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Entrepreneurship and Job Creation through Artificial Intelligence

Toktam Parhizkarkhadiv[1], Mehri Houshyaramiri[2], Mohammadali Rajabi Torbehbar[3], Seyed Hossein Alavi[4], Simin Naghibi Masouleh[5], Salar Basiri[6], Ali Farzpourmachiani[7], Adel Safaei[8], Saeed Najafi[9], Elham Aliniadoun[10], Mehdi Farzpourmachiani[11]

[1,3,6,7,8,9,10]*Member of the Club of Innovative Minds of the European Academy of Sciences, Postdoctoral in Entrepreneurship, Technofest Institute of Technology University (TITU), Erquelinnes, Belgium*
[2]*PhD. in Entrepreneurship, Technofest Institute of Technology University (TITU), Erquelinnes, Belgium*
[4]*PhD. in Environmental engineering (Water and Wastewater), Tehran University, Tehran, Iran*
[5]*Member of the Club of Innovative Minds of the European Academy of Sciences, PhD. in International Law, Technofest Institute of Technology University (TITU), Erquelinnes, Belgium*
[11]*Academician of the European Academy of Sciences, Associate Professor in entrepreneurship, department of entrepreneurship, Technofest Institute of Technology University (TITU), Erquelinnes, Belgium*

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ABSTRACT
Artificial intelligence (AI) is revolutionizing entrepreneurship as it generates new entrepreneurial opportunities and alters labor market trends. This review consolidates existing academic literature on AI in entrepreneurial ventures and the generation of new employment opportunities. It explores both the direct and indirect effects of AI on startup formation, job evolution, and workforce trends, emphasizing AI's contribution to innovation, enhanced productivity, and the growth of novel entrepreneurial ecosystems. Additionally, the review addresses challenges such as workforce displacement and regulatory concerns, offering a thorough insight into AI-driven entrepreneurship and its impact on future job creation.

Keywords: Entrepreneurship, Artificial intelligence (AI), startup formation,workforce

I. INTRODUCTION

Artificial intelligence has reached a revolutionary stage that highly impacts entrepreneurship as it drives innovation and gives rise to new employment opportunities, besides automating repetitive tasks. The application of AI in business operations not only raises efficiency but also unlocks unique entrepreneurial prospects that were previously beyond attainment due to the prohibitive costs or complexity (2, 10). This paper synthesizes the available academic literature on the impact of AI on entrepreneurship, with a specific emphasis on employment creation and the redefinition of available jobs.

AI and Entrepreneurship: Conceptual Foundations

AI entails technologies that enable machines to perform tasks requiring human intelligence, such as learning, reasoning, and problem-solving. The broad definitions of AI in empirical studies tend to conceal its specific influences on entrepreneurship, but in most cases, AI acts as an exogenous enabler of new venture creation in the form of uncertainty and entry barrier reduction. Entrepreneurs utilize AI for identifying market opportunities, optimizing operations, and creating products and services. For instance, AI-powered analytics can predict market trends, enabling entrepreneurs to make informed choices and reduce the risks associated with startup businesses. Generative AI tools also assist in creative tasks such as business idea generation and pitches to investors, further supporting entrepreneurial activities (6, 7, 10).

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AI-Induced Job Creation and Transformation in Entrepreneurship

The effect of AI on entrepreneurial context jobs is twofold. As AI replaces routine and repetitive tasks, it also generates "smart jobs" that involve high-level skills like AI verification, data analysis, and machine learning creation. The World Economic Forum predicts that AI and automation will create 69 million new jobs by 2028 worldwide, most of which will be entrepreneurial in nature or demand entrepreneurial expertise (3, 4, 5, 9).

New jobs emerging from AI-driven entrepreneurship include:

- Design and maintenance of AI systems
- AI ethics and compliance careers
- Data analytics and big data consultancy
- AI integration and facilitation services for businesses
- Micro-entrepreneurship based on AI for marketing, funding requests, and content generation.

These jobs often demand reskilling and upskilling, indicating the relevance of labor force development programs to equip entrepreneurs and workers in adapting to the evolving work landscaped (5, 9, 10).

AI's Role in Enhancing Productivity and Economic Growth

AI contributes to productivity increase through the automation of routine tasks, enabling entrepreneurs and workers to focus on complex, innovative, and value-adding activities. Productivity gains of up to 66% have been discovered by researchers using generative AI tools. This productivity gain translates to economic expansion, with projections of AI contributing an estimated $13 trillion to the global economy by 2030 through labor substitution, innovation, and new demand for AI-powered jobs.

Entrepreneurship is benefited by this growth because AI enables innovative products and services to be created, fostering competitive differentiators and new market segments (1, 5, 10).

AI and Entrepreneurial Ecosystems

AI reshapes entrepreneurial ecosystems by facilitating the sharing of information, accelerating innovation diffusion, and the emergence of new ecosystem elements such as AI startups and digital platforms. The geographic importance of entrepreneurship may decline with AI facilitating remote collaboration and digital venture creation, thus broadening the reach of entrepreneurial opportunities beyond traditional hotspots (10).

Challenges and Future Directions

Though beneficial, AI also comes with challenges such as job loss, ethical issues, and regulatory challenges. AI-powered automation will, in some areas, heighten necessity entrepreneurship as they lose jobs, but opportunity entrepreneurship will improve where AI changes instead of replacing work (10). Policymakers will have to juggle the promotion of AI innovation and social safety nets and regulation to make benefits more inclusive (10).

Future research should focus on empirical studies to quantify AI's impact on entrepreneurship and explore how AI regulation influences venture creation and job markets (2, 4, 10).

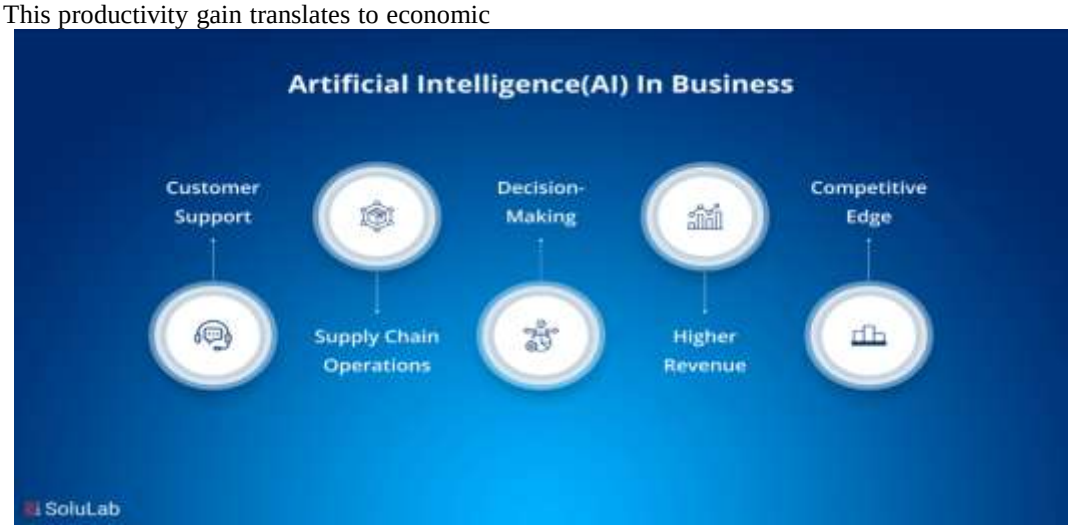

Image 1: Artificial Intelligence in Business. Retrieved from: https://www.solulab.com/ai-in-business/

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AI and the United Nations Sustainable Development Goals (SDGs)

Artificial intelligence (AI) is increasingly acknowledged as a groundbreaking technology with the potential to significantly speed up progress toward achieving the United Nations Sustainable Development Goals (SDGs). The 17 SDGs, set by the UN, cover a wide array of aims such as eliminating poverty, ensuring quality education, combating climate change, providing clean water, and promoting economic growthall designed to create a sustainable future worldwide (11-13). AI's ability to analyze large volumes of data, detect patterns, and automate complex decisions enhances efficiency and drives innovation across various sectors vital to sustainable development. For instance, AI-driven climate models improve weather prediction and early warning systems (SDG 13), and AI-driven applications in agriculture maximize water, fertilizer, and pesticide utilization, thereby improving resource efficiency and minimizing environmental effects (6, 12)(13, 16, 19). In healthcare (SDG 3), AI improves diagnostic accuracy and personalized treatments and leads to better health outcomes. In addition, AI facilitates education (SDG 4) through personalized learning experiences and enhancing access to quality education (12, 14, 15, 16, 17).

Along with environmental and social benefits, AI can spur economic growth (8) by opening up new job avenues and optimizing industrial processes. However, the introduction of AI will need to be managed well to mitigate risks such as algorithmic bias, intrusion into privacy, labor market disruption, and the environmental footprint of energy-intensive AI models (13-15). Ethical governance frameworks fostering transparency, accountability, and inclusivity are needed to ensure fair distribution of AI benefits and congruence with human rights (13, 15).

Scientific analyses have identified AI as an enabler for SDG targets across all goals, highlighting its broad applicability but also noting potential inhibitions for targets, underscoring the need for responsible AI development (5, 19). The United Nations Environment Programme (UNEP) emphasizes AI's role in advancing resource efficiency, circular economy practices, and pollution reduction, which are pivotal for addressing climate change, biodiversity loss, and pollution (16).

The SDGs goals should be incorporated in all aspects of human life from health science to agriculture and businesses. To fully harness AI's potential, interdisciplinary collaboration, public-private partnerships, and capacity-building initiatives are recommended. These include fostering AI literacy, implementing intelligent automation governance, and adopting sustainable AI policies that minimize environmental impacts while maximizing social and economic benefits (15, 17, 18). The United Nations Development Programme (UNDP) is also collaborating with nations to create inclusive AI ecosystems that allow AI solutions to make substantial contributions to sustainable development globally (18, 20, 21).

In conclusion, AI is a powerful tool to accelerate the achievement of the SDGs through enhanced efficiency, innovation, and decision-making in environmental, social, and economic domains. To achieve this potential, an inclusive, ethical approach that addresses risks and promotes equitable access and benefits is necessary, paving the way towards a more sustainable and inclusive future.

II. CONCLUSION

Farzpourmachiani et al. (22) uphold that not every type of AI application in entrepreneurship is profitable and therefore one ought to be choosy when picking business opportunities. This study highlights that AI is a powerful catalyst for entrepreneurship and job creation by transforming traditional functions and facilitating new possibilities. The interaction between AI and entrepreneurship promotes innovation, enhances productivity, and drives economic growth, while also requiring adaptable policies and workforce training. A thorough understanding of AI's diverse effects is essential to fully leverage its potential in building sustainable and inclusive entrepreneurial ecosystems.

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