Dragana Janeš
University North
Varaždin, Croatia
Email: drjanes@unin.hr
ORCID 0009-0007-2979-5977

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ARTIFICIAL INTELLIGENCE AND BUSINESS MODEL INNOVATION IN ENTREPRENEURIAL MANAGEMENT

Abstract: *Artificial intelligence (AI) is transforming how organizations innovate and redesign business models, yet research connecting AI and business model innovation (BMI) within entrepreneurial management remains fragmented. This paper presents a structured thematic synthesis examining how AI capabilities influence BMI processes, governance mechanisms, and innovation outcomes. Using a systematic synthesis approach grounded in BMI and digital transformation research, the review develops a four-layer integrative framework consisting of AI innovation affordances, managerial governance, organizational capabilities, and business model innovation processes and outcomes. The findings highlight that AI does not automatically generate new business models; instead, strategic value emerges through capability development, governance decisions, and iterative experimentation. By integrating AI readiness, dynamic capabilities, entrepreneurial conditions, as well as broader ecosystem and institutional factors into a layered conceptual model, the study contributes to theory development at the intersection of AI management and entrepreneurial innovation, while offering practical implications for entrepreneurs, SME leaders and policymakers navigating AI-enabled digital transformation.*

Keywords: *Artificial intelligence; Business model innovation; Entrepreneurial management; Digital transformation*

JEL Classification: *jel 1; jel 2; jel 3…*

1. Introduction

Artificial intelligence (AI) is increasingly recognized as a transformative technological force reshaping innovation process, organizational decision-making, and the design of new business models. Rather than functioning solely as a tool for efficiency, AI operates as a general-purpose technology that alters how firms generate, evaluate, and implement innovative ideas. By accelerating experimentation cycles, enabling scalable problem-solving, and supporting data-driven sense-making, AI reshapes how organizations conceptualize value creation and competitive advantage. At the same time, AI adoption introduces managerial tensions, particularly the automation–augmentation paradox (Raisch & Krakowski, 2021), in which technologies simultaneously replace and enhance human work. These tensions require new governance approaches and influence how business models evolve in dynamic environments. Within this broader landscape, AI creates innovation affordances that reshape value creation and experimentation processes.

Within this context, business model innovation (BMI) has emerged as a central concept for understanding how organizations respond to technological disruption and uncertainty. Despite substantial growth in BMI research, the field remains fragmented, with multiple conceptual streams addressing antecedents, processes, and outcomes without full integration. Existing reviews emphasize the need for stronger links between organizational capabilities, innovation processes, and performance implications. Entrepreneurial management provides a particularly relevant lens for examining AI-enabled BMI because entrepreneurial organizations operate under conditions of uncertainty, resource constraints and rapid change that amplify the strategic implications of digital technologies. Empirical studies on SMEs highlight that digitalization, external knowledge search, and experimentation practices shape both the novelty and performance outcomes of business model innovation initiatives.

Although AI and BMI have both attracted growing scholarly attention, research at their inter-

section remains dispersed across innovation management, information systems, and entrepreneurship literature. AI-focused studies often emphasize technological capabilities or readiness factors, whereas BMI scholarship concentrates on structural changes in value creation logic and process-based innovation mechanisms. Consequently, there is limited synthesis explaining how AI-related capabilities translate into concrete business model transformation, particularly within entrepreneurial settings. Moreover, existing research provides only partial insight into the organizational tensions, capability-building challenges, and governance mechanisms that shape AI-enabled innovation during digital transformation.

In addition, AI-enabled business model innovation in entrepreneurial settings is increasingly shaped by broader entrepreneurial ecosystems, including access to digital infrastructure, knowledge networks, institutional support, and collaborative innovation environments. These ecosystem-level conditions influence how entrepreneurs and SMEs access data, talent and external knowledge, thereby affecting their ability to leverage AI capabilities for business model transformation. Despite their importance, such contextual factors remain underexplored in existing research on AI and BMI.

Addressing this gap, this paper develops a structured thematic synthesis of selected studies published between 2015 and 2026 that examine artificial intelligence and business model innovation within entrepreneurial management. Building on this synthesis, the paper develops a four-layer integrative framework that explains how AI innovation affordances, managerial governance, and organizational capabilities interact to shape business model innovation processes and outcomes in entrepreneurial contexts.

2. Conceptual background

Artificial intelligence (AI), business model innovation (BMI), and entrepreneurial management represent three research domains that have developed largely in parallel yet increasingly intersect in the context of digital transformation. The conceptual foundation guiding the review is established by synthesizing key perspectives from the selected studies and clarifying how AI-enabled business model innovation relates to business model change and organizational capabilities.

Business model innovation has evolved into a central concept for explaining how organizations respond to technological disruption and shifting competitive environments. Prior research emphasizes that BMI extends beyond incremental changes in products or services, involving fundamental reconfiguration of value creation, delivery, and capture mechanisms. Existing literature reviews highlight that BMI research can be organized around multiple dimensions, including antecedents, innovation processes, barriers, and performance outcomes. Despite its conceptual richness, the field remains fragmented, with diverse definitions and analytical approaches that complicate cross-study comparison (Foss & Saebi, 2017; Andreini et al., 2022; Huang & Ichikohji, 2023). Integrative perspectives therefore stress the importance of linking organizational capabilities and innovation processes to measurable outcomes in order to advance theoretical clarity.

A process-based understanding of BMI provides an additional lens for examining how technological change unfolds within organizations. Rather than viewing BMI as a single event, process-oriented research conceptualizes innovation as an iterative sequence of experimentation, evaluation, and adaptation (Andreini et al., 2022). This perspective is particularly relevant in entrepreneurial settings, where resource constraints and uncertainty require continuous adjustment of strategic assumptions. Process-based views also highlight the role of managerial decision-making and organizational learning in shaping how business models evolve over time.

Digital transformation research complements BMI scholarship by emphasizing the capability-building mechanisms required to translate technological adoption into strategic renewal. Dynamic capabilities perspectives suggest that firms must develop sensing, seizing, and transforming abilities in order to adapt their business models in rapidly changing environments (Warner & Wäger, 2019; Ritter & Pedersen, 2020; Zhu, 2024). Similarly, digitization capability research highlights how data integration, platform logic, and digital technologies enable new forms of value creation while simultaneously introducing organizational complexity. These capability-oriented frameworks provide an important bridge between technological adoption and business model outcomes, underscoring that AI-enabled business model innovation depends on organizational readiness and strategic alignment rather than technological deployment alone.

Within this broader landscape, AI research introduces a distinct set of managerial and innovation-related considerations. Studies examining AI in

management contexts emphasize that AI reshapes decision-making processes and alters the balance between human judgment and algorithmic automation. The automation–augmentation paradox (Raisch & Krakowski, 2021) illustrates how AI simultaneously enhances and substitutes human work, creating tensions that influence organizational structure, leadership approaches, and innovation governance. Other research conceptualizes AI as a general-purpose innovation technology that accelerates experimentation and knowledge generation, enabling new forms of problem-solving and scalable learning loops (Cockburn et al., 2019; Verganti et al., 2020). In service and marketing contexts, AI has been shown to reconfigure task structures and value delivery mechanisms (Huang & Rust, 2018), thereby influencing how firms design and implement new business models.

Another key concept emerging from AI literature is organizational readiness. AI adoption requires more than technological infrastructure; it involves cultural alignment, managerial capabilities and strategic clarity. Readiness frameworks identify factors such as data availability, leadership support, talent capabilities, and governance structures as prerequisites for successful AI integration (Jöhnk et al., 2021). When viewed through a BMI lens, these readiness dimensions can be interpreted as antecedents that shape the scope and effectiveness of business model innovation.

Taken together, these conceptual streams suggest that AI-enabled business model innovation cannot be fully understood through a single theoretical lens. Instead, it emerges at the intersection of AI-driven innovation mechanisms, organizational capabilities associated with digital transformation, and process-based perspectives on BMI. This integrative view provides the conceptual foundation for the subsequent analysis, which synthesizes insights from the selected studies to explain how AI readiness, managerial governance mechanisms, and organizational capabilities interact to shape business model innovation in entrepreneurial contexts.

3. Methodology

This study adopts a systematic qualitative literature synthesis approach based on thematic analysis to examine how artificial intelligence is linked to business model innovation within entrepreneurial management research. The research follows a targeted systematic logic focused on depth of analysis and conceptual integration across selected corpus of studies. The methodological design reflects the interdisciplinary nature of the topic, which spans innovation management, digital transformation and entrepreneurship research.

The review is based on a purposive sample of fourteen peer-reviewed and academically relevant publications published between 2015 and 2026. The selection process prioritized conceptual relevance, ensuring that all included studies directly address at least two of the following domains: artificial intelligence, business model innovation, or digital and entrepreneurial transformation. This targeted approach enables a detailed thematic synthesis while maintaining transparency regarding the boundaries of the dataset.

Given the diversity of research traditions in the selected studies, including conceptual frameworks, literature reviews, empirical analyses, and book chapters, the analysis emphasizes thematic integration rather than quantitative aggregation. The objective is not to measure research productivity or citation trends, but to identify shared constructs, mechanisms, and theoretical linkages across the corpus.

The inclusion criteria were defined to ensure conceptual coherence and methodological transparency. Studies were included if they (1) were published between 2015 and 2026, (2) examined AI, business model innovation, or digital transformation in organizational contexts, and (3) provided theoretical or empirical insights relevant to entrepreneurial management or SME environments. Publications focusing solely on technical AI development without managerial or business implications were excluded.

The final dataset comprises fourteen studies that collectively represent three interconnected research streams: AI and innovation management, BMI theory and processes, and digital transformation capabilities. The diversity of study types allows for a multi-perspective understanding of how AI influences business model evolution.

A structured data extraction protocol was used to analyze the selected literature. Each study was systematically reviewed and coded along several analytical dimensions, including publication type (conceptual, empirical, review, or chapter-based contribution); primary theoretical lens (e.g., AI management, BMI process perspective, dynamic capabilities, digitization capability);

level of analysis (organizational, SME, industry, or conceptual); key constructs related to AI (e.g., readiness factors, automation augmentation dynamics, innovation typologies); BMI-related

elements (antecedents, processes, barriers, and outcomes).

This coding scheme allows the synthesis to remain grounded in existing conceptual structures while enabling cross-study comparison.

The analysis followed a thematic synthesis approach. First, descriptive mapping was conducted to categorize studies by research focus and methodological orientation. Second, thematic clustering identified recurring mechanisms linking AI adoption to business model innovation, such as capability development, managerial governance tensions, and innovation process dynamics. Finally, insights from AI management research and BMI scholarship were integrated into a conceptual framework explaining how AI readiness, organizational capabilities, and governance mechanisms shape BMI outcomes in entrepreneurial contexts.

This qualitative synthesis approach aligns with prior BMI review methodologies that emphasize conceptual integration and theory development over statistical aggregation. By combining structured coding with interpretive analysis, the methodology enables a coherent examination of how AI-enabled innovation processes unfold across diverse organizational settings while remaining faithful to the scope of the selected literature corpus.

4. Results: Descriptive mapping of the 14-study corpus

The final dataset consists of fourteen studies representing multiple, yet interconnected research traditions related to artificial intelligence (AI), business model innovation (BMI), and digital transformation.

4.1. Distribution by study type

The corpus reflects a balanced mix of conceptual contributions, literature reviews, and empirical research, allowing for a multi-perspective understanding of AI-enabled business model change.

A significant portion of the dataset comprises BMI-focused literature reviews and conceptual synthesis papers. These studies provide theoretical foundations by mapping existing BMI research streams, identifying antecedents and outcomes of innovation, and highlighting the fragmentation of definitions and analytical approaches within the field. Their inclusion enables the development of a coherent conceptual baseline for analyzing AI-enabled business model transformation.

A second group of studies focuses on AI from a managerial and innovation perspective. These contributions explore how AI reshapes organizational decision-making, innovation processes, and governance mechanisms. Rather than emphasizing technical implementation, they examine AI as a strategic and organizational phenomenon, addressing topics such as automation–augmentation tensions, innovation typologies, and design-oriented approaches to AI-driven change.

Digital transformation and capability-oriented research form another important cluster within the dataset. These studies highlight how organizations develop dynamic and digitization capabilities that enable business model transformation in digitally intensive environments. They emphasize the role of sensing, seizing and transforming processes, as well as data integration and platform-based logic in translating technological adoption into strategic renewal.

The empirical perspective within the corpus is primarily represented by research on small and medium-sized enterprises (SMEs). These studies examine drivers and outcomes of business model innovation, offering insights into how resource constraints, external knowledge search, and digitalization influence innovation performance. Complementing this perspective, one study investigates organizational readiness for AI adoption through qualitative interviews, providing practical insight into the managerial preconditions required for successful AI integration.

Finally, the dataset includes conceptual work examining business model innovation in the context of digital transformation, which bridges AI and BMI discussions by emphasizing how technological change reshapes innovation pathways and organizational strategy.

4.2. Dominant research focus and emerging gaps

Descriptive mapping of the selected studies reveals several dominant research emphases. First, BMI scholarship within the corpus strongly concentrates on antecedents and performance outcomes, including drivers of innovation, strategic motivations, and organizational implications. Second, AI-oriented research focuses on innovation dynamics, managerial decision-making, and organizational readiness rather than detailed process-level analysis of business model change. Third, digital transformation studies emphasize

capability-building and strategic adaptation as key mechanisms linking technological adoption to innovation outcomes.

At the same time, notable gaps emerge from the analysis. Process-level perspectives on BMI are less extensively developed compared to antecedent and outcome-focused discussions, suggesting an opportunity to better integrate process-based innovation frameworks with AI research. Similarly, while several studies highlight managerial tensions and capability-building challenges, fewer explicitly connect these mechanisms to specific stages of business model innovation. These observations provide an important foundation for the subsequent thematic synthesis, which integrates AI management perspectives with BMI process and capability frameworks to explain how AI-enabled business model innovation unfolds in entrepreneurial contexts.

5. Thematic synthesis: How artificial intelligence enables (and constrains) business model innovation in entrepreneurial management

While Section 4 provided a descriptive mapping of the reviewed studies, the following thematic synthesis adopts an interpretive perspective, organizing recurring patterns into four interrelated layers that explain how AI-enabled business model innovation unfolds in entrepreneurial management. The thematic synthesis integrates insights from the fourteen selected studies to explain how artificial intelligence (AI) shapes business model innovation (BMI) through interconnected managerial, organizational, and technological mechanisms. Rather than presenting AI as a standalone driver of innovation, the reviewed literature consistently emphasizes that business model transformation emerges from the interaction between AI capabilities, organizational readiness, and innovation processes. Four dominant themes were identified across the dataset. The themes correspond to four interrelated layers later integrated into the conceptual framework.

5.1. AI as a driver of innovation logic and value creation

Several studies conceptualize AI as a general-purpose innovation technology that reshapes how firms experiment, learn, and create value. AI-driven analytics and machine learning accelerate experimentation cycles, enabling organizations to test ideas rapidly and refine value propositions through iterative feedback loops. In design-oriented innovation research, AI is portrayed as supporting continuous problem framing and knowledge recombination, transforming innovation from a linear process into an adaptive learning system. Similarly, research on AI in services highlights how algorithmic decision-making reconfigures task structures and value delivery mechanisms (Huang & Rust, 2018), influencing both customer experience and operational efficiency. Collectively, these perspectives suggest that AI enables new forms of scalable value creation but requires alignment with broader strategic objectives to translate technological potential into business model change.

5.2. Managerial governance and the automation–augmentation tension

A second theme centers on managerial governance and organizational design challenges associated with AI adoption. The automation–augmentation paradox (Raisch & Krakowski, 2021) illustrates how AI simultaneously substitutes human labor and enhances human capabilities, creating tensions that influence leadership decisions, role design, and innovation governance. Studies within the corpus emphasize that AI implementation involves balancing efficiency-driven automation with creativity and human judgment. Rather than eliminating managerial agency, AI shifts managerial roles toward orchestrating hybrid human–algorithm collaboration. These governance challenges directly affect BMI outcomes, as decisions about task allocation, autonomy, and control shape how organizations redesign value creation and capture mechanisms. Consequently, AI-enabled BMI is not purely technological but deeply embedded in managerial strategy and organizational culture.

5.3. Capability-building and digital transformation pathways

The third theme highlights the importance of organizational capabilities in translating AI adoption into business model transformation. Research on dynamic capabilities and digitization capability emphasizes that firms must develop sensing, seizing, and transforming capacities to leverage AI effectively. AI adoption often triggers broader digital transformation processes that require new data infrastructures, platform-based logic, and cross-functional integration. Rather than producing immediate business model change, AI acts as a catalyst that activates capability-building

processes. These capabilities enable organizations to reinterpret existing resources, redesign value propositions and explore new revenue mechanisms. The findings suggest that capability development serves as a mediating mechanism between AI implementation and BMI outcomes, reinforcing the view that technological innovation alone is insufficient without strategic and organizational adaptation.

5.4. Entrepreneurial and SME perspectives: antecedents, search strategies and outcomes

The final theme reflects the entrepreneurial dimension of AI-enabled BMI, particularly within small and medium-sized enterprises (SMEs). Empirical studies indicate that digitalization, external knowledge search, and experimentation practices function as key antecedents of BMI in resource-constrained environments. Entrepreneurial firms often engage in broad and deep knowledge search to identify innovation opportunities, which increases the novelty and scope of business model changes (Angelshaug et al., 2025; Pucihar et al., 2019). However, resource limitations and uncertainty also introduce constraints, making organizational readiness and leadership support critical success factors. Research on AI readiness underscores the importance of data availability, managerial commitment, and skill development as prerequisites for successful innovation initiatives. Together, these findings highlight that AI-enabled BMI in entrepreneurial contexts is shaped by a dynamic interplay between opportunity exploration and organizational constraints.

5.5. Synthesis of themes

Across the reviewed studies, AI emerges less as a direct source of new business models and more as an enabling infrastructure that reshapes innovation processes and managerial practices. Business model innovation occurs when AI-driven experimentation intersects with governance decisions and capability-building efforts. The thematic synthesis therefore suggests a multi-layered view of AI-enabled entrepreneurial management: AI provides new innovation affordances, managerial governance determines how these affordances are enacted, organizational capabilities translate technological adoption into strategic change, and entrepreneurial conditions shape the scope and outcomes of business model transformation. Together, these themes form the basis of a four-layer integrative framework that is further developed in the following section.

6. Integrative framework: AI-enabled business model innovation in entrepreneurial management

Building on the thematic synthesis, a four-layer integrative framework consisting of AI innovation affordances, managerial governance, organizational capabilities and business model innovation processes and outcomes is developed that explains how artificial intelligence (AI) contributes to business model innovation (BMI) through interconnected managerial and organizational mechanisms. The framework consolidates recurring elements identified across the fourteen reviewed studies, linking AI capabilities, governance mechanisms, capability-building processes and BMI outcomes into a coherent structure relevant for entrepreneurial management.

6.1. Integrative model

The integrative framework conceptualizes AI-enabled business model innovation (BMI) as a conceptual four-layer structure that links technological affordances with managerial and organizational mechanisms shaping innovation outcomes in entrepreneurial contexts. Emerging from the thematic synthesis, this four-layer structure provides the conceptual backbone of the framework and is visually summarized in Figure 1.

The first layer represents **AI innovation affordances**, referring to the technological possibilities created by AI applications that reshape experimentation, learning, and value creation logic. Prior research highlights how AI enables data-driven experimentation, accelerates feedback loops, and supports both competence-enhancing and competence-destroying forms of innovation. These affordances do not directly produce new business models; instead, they create the conditions under which organizations can explore alternative value propositions and operational configurations.

The second layer captures **managerial governance**, emphasizing the role of leadership decisions and organizational design in translating technological affordances into strategic action. Studies addressing the automation–augmentation tension demonstrate that managers must balance efficiency-driven automation with human creativity and judgment. Governance choices related to task allocation, human-AI collaboration, and strategic prioritization determine how innovation

opportunities are enacted and how risks associated with AI adoption are managed.

The third layer reflects **organizational capabilities** which mediate the relationship between AI adoption and business model transformation. Dynamic capabilities, digitization capability and AI readiness collectively enable firms to sense technological opportunities, seize innovation potential, and transform existing structures. Rather than viewing AI as an isolated technological input, the reviewed literature positions capability-building as a critical mechanism through which AI becomes embedded in strategic renewal processes.

The fourth layer encompasses **business model innovation processes and outcomes**. Process-based perspectives suggest that BMI unfolds through iterative experimentation, evaluation, and adaptation, leading to changes in value creation, delivery, and capture mechanisms. Outcomes such as strategic renewal, innovation performance, and business model transformation emerge when experimentation practices align with governance structures and organizational capabilities. Within this layer, innovation processes and outcomes are conceptually linked, reflecting the cumulative nature of entrepreneurial adaptation rather than discrete transformation stages.

Across all four layers, **entrepreneurial conditions,** including resource constraints, external knowledge search, experimentation culture and broader ecosystem and institutional factors such as access to digital infrastructure, policy support, and innovation networks, function as a contextual boundary shaping how AI-enabled innovation unfolds. By positioning AI innovation affordances, managerial governance, organizational capabilities, and BMI processes and outcomes within a single layered structure, the framework highlights that AI acts as an enabling infrastructure whose strategic impact depends on managerial orchestration and capability development rather than technological deployment alone.

6.2. Conceptual propositions and future research directions

Based on the synthesis, several conceptual propositions emerge that can guide future empirical research.

- **Proposition 1:** Organizational AI readiness positively influences the likelihood and scope of business model innovation by enabling firms to translate technological adoption into strategic experimentation.
- **Proposition 2:** Managerial governance mechanisms, particularly the balance between automation and augmentation, mediate the relationship between AI adoption and BMI processes.
- **Proposition 3:** Dynamic and digitization capabilities act as mediating mechanisms through which AI inputs are transformed into sustained business model change.
- **Proposition 4:** Entrepreneurial conditions, including resource constraints and external knowledge search strategies, moderate the relationship between BMI processes and innovation outcomes.

These propositions remain conceptual and are intended to support theory development rather than hypothesis testing. By integrating insights from AI management research, BMI scholarship, and digital transformation studies, the framework contributes a structured explanation of how AI-enabled innovation unfolds within entrepreneurial settings and provides a foundation for future research exploring AI-driven strategic renewal.

Figure 1 presents the integrative framework developed in this study, conceptualizing AI-enabled business model innovation as a four-layered structure. The framework illustrates how AI innovation affordances are translated into business model transformation through managerial governance and organizational capability development, while entrepreneurial conditions provide the contextual boundary shaping innovation processes and outcomes.

The figure depicts a four-layer conceptual structure consisting of AI innovation affordances, managerial governance, organizational capabilities, and business model innovation processes and outcomes. Entrepreneurial conditions are represented as a contextual boundary that shapes how AI readiness, dynamic capabilities, and governance mechanisms translate technological affordances into strategic renewal and business model transformation.

7. Discussion and implications

The findings of this review contribute to business model innovation (BMI) research by integrating AI-specific mechanisms into established BMI dimensions and process perspectives. Unlike prior BMI reviews that primarily focus on antecedents, processes or outcomes in isolation and rarely incorporate AI as a distinct analytical layer shaping these elements, this study provides a multi-layered explanation of how AI reshapes business

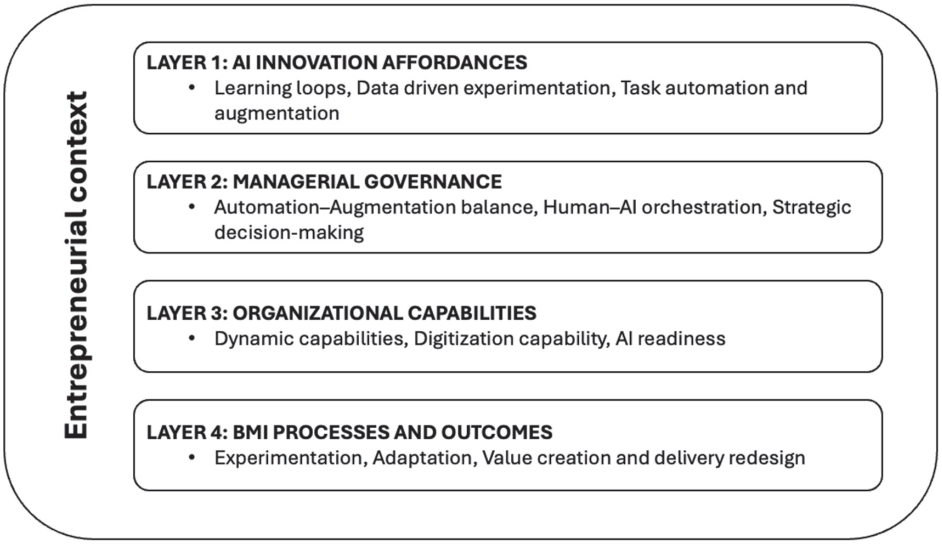

Figure 1. Integrative framework of AI-enabled business model innovation in entrepreneurial management

model innovation by integrating technological affordances, managerial governance, organizational capabilities, and entrepreneurial context into a unified framework.

Importantly, the findings suggest that AI-enabled transformation does not operate independently of business model innovation. Rather, AI reshapes entrepreneurial outcomes primarily through governance decisions and capability development embedded within BMI processes.

These findings are consistent with prior research highlighting the role of AI in innovation processes and business model transformation (Cockburn et al., 2019; Verganti et al., 2020; Paschen et al., 2020).

By synthesizing the selected studies, this review demonstrates that AI readiness factors, managerial governance tensions, and AI-enabled learning loops function as critical antecedents and mediators within BMI processes. In particular, the analysis extends existing BMI frameworks by showing how AI capabilities influence not only innovation outcomes but also the mechanisms through which value creation and delivery models evolve, but AI alone does not generate BMI.

Furthermore, the study advances AI management literature by connecting core AI concepts, such as the automation–augmentation paradox (Raisch & Krakowski, 2021), organizational readiness, and design-oriented innovation loops to changes in business model logic. Previous research has often examined these constructs in isolation, focusing either on technological adoption or managerial decision-making. The integrative framework developed in this review highlights that AI reshapes strategic renewal primarily through organizational capabilities and governance mechanisms rather than through technological deployment alone. By linking AI readiness and managerial orchestration to dynamic capability development and iterative innovation processes, the review provides a bridge between AI research and entrepreneurship scholarship.

The findings also point to the importance of policy and institutional support in shaping AI-enabled business model innovation. Public policies related to digital infrastructure, data governance, AI regulation, and innovation funding play a critical role in enabling or constraining entrepreneurial experimentation. Institutional support mechanisms, such as innovation hubs, incubators and public–private partnerships, can facilitate access to resources and knowledge necessary for SMEs to develop AI capabilities and implement business model innovation. Integrating these dimensions extends the framework beyond firm-level analysis and highlights the role of systemic conditions in AI-driven entrepreneurial transformation.

The synthesis also contributes to digital transformation theory by positioning AI as an enabling infrastructure that activates capability-building pathways. Rather than framing AI as a direct determinant of performance, the findings emphasize the mediating role of sensing, seizing, and transforming activities in translating technological potential into sustained business model change. This perspective helps reconcile fragmented research streams by situating AI-enabled innovation within a broader entrepreneurial management context.

7.1. Practical implications for entrepreneurs and SMEs

The review offers several practical insights for entrepreneurs and SME leaders navigating AI-enabled business model innovation. First, the findings suggest that successful AI-driven BMI requires a structured assessment of organizational readiness. Key readiness domains include data infrastructure, leadership alignment, workforce capabilities, governance structures and cultural openness to experimentation. Managers should evaluate these factors before investing in large-scale AI initiatives, as readiness conditions strongly influence the feasibility and scope of innovation.

Second, entrepreneurs can benefit from adopting a structured approach to selecting AI use cases. The reviewed literature highlights the importance of distinguishing between product-oriented and process-oriented AI applications, as well as between competence-enhancing and competence-destroying innovations. Viewing AI initiatives through this typological lens helps organizations align technological adoption with strategic goals and anticipate potential organizational disruptions.

Third, managing the automation-augmentation tension emerges as a central managerial challenge. Rather than pursuing automation solely for efficiency gains, leaders should design hybrid human-AI workflows that preserve creativity and strategic flexibility. This involves redefining roles, fostering interdisciplinary collaboration and developing governance mechanisms that balance control with experimentation. Firms that actively manage this tension are more likely to achieve sustainable business model transformation rather than short-term operational improvements.

Finally, the findings underline the importance of continuous experimentation and external knowledge search in entrepreneurial contexts. SMEs can leverage partnerships, ecosystem engagement, and iterative prototyping to compensate for resource constraints and accelerate innovation learning cycles. By integrating readiness assessment, strategic AI use-case selection, and adaptive governance practices, entrepreneurs can better align AI adoption with long-term business model innovation objectives.

In addition, entrepreneurs should actively engage with broader innovation ecosystems, including industry networks, digital platforms, and public support programs, to overcome internal resource limitations and accelerate AI-driven innovation. Leveraging ecosystem partnerships can enhance access to data, technological expertise, and funding opportunities, thereby increasing the effectiveness of AI-enabled business model innovation in SME contexts.

8. Conclusion

This review examined how artificial intelligence (AI) shapes business model innovation (BMI) within entrepreneurial management by synthesizing insights from fourteen selected studies published between 2015 and 2026. The analysis highlights several key takeaways. First, AI should be understood as an enabling infrastructure rather than a direct driver of new business models. The proposed four-layer framework underscores that AI does not directly generate new business models. Instead, its strategic impact emerges through governance mechanisms and capability development embedded within entrepreneurial innovation processes. Second, managerial governance plays a central role in AI-enabled business model innovation. The balance between automation and augmentation influences how organizations redesign roles, decision-making processes, and innovation strategies. Third, organizational capabilities, particularly dynamic and digitization capabilities mediate the relationship between AI adoption and sustained business model change. Finally, entrepreneurial conditions such as resource constraints, experimentation practices, and external knowledge search shape both the scope and outcomes of AI-enabled BMI.

Building on these insights, the review outlines a focused agenda for future research. Existing BMI scholarship would benefit from more detailed examination of process-level dynamics through which AI-enabled innovation unfolds over time. Similarly, AI research could further explore how readiness factors and governance mechanisms influence specific stages of business model transformation. Comparative empirical studies across industries and organizational sizes would help clarify contextual moderators, while longitudinal research could examine how AI-driven innovation trajectories evolve in entrepreneurial settings. By positioning AI-enabled business model innovation within a layered entrepreneurial framework, this study offers a foundation for future research exploring how entrepreneurs and SMEs strategically orchestrate AI-driven transformation within entrepreneurial management contexts under conditions of uncertainty.

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