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ENTREPRENEURSHIP 5.0 AND THE FUTURE OF HUMAN-CENTERED BUSINESS DEVELOPMENT

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Abstract:
This paper examines entrepreneurship in the context of value creation within a human-centered business environment. The study is based on the concept of Entrepreneurship 5.0, which integrates digital technologies, human capabilities, and sustainability principles. The analysis highlights the transition from technology-oriented approaches toward models that place user needs and social expectations at the center of business activity. Digital technologies such as artificial intelligence and data-driven systems support decision processes, while human knowledge and creativity determine their effective application. The paper also addresses the importance of aligning innovation with environmental and social responsibility in order to achieve balanced development. A theoretical model is proposed, which explains the interaction between technological inputs, human factors, and sustainability conditions. The findings indicate that long-term competitiveness depends on the integration of these elements and continuous adjustment to market and stakeholder expectations.

Keywords: *Entrepreneurship 5.0, Human-centered value, Digital transformation, Sustainable entrepreneurship, Business competitiveness*

Introduction

Entrepreneurship has changed under the influence of digital technologies, sustainability requirements, and growing attention to human needs. Earlier approaches focused on efficiency and technological advancement, while current perspectives consider broader aspects of value creation. The concept of Entrepreneurship 5.0 connects technological capabilities with human wellbeing and social expectations [1]. This development aligns with Industry 5.0 and Society 5.0, where economic activity integrates social and environmental objectives [2]. Business models now include user experience, trust, and long-term

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relationships as key elements. Digital transformation affects how entrepreneurial opportunities are identified and developed. Technologies such as artificial intelligence, big data, and digital platforms support information processing and decision making [3, 4]. Digital entrepreneurship connects innovation with new forms of value creation based on connectivity and data exchange [5]. Enterprises adopt digital tools to improve coordination and align operations with strategic goals [6, 7]. Human-centered approaches address limitations of technology-driven models. Human-centered design focuses on user needs, satisfaction, and trust in products and services [8]. Knowledge management relies more on human insight and collaboration [9]. Emotional and social resources influence entrepreneurial processes through communication and understanding of user expectations [10]. Design thinking supports structured development of ideas with continuous feedback [11]. Sustainability and social responsibility are integrated into entrepreneurial strategies. The triple bottom line approach connects economic, environmental, and social outcomes [12]. Sustainable innovation considers resource use and environmental impact [13]. Digital platforms support collaboration in sustainable entrepreneurship [14], while responsible entrepreneurship aligns business performance with social objectives [15].

Interaction between human competences and digital technologies improves decision quality and innovation outcomes [16]. Entrepreneurial resilience depends on adaptation to changing conditions and uncertainty [17]. Education and training support creativity and problem solving [18], while leadership characteristics influence strategic decisions and enterprise performance [19].

1. From technology-driven entrepreneurship to human-centered value creation

Entrepreneurship has shifted from a technology-oriented logic toward a model that places human needs and expectations at the center of value creation. Earlier approaches focused on efficiency, scale, and technical performance, while less attention was given to user experience and social impact. In the context of Entrepreneurship 5.0, business activity aligns technological capabilities with human wellbeing and long-term value [1]. This shift follows developments connected with Industry 5.0 and Society 5.0, where economic activity integrates social and environmental considerations [2]. Human-centered design has become a

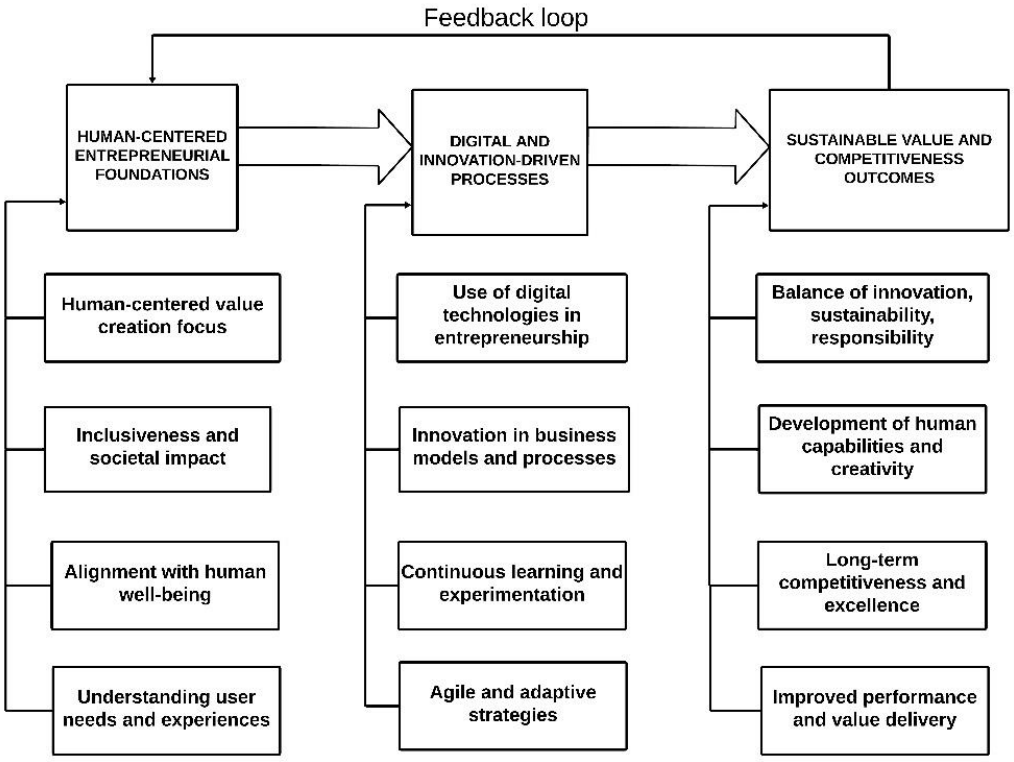
standard approach in shaping products and services, with attention directed toward trust, usability, and satisfaction in digital environments [8]. Knowledge management practices reflect this change through stronger reliance on human insight and collaborative processes [9]. Entrepreneurial processes increasingly depend on emotional and social resources. Empathy, communication, and awareness of user needs contribute to more relevant solutions [10]. Human-centered approaches show stronger outcomes in reducing inefficiencies when compared with purely technology-driven models. Design thinking supports structured problem solving with a focus on user experience and iterative development [11]. Research also highlights the importance of aligning entrepreneurship with sustainable and human-centric innovation principle. Digital technologies represent a key component of Entrepreneurship 5.0, with influence on opportunity recognition, decision-making, and market interaction. Artificial intelligence, big data, and digital platforms reshape how entrepreneurs analyze information and respond to changing conditions [4]. These technologies extend analytical capacity and support more informed decisions [3]. Digital entrepreneurship connects technological innovation with new business models based on connectivity and data exchange [5]. Digital transformation affects strategic and operational processes, which requires alignment between technology adoption and organizational goals. Capability development supported by digital tools improves coordination across business activities [7].

2. Balancing innovation, sustainability, and social responsibility

Entrepreneurship 5.0 requires alignment between innovation, sustainability, and social responsibility. The triple bottom line approach connects economic performance with environmental and social outcomes [12]. Sustainable innovation integrates resource efficiency and long-term value creation [13]. Digital platforms enable new forms of sustainable entrepreneurship, where connectivity supports collaboration and resource sharing. Responsible entrepreneurship links business performance with social innovation and commitment to broader development goals. Corporate entrepreneurship supports the integration of sustainability into organizational strategies. Social responsibility and resilience gain importance under changing market conditions, where digital environments support stakeholder engagement. Entrepreneurial resilience depends on the ability to adapt

to uncertainty and changing conditions. Emotional resources and knowledge integration contribute to more stable performance across different contexts . The interaction between human competences and technological systems defines new forms of entrepreneurial activity. Research indicates that combining human judgment with technological tools improves decision quality and innovation results [16]. Artificial intelligence supports analytical processes, while human input ensures contextual relevance. Leadership characteristics also influence enterprise outcomes, where behavioral factors such as confidence affect strategic decisions [19]. These elements indicate that entrepreneurial success depends on both individual capabilities and organizational processes.

Next, the theoretical model for entrepreneurship in the context of value creation on the human-centered business environment is presented on Picture 1.



Picture 1. *Theoretical model for entrepreneurship in the context of value creation on the human-centered business environment*

The model defines entrepreneurship as a system where human-centered value creation represents the main outcome. The process begins with technological and digital inputs such as data, artificial intelligence, and platforms that provide operational support. These inputs depend on human capabilities for effective use. Knowledge, skills, and experience determine how resources are interpreted and applied in decision processes. Human capabilities connect technology with innovation outcomes and influence the direction of entrepreneurial activity. Organizational context, including structure, culture, and learning processes, supports this interaction and shapes how resources are combined. Sustainability and social responsibility act as guiding conditions that influence decisions and expected outcomes. Entrepreneurial activity aligns innovation with environmental and social objectives, which affects business models and strategies. Feedback from stakeholders and market responses enables continuous adjustment and alignment with external conditions. The final outcome reflects business competitiveness and long-term value based on the combined effect of all elements.

3. Suggestions and guidelines

Based on the analyzed literature and developed model, the following suggestions and guidelines for sustainable value creation are noted:

- Enterprises should align business models with human-centered value principles and clearly define user needs and expectations. Strategic planning needs to include social and experiential aspects alongside economic outcomes.
- Management should integrate digital technologies with human knowledge and judgment in decision processes. Technology adoption needs to follow clear objectives that connect data use with practical business outcomes.
- Enterprises should apply design thinking approaches in product and service development. Iterative testing and feedback collection need to guide improvements and adjustments.
- Enterprises should build a culture that supports collaboration and open communication across departments. Cross-functional teams need to work on joint problem solving and idea generation.

- Enterprises should monitor market changes and stakeholder feedback on a regular basis. Data collection and analysis need to support timely adjustments in products and services.

4. Conclusion

Entrepreneurship 5.0 is defined through the integration of human-centered value, digital technologies, and sustainability principles. Alignment between these elements leads to more stable business outcomes and broader societal benefits. The transition from technology-oriented approaches toward human-centered models changes how value is created and delivered. Attention to user needs and social expectations results in solutions that are more relevant and accepted. Digital technologies support entrepreneurial processes through improved access to information and structured decision support. Their contribution depends on alignment with human knowledge and organizational capabilities. Integration of artificial intelligence and digital platforms extends analytical capacity, while human input ensures contextual understanding and appropriate application. Sustainability and social responsibility are integrated within entrepreneurial strategies and influence long-term outcomes. Enterprises that consider environmental and social aspects achieve more balanced development and stronger legitimacy. Human capabilities and creativity determine how technological resources are applied in practice. Knowledge, experience, and adaptability affect the quality of decisions and innovation outcomes.

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