational benefits translate into successful business creation requires further examination.Despite its potential advantages, AI adoption does not automatically guarantee entrepreneurial success. Young entrepreneurs may face barriers such as inadequate internet access, limited technological knowledge, the cost of advanced tools, concerns about data privacy, and difficulties verifying AI-generated information. Furthermore, excessive reliance on automated systems may reduce independent evaluation or produce inaccurate business recommendations. The unequal distribution of digital resources can also widen existing differences between young people who have access to technology and those who do not. Barra et al. (2024), in their study of Pakistani higher education students, examined the relationship between digital skills, gender differences, technology adoption, and entrepreneurial orientation. Their research highlights the importance of digital capabilities and equitable technological access in shaping entrepreneurial opportunities. These concerns indicate that AI-driven entrepreneurship should be considered within a broader social, educational, and economic context rather than solely as a technological development.

The importance of examining AI and youth entrepreneurship therefore lies in understanding both the opportunities created by intelligent technologies and the conditions required for their effective adoption. Although existing research has investigated AI-supported entrepreneurial education, digital entrepreneurship intentions, and technology adoption, further synthesis is needed to understand how these factors collectively influence youth entrepreneurial development. The present study addresses this need by examining the role of artificial intelligence in business opportunity recognition, innovation, operational efficiency, entrepreneurial competencies, and digital market participation. It also considers the limitations that may prevent young entrepreneurs from benefiting equally from AI-based technologies. Through a qualitative review of existing literature, the study aims to provide a structured understanding of how AI can support youth entrepreneurship in the digital economy and identify practical implications for educational institutions, policymakers, and young business founders.

RESEARCH OBJECTIVES

1. To examine the role of artificial intelligence in promoting youth entrepreneurship and digital business development in the digital economy.
2. To analyze the influence of AI technologies on entrepreneurial competencies, innovation, business opportunities, and operational efficiency among young entrepreneurs.
3. To identify the major challenges associated with AI adoption and explore strategies for promoting inclusive and responsible AI-driven youth entrepreneurship.

RESEARCH QUESTIONS

1. How does artificial intelligence influence youth entrepreneurship and digital business development in the digital economy?
2. In what ways do AI technologies affect entrepreneurial competencies, innovation, business opportunities, and operational efficiency among young entrepreneurs?
3. What major challenges do young entrepreneurs face in adopting AI technologies, and what strategies can support inclusive and responsible adoption?

LITERATURE REVIEW

Artificial intelligence has emerged as an important technological resource for entrepreneurship because it can support information processing, opportunity identification, business planning, and decision-making. The increasing availability of generative AI applications has made it possible for aspiring entrepreneurs to obtain assistance with developing business ideas, preparing marketing materials, analyzing customer feedback, and organizing business activities. Bell and Bell (2023) examined entrepreneurship education in the era of generative artificial intelligence and highlighted the implications of these technologies for entrepreneurial learning and the development of business-related capabilities. Their work provides a conceptual foundation for understanding how AI can support the preparation of future entrepreneurs. However, the value of these applications depends on how effectively users evaluate AI-generated information and

integrate it with their own knowledge, experience, and judgment. The OECD (2024) similarly emphasized the significance of digital transformation and technological innovation, while recognizing the importance of skills, responsible adoption, and equitable access to digital resources. These perspectives suggest that AI should be understood as a supportive entrepreneurial resource rather than an independent substitute for human creativity and decision-making.The relationship between artificial intelligence and entrepreneurial competencies has received increasing scholarly attention, particularly in educational settings. Entrepreneurial competencies include opportunity recognition, creativity, problem-solving, planning, communication, and the ability to make decisions under uncertainty. AI-based educational tools can support the development of these competencies by allowing students to explore business scenarios, compare potential strategies, and receive feedback on proposed business models. Somià and Vecchiarini (2024) investigated the influence of artificial intelligence on students' entrepreneurial competencies through an exploratory study involving the use of ChatGPT in entrepreneurship-related tasks. Their research draws attention to the potential of generative AI to support learning activities connected with business model development. Similarly, Zulfiqar et al. (2025) examined AI-powered education and its relationship with university students' entrepreneurial attitudes and intentions in Pakistan. Their study provides relevant evidence concerning the integration of AI tools into entrepreneurship education. Nevertheless, developing entrepreneurial competencies through AI-supported learning is not equivalent to establishing a successful business, and the long-term effects of these educational interventions require further investigation.AI adoption among young people is also influenced by their perceptions of the usefulness, accessibility, and practical value of technology. Herani and Angela (2025) explored the relationship between generative AI adoption and youth digital entrepreneurship in Indonesia, focusing on perceived usefulness, performance expectations, and the effort involved in using AI applications. Their research indicates that young entrepreneurs' responses to AI cannot be explained simply by whether a tool is easy to use; its perceived contribution to future business performance also matters. This perspective is important because young people may be more willing to invest time in learning complex technologies when they believe that these technologies can improve business outcomes. However, limited technical knowledge, uncertainty about the reliability of AI-generated recommendations, and the absence of practical training may discourage adoption. Consequently, effective AI entrepreneurship initiatives should combine access to digital tools with demonstrations, practical exercises, business mentoring, and opportunities to develop independent problem-solving skills.

Another important area of research concerns digital inequality and the unequal distribution of entrepreneurial opportunities. AI applications may lower some barriers to business development, but their benefits are not necessarily available to all young people. Differences in internet connectivity, device availability, educational background, financial resources, and digital literacy can influence the extent to which individuals benefit from intelligent technologies. Barra et al. (2024) examined the relationship between the digital divide, gender differences, technology adoption, and entrepreneurial orientation among Pakistani higher education students. Their findings highlight the importance of digital skills and perceptions of technological capabilities in

shaping students' willingness to use digital technologies for entrepreneurship. This research is particularly relevant to developing economies, where technological access and educational opportunities may vary substantially across communities. Young women, rural entrepreneurs, and individuals with limited financial resources may require additional training and institutional support to benefit from AI-enabled business opportunities. Therefore, inclusive entrepreneurship policies should address both technological availability and the capabilities required to use technology effectively.The growing importance of AI also creates opportunities to improve business operations and develop innovative digital products and services. Young entrepreneurs can use AI-based tools to organize customer inquiries, generate product descriptions, personalize promotional messages, analyze market information, and automate repetitive tasks. These applications may allow small businesses to allocate more time to product improvement, customer relationships, and strategic planning. Zulfiqar et al. (2025), in their study of AI-enabled tools and aspiring digital entrepreneurs, examined how AI capabilities and digital training relate to entrepreneurial behavior and resource utilization. Their work contributes to understanding the relationship between AI-supported activities, resource constraints, and digital business development. However, automation must be accompanied by human oversight, particularly when business decisions involve financial risks, customer privacy, or sensitive personal information. AI-generated market assessments may be incomplete or inaccurate, and automated promotional content may fail to reflect customers' actual needs. The literature therefore supports a balanced approach in which technological efficiency is combined with human judgment, verification, and responsible management.The emerging literature demonstrates that AI and youth entrepreneurship are connected through several complementary processes, including entrepreneurial education, technology adoption, digital skills development, business innovation, and access to digital markets. Existing studies provide valuable insights into individual aspects of this relationship, but differences in research settings, samples, and analytical approaches make it difficult to generalize all findings across countries and entrepreneurial sectors. For example, research involving university students may not fully represent young people who operate informal businesses, work independently, or lack access to higher education. Similarly, studies examining entrepreneurial intentions do not necessarily establish whether AI adoption leads to business survival, increased income, or employment creation. The present study addresses this broader issue by synthesizing existing research on the opportunities and limitations of AI-enabled youth entrepreneurship. It focuses on the conditions under which AI may support entrepreneurial development and the educational, technological, and institutional measures needed to make these opportunities more accessible and sustainable.

METHODOLOGY

The study adopts a qualitative research approach based on a review of existing scholarly literature concerning artificial intelligence, youth entrepreneurship, and the digital economy. Relevant academic publications were identified through Google Scholar and publisher platforms, with particular attention to research published between 2023 and 2026. The literature selection focused on studies addressing AI adoption, generative AI, entrepreneurial competencies, digital

business development, entrepreneurship education, digital inequality, and technology-enabled innovation. Relevant research articles and reports were examined to identify recurring concepts, research findings, and differences in scholarly perspectives. The selected literature was then organized according to its relevance to the research objectives and questions. As the study relies on existing publications rather than newly collected participant data, it does not claim to present original survey responses or experimental results. The methodological approach provides a basis for synthesizing current knowledge and identifying areas requiring further empirical investigation.

RESEARCH DESIGN

The research uses a qualitative literature-based design to explore how artificial intelligence influences youth entrepreneurship in the digital economy. This design is appropriate because the topic involves multiple interconnected dimensions, including technological adoption, entrepreneurial learning, business innovation, digital inclusion, and responsible technology use. The study examines relevant publications to understand how AI applications are being incorporated into entrepreneurial activities and how researchers explain their potential benefits and limitations. The literature is considered in relation to the study's three objectives, allowing the analysis to connect technological opportunities with entrepreneurial competencies and structural barriers. The design is interpretive and descriptive rather than experimental because it seeks to develop an integrated understanding of existing evidence instead of testing a newly collected dataset. The review does not claim to be a systematic review unless a reproducible search protocol and formal screening process are conducted.

DATA ANALYSIS

The data analysis is based on a thematic interpretation of the selected scholarly literature. Relevant findings and arguments were organized into major themes, including AI-enabled business development, entrepreneurial competencies, innovation and operational efficiency, technology adoption, digital inequality, and responsible AI use. Each publication was examined to identify its principal research focus, methodological approach, reported findings, and contribution to understanding youth entrepreneurship. Similar findings were grouped together, while differences in research contexts and conclusions were considered to avoid treating all studies as directly comparable. For example, research on entrepreneurial education was examined alongside studies of digital business intentions to distinguish improvements in learning and entrepreneurial attitudes from actual business outcomes. The analysis also considered the relationship between technological opportunities and barriers such as limited digital skills, unequal access, privacy concerns, and dependence on automated systems.The identified themes were then interpreted in relation to the three research questions. The first theme examined how AI can support digital business development and entrepreneurial activities. The second considered the ways AI may influence entrepreneurial competencies, innovation, opportunity recognition, and operational efficiency. The third focused on barriers to adoption and potential strategies for promoting inclusive and responsible entrepreneurship. Evidence from studies such

as Herani and Angela (2025), Barra et al. (2024), and Zulfiqar et al. (2025) was considered in relation to these themes. The analysis remained qualitative and descriptive, without statistical hypothesis testing or the calculation of new quantitative results. Consequently, the findings represent a synthesis of existing research rather than statistically verified effects produced by the present study.

FINDINGS

The literature review indicates that artificial intelligence is creating new possibilities for youth entrepreneurship by providing accessible support for business planning, market research, customer communication, digital marketing, and the development of innovative products and services. AI-powered tools may help young entrepreneurs organize business information, generate initial ideas, explore customer needs, and improve the efficiency of routine activities. These capabilities can be particularly valuable for individuals and small businesses operating with limited financial and human resources. The literature suggests that AI can reduce some practical barriers to entering digital markets, although the extent of its contribution depends on the quality of the tools, the entrepreneur's skills, and the nature of the business. These findings are consistent with the broader discussion of generative AI and entrepreneurship education presented by Bell and Bell (2023).A second finding concerns the relationship between AI-supported education and entrepreneurial competencies. Existing research indicates that AI tools can support entrepreneurial learning by assisting students with business model development, problem-solving, idea generation, and the evaluation of alternative business strategies. Somià and Vecchiarini (2024) examined the use of ChatGPT in entrepreneurship-related learning, while Zulfiqar et al. (2025) investigated AI-powered education and entrepreneurial attitudes among university students in Pakistan. Together, these studies suggest that AI can serve as a useful educational resource for aspiring entrepreneurs. However, the development of entrepreneurial intentions and competencies should not be interpreted as direct evidence of business success. Practical experience, market knowledge, independent judgment, and the ability to respond to uncertainty remain important components of entrepreneurship.The review further indicates that the adoption of AI depends on young entrepreneurs' perceptions of its usefulness and their ability to apply it effectively. Herani and Angela (2025) examined how performance expectations, perceived usefulness, and the effort associated with AI adoption relate to youth digital entrepreneurship. This research highlights the importance of understanding how young people evaluate AI in relation to their business goals. If entrepreneurs believe that a tool can improve productivity or support business development, they may be more willing to learn how to use it. Nevertheless, technical complexity, limited training, and uncertainty about the accuracy of AI-generated information may restrict its effective application. Therefore, AI adoption requires not only access to technological applications but also appropriate guidance and opportunities to develop practical digital competencies.Another important finding is that the benefits of AI-driven entrepreneurship may be distributed unequally. Young people with reliable internet access, suitable devices, relevant education, and sufficient digital skills are generally better positioned to explore AI-based business opportunities than those facing technological and economic barriers.

Barra et al. (2024) highlighted the relationship between digital skills, technology adoption, gender differences, and entrepreneurial orientation among Pakistani higher education students. This research reinforces the importance of considering digital inclusion when examining AI and youth entrepreneurship. Without suitable training, affordable access, and institutional support, technological progress may reinforce existing inequalities rather than create equal opportunities. The literature therefore indicates that inclusive entrepreneurship initiatives should consider the needs of young people from different educational, economic, and geographical backgrounds.

The analysis also identifies responsible technology use as an important condition for sustainable AI-enabled entrepreneurship. Although AI can support efficiency and innovation, its outputs may contain inaccuracies, reflect biases, or fail to account for local market conditions. Business owners must also consider the protection of customer information, the security of digital transactions, and the ethical use of automated decision-making systems. Excessive dependence on AI may weaken the quality of business decisions when entrepreneurs accept automated recommendations without verification. The findings therefore suggest that AI should complement rather than replace human judgment, creativity, and accountability. Digital entrepreneurship education should include practical guidance on verifying information, protecting personal data, evaluating outputs, and recognizing the limitations of automated systems.Overall, the reviewed literature suggests that AI can contribute to youth entrepreneurship through improved access to business support, entrepreneurial learning, digital innovation, and operational efficiency. However, these benefits are conditional rather than automatic. Digital skills, effective training, affordable technology, responsible use, and supportive entrepreneurial ecosystems influence whether young people can translate AI capabilities into meaningful business activities. The literature also reveals a need for further empirical research examining whether AI adoption leads to measurable improvements in business creation, survival, employment, and financial performance among young entrepreneurs. These conclusions should be interpreted in light of the qualitative, literature-based design of the present study.

CONCLUSION

Artificial intelligence is becoming an important component of the digital economy and is creating new possibilities for young people interested in entrepreneurship. Through generative AI, machine learning, automated marketing, and data-supported decision-making, aspiring entrepreneurs can access tools that assist with developing business ideas, analyzing markets, communicating with customers, and managing routine operations. These applications may lower some barriers to entrepreneurial entry and allow young people to explore innovative business models with limited resources. The literature examined in this study indicates that AI can also contribute to entrepreneurial learning by helping students develop business plans, examine potential opportunities, and improve their understanding of digital business activities. However, the effectiveness of these technologies depends on how they are used and the extent to which entrepreneurs possess the knowledge and skills needed to evaluate their outputs.The study also concludes that the development of AI-driven youth entrepreneurship requires more than

technological access. Digital literacy, entrepreneurial education, practical training, market awareness, and responsible decision-making are essential for translating technological capabilities into useful business outcomes. Unequal access to internet connectivity, digital devices, educational resources, and financial support can limit the participation of young people in AI-enabled entrepreneurship. Therefore, educational institutions, policymakers, and entrepreneurship-support organizations should work toward providing affordable digital resources, practical AI training, mentoring opportunities, and inclusive business development programs. Particular attention should be given to young people who face geographical, educational, or economic barriers to technology adoption.

Furthermore, responsible AI adoption is essential for maintaining trust, protecting customer information, and supporting sustainable business development. Young entrepreneurs should verify AI-generated information, recognize potential biases, protect confidential data, and retain human oversight over important business decisions. AI should be treated as a tool that strengthens entrepreneurial capabilities rather than a substitute for creativity, critical thinking, ethical responsibility, and practical experience. Future research should examine AI adoption among young entrepreneurs across different sectors and socioeconomic contexts, using longitudinal studies and empirical data to investigate business performance, survival, innovation, and employment outcomes. In conclusion, artificial intelligence has considerable potential to support youth entrepreneurship in the digital economy, but its long-term contribution will depend on inclusive access, effective skills development, responsible implementation, and a supportive entrepreneurial environment.

REFERENCES

Barra, C., Grimaldi, M., Muazzam, A., Troisi, O., & Visvizi, A. (2024). Digital divide, gender gap, and entrepreneurial orientation: How to foster technology adoption among Pakistani higher education students? Socio-Economic Planning Sciences, 93, Article 101904.

Bell, R., & Bell, H. (2023). Entrepreneurship education in the era of generative artificial intelligence. Entrepreneurship Education, 6, 229–244.

Herani, R., & Angela, J. (2025). Navigating ChatGPT: Catalyst or challenge for Indonesian youth in digital entrepreneurship? Journal of Entrepreneurship in Emerging Economies, 17(3), 602–628.

Organisation for Economic Co-operation and Development. (2024). OECD digital economy outlook 2024 (Volume 1): Embracing the technology frontier. OECD Publishing.

Somià, T., & Vecchiarini, M. (2024). Navigating the new frontier: The impact of artificial intelligence on students' entrepreneurial competencies. International Journal of Entrepreneurial Behavior & Research, 30(11), 236–260.

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Zulfiqar, S., Feroz, H. M. B., Yi, X., & Huo, C. (2025). From ideas to impact: AI, bricolage, and digital training for aspiring digital entrepreneurs. The International Journal of Management Education

Zulfiqar, S., Sarwar, B., Huo, C., Zhao, X., & Mahasbi, H. U. (2025). AI-powered education: Driving entrepreneurial spirit among university students. The International Journal of Management Education, 23(2), Article 101106.