

DIGITAL TOOLS AS DRIVERS OF MICRO-INNOVATIONS IN SME BUSINESS MODELS IN THE CONTEXT OF ENTREPRENEURSHIP 5.0

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ABSTRACT

This study examines how digital tools support micro-innovations in SME business models within the context of Entrepreneurship 5.0. The research focuses on the interaction between digital technological infrastructure, organizational integration of digital tools, and business model outcomes. Digital technologies such as cloud systems, CRM platforms, data analytics tools, e-commerce platforms, and digital communication systems allow SMEs to introduce small operational and strategic adjustments. These technologies influence internal workflow organization, digital marketing activities, data-driven decision-making, and collaboration with customers and partners. A theoretical model is proposed that connects three main elements: digital technological infrastructure, organizational integration processes, and micro-innovation outcomes in SME business models. The model explains how digital tools support adjustments in value creation activities, value delivery mechanisms, revenue structures, and customer interaction practices. Incremental changes supported through digital technologies contribute to improved operational flexibility and stronger responsiveness to market conditions. The framework provides a structured basis for examining how SMEs integrate digital technologies and gradually adjust their business models within the Entrepreneurship 5.0 context.

Key words: Entrepreneurship 5.0, SMEs, Digital tools, Micro-innovation, Business models

INTRODUCTION

Small and medium-sized enterprises operate in business environments characterized by strong competition, technological change, and shifting customer expectations. Digital technologies have become increasingly present in everyday business activities, influencing how organizations communicate with customers, manage internal processes, and develop new forms of value creation. Within this context, the concept of Entrepreneurship 5.0 has emerged as an approach that combines technological development with human-centered, sustainable, and socially aware entrepreneurial practices. This perspective considers digital technologies not only as technical tools but also as instruments that support new ways of organizing business activities and interacting with stakeholders. Digital transformation in SMEs often begins with the adoption of relatively simple digital solutions such as cloud services, communication platforms, digital marketing tools, and data management systems. This combination of technological capabilities enables SMEs to explore new methods of delivering value without the need for large-scale structural changes. The development of Entrepreneurship 5.0 highlights the importance of combining digital capabilities with responsible and human-centered business practices, where technological solutions support collaboration, transparency, and long-term sustainability.

Incremental innovation represents a common strategy for SMEs due to the relatively low level of risk compared to large transformation initiatives. Micro-innovations refer to small modifications in business activities that lead to measurable improvements in efficiency, customer satisfaction, or revenue generation. Digital tools provide practical support for such changes because they allow companies to experiment with new solutions in a controlled manner. Customer relationship

management systems, digital marketing platforms, and e-commerce applications enable organizations to test new approaches to communication and service delivery. Data collected through these tools can be analyzed to identify patterns and opportunities for improvement. Continuous adjustments supported by digital technologies therefore create an environment in which business models evolve through a series of smaller innovations rather than through major structural changes.

Business models consist of several interconnected elements that define how an organization creates, delivers, and captures value. Digital tools influence each of these elements in different ways. Value creation activities may change through the use of digital production systems, collaborative platforms, and information management tools. Understanding how digital tools influence micro-innovations in SME business models represents an important step in examining the broader transformation of entrepreneurial activity under the Entrepreneurship 5.0 concept.

The paper is guided by the following research questions:

- How do digital tools support the development of micro-innovations in SME business models within the context of Entrepreneurship 5.0?
- How does the integration of digital tools into organizational processes influence value creation, value delivery, and revenue structures in SME business models?

LITERATURE ANALYSIS

Small and medium-sized enterprises operate in environments shaped by technological development and digital connectivity. Digital technologies are integrated into organizational structures, communication practices, and decision-making processes (Melo et al., 2023; Santini et al., 2023). Entrepreneurship 5.0 connects technological progress with human-centered values, sustainability, and responsible business behavior (Rajagopal, 2026). SMEs rely on flexibility and adaptability due to limited resources. Digital tools allow adjustments in processes, communication, and service delivery without large investments (Kahveci, 2025; Vrontis et al., 2022). This situation has increased interest in how digital technologies influence entrepreneurial activities and support gradual changes in business models. Digital transformation in SMEs develops through gradual adoption rather than sudden structural change (Wang & Esperança, 2023). Organizations integrate tools such as cloud platforms, communication systems, and data applications into existing workflows. These technologies improve information organization, coordination, and interaction with customers and partners (Mkhize et al., 2025). They enable data collection related to customer preferences and operational performance. Access to such information supports more informed decisions and adjustment of strategies according to market conditions (Vo Van et al., 2026).

Entrepreneurship 5.0 introduces a broader perspective in which digital tools are used for collaboration, transparency, and sustainability (Rajagopal, 2026). SMEs adjust internal responsibilities and external relationships during digital adoption. Online platforms enable direct customer interaction and strengthen connections with partners and networks (Martín-Peña et al., 2024). This connectivity supports knowledge exchange and organizational learning (Trabert et al., 2022). Digital adoption becomes linked with gradual adjustment of business practices. Micro-innovations emerge as incremental changes within this process. These changes affect communication methods, pricing, distribution channels, and internal coordination without major structural transformation (Curado et al., 2022; Yusof et al., 2023). Digital marketing platforms, online services, and customer relationship systems support experimentation and refinement of business practices (Binsaeed et al., 2023). Feedback collected through digital channels guides further adjustments. Digital tools support continuous experimentation in SME environments. Organizations test communication strategies, service formats, and product offerings through digital platforms. Customer responses can be observed in short periods. E-commerce systems and analytics tools provide insights into customer behavior and preferences (Eisape, 2022). These insights support gradual adjustments in business models and alignment with market expectations. Digital platforms also contribute to the development of interconnected business ecosystems, where SMEs interact with multiple stakeholders and co-create value (Martín-Peña et al., 2024). Internal organizational processes are also affected by digital

technologies. Project management platforms, communication tools, and shared data systems improve coordination and access to information (Santini et al., 2023). Improved coordination leads to adjustments in workflows, responsibilities, and time management. Small improvements accumulate over time and contribute to better performance (Heredia et al., 2022). Digital technologies therefore support micro-innovations within internal operations. Digital technologies influence relationships with external stakeholders. Online platforms enable direct communication with customers through social media, feedback systems, and service interfaces. Organizations collect information about customer satisfaction and expectations (Binsaeed et al., 2023). This information supports adjustments in product design, service delivery, and pricing. Continuous interaction with customers becomes a source of incremental change.

Access to digital technologies lowers barriers for experimentation. Many tools are available through subscription or cloud-based models with modest costs (Mkhize et al., 2025). SMEs can test solutions without large resource commitments. This supports ongoing learning. Employees gain experience with digital tools, while managers observe effects on performance. Organizations gradually develop capabilities related to digital practices (Atobishi et al., 2024). Business models in SMEs evolve through incremental adjustments supported by digital tools. Digital technologies influence value creation, delivery, and revenue structures (Costa Melo et al., 2023). Internal processes improve through better coordination and data access. Online channels extend market reach and change distribution practices (Haini, 2026). Digital payment systems and service platforms enable new revenue approaches. Continuous adjustments supported by data allow SMEs to remain aligned with market conditions and customer expectations (Yuwono et al., 2025).

Based on the analyzed model, a model for driving micro-innovations in SME business models in the context of Entrepreneurship 5.0.

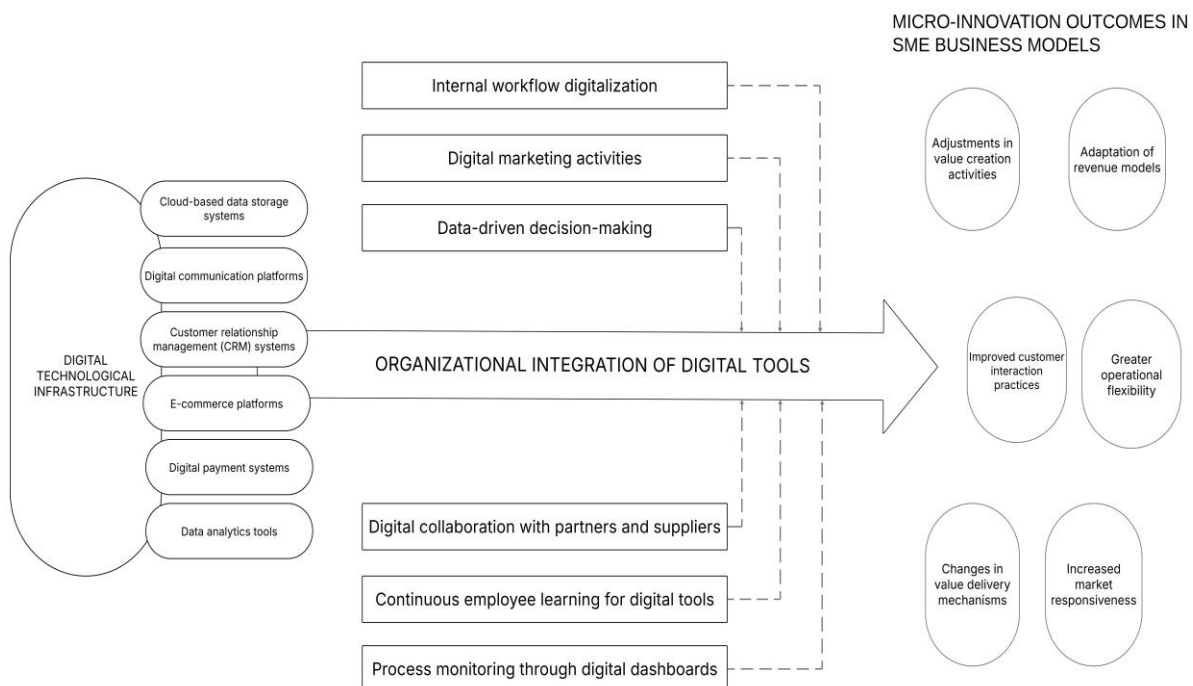


Figure 1: Model for driving micro-innovations in SME business models in the context of Entrepreneurship 5.0.

Digital technological infrastructure provides the technological environment through which SMEs introduce incremental changes in their business models. Cloud-based data storage systems allow centralized access to operational and customer information, which supports internal workflow digitalization and coordination among employees. Digital communication platforms influence internal collaboration and interaction with customers and partners. These platforms support digital marketing

activities and generate feedback that informs data-driven decision-making. Customer relationship management systems collect and organize customer data, which helps companies adjust marketing strategies and improve customer interaction practices. Data analytics tools process information from sales, marketing campaigns, and customer behavior, allowing managers to interpret market patterns and modify operational decisions. E-commerce platforms influence value delivery mechanisms because products and services can be distributed through online channels. Digital payment systems support electronic transactions and provide data about purchasing patterns, which may lead to adjustments in revenue models. Organizational integration processes translate these technological resources into everyday business practices. Internal workflow digitalization organizes operational activities, while digital marketing activities support communication with targeted customer segments. Digital collaboration with partners improves coordination across supply networks, and continuous employee learning improves the effective use of digital tools. Process monitoring through digital dashboards provides information about performance indicators, which supports incremental adjustments. These interactions contribute to micro-innovation outcomes such as adjustments in value creation activities, modified revenue structures, improved customer interaction practices, greater operational flexibility, and increased market responsiveness.

SUGGESTION AND GUIDELINES

Based on the developed model and analyzed literature, the following strategies and actions for driving micro-innovations in SME business models in the context of Entrepreneurship 5.0. are noted:

- Enterprises can implement cloud-based data storage systems in everyday operations. Centralized data access improves coordination and information sharing.
- Enterprises can introduce customer relationship management systems. These systems organize customer data and support adjustments in marketing and service activities.
- Enterprises can adopt digital marketing tools such as social media platforms and online advertising systems. These tools allow companies to test communication strategies and observe customer reactions.
- Enterprises can introduce e-commerce platforms for digital sales. Online channels expand market reach and generate data about customer demand.
- Enterprises can apply data-driven decision-making practices. Managers can review digital performance indicators before adjusting strategies.
- Enterprises can organize training for employees related to digital tools. Continuous learning improves the effective use of digital technologies.
- Enterprises can monitor performance through digital dashboards. Operational indicators support identification of opportunities for small adjustments.

CONCLUSION

The study examined how digital tools support micro-innovations in SME business models within the context of Entrepreneurship 5.0. The analysis focused on the relationship between digital technological infrastructure, organizational integration of digital tools, and the outcomes that appear through incremental business adjustments. Digital systems such as cloud platforms, customer relationship management systems, analytics tools, e-commerce platforms, and digital communication technologies provide SMEs with accessible resources that allow gradual changes in operational and market activities. These technologies allow organizations to introduce small modifications in internal processes, communication practices, and service delivery methods without major structural transformation.

The first research question addressed how digital tools support the development of micro-innovations in SME business models. The findings indicate that digital technologies provide the technological environment that allows companies to test new operational practices, adjust marketing communication, and reorganize internal workflows. Cloud systems improve access to information, while CRM platforms organize customer data that supports adjustments in service and marketing

activities. Digital analytics tools allow managers to interpret operational indicators and customer feedback, which leads to incremental improvements in organizational decisions and business practices.

The second research question examined how the integration of digital tools into organizational processes influences value creation, value delivery, and revenue structures in SME business models. The analysis shows that digital tools influence several components of the business model through their integration into everyday business activities. Internal workflow digitalization reorganizes value creation activities through improved coordination and information exchange. Digital marketing platforms and communication channels influence value delivery through new forms of customer interaction and online service distribution. E-commerce platforms and digital payment systems allow modifications in revenue structures through digital transactions and alternative pricing formats.

The proposed framework provides a structured understanding of how digital technological infrastructure and organizational integration processes interact to produce micro-innovations in SME business models. The framework can support further research that examines the relationship between digital tool adoption, incremental innovation, and SME competitiveness within the broader Entrepreneurship 5.0 context.

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