Jurnal Manajemen dan Kewirausahaan
(JUMAWA) | ISSN (e): 3031-1195
Volume 3 No. 4 (2026)

AI-Enabled Business Model Innovation and Entrepreneurial Resilience in Emerging Economies

Siti Nardiyah Muhrami[1]*, Asriyani Amrullah[2]
[1,2]Universitas Negeri Makassar
E-mail: sitinardiyah@unm.ac.id[1]*, asriyani.amrullah@unm.ac.id[2]

Received	: 29 July 2026	Published	: 09 September 2026
Revised	: 19 August 2026	DOI	: https://doi.org/10.59971/jumawa.v3i4.507
Accepted	: 22 August 2026	Link Publish	: https://abadiinstitute.org/index.php/JUMAWA/article/view/507

Abstract

Artificial intelligence (AI) offers small and medium enterprises (SMEs) opportunities to innovate business models and strengthen entrepreneurial resilience amid market uncertainty and resource constraints. However, evidence connecting AI adoption, business model innovation (BMI), and entrepreneurial resilience remains fragmented, particularly in emerging economies. This study examines how AI-enabled BMI relates to entrepreneurial resilience and identifies organizational and environmental conditions shaping these relationships. A systematic literature review was conducted following PRISMA 2020 reporting principles. Searches performed on 19 October 2026 identified 42 candidate records, of which seven empirical studies published between 2024 and 2026 were retained for thematic synthesis. The findings indicate that AI can improve business outcomes when supported by organizational readiness, technological competence, and strategic alignment. BMI and entrepreneurial innovativeness are positively associated with resilience among Nigerian SMEs, while market turbulence may weaken some pathways linking entrepreneurial orientation and resilience. Government support also contributes to firm performance. However, no retained study directly tests the complete pathway from AI adoption through BMI to entrepreneurial resilience, and evidence from Asia is absent. AI adoption alone is insufficient to ensure resilience. SMEs should combine AI implementation with business model redesign, capability development, and strategic alignment. Future research should test the integrated AI–BMI–resilience pathway using longitudinal designs, objective resilience indicators, and empirical evidence from emerging economies in Asia and Africa.

Keywords: *Artificial Intelligence; Business Model Innovation; Emerging Economies; Entrepreneurial Resilience; Small and Medium Enterprises*

INTRODUCTION

Entrepreneurs in emerging economies operate under volatile demand, uneven infrastructure, and limited access to finance. In such settings, the ability to keep pursuing opportunities under adversity, often called entrepreneurial resilience, is a precondition for survival (Bullough & Renko, 2013; Windarsari et al., 2026). One route to resilience is to change how the firm creates, delivers, and captures value, which is the core of business model innovation (BMI) (Teece, 2010; Foss & Saebi, 2017). Artificial intelligence (AI) is now widely discussed as an enabler of such redesign, because it can automate processes, personalize offers, and support decisions.

The theoretical link is plausible. Teece et al. (1997) argue that, according to dynamic capabilities theory, firms survive turbulence by sensing, seizing, and reconfiguring resources, and AI can strengthen each step. Empirical evidence, however, is uneven. Abrokwah-Larbi and Awuku-Larbi (2024) report that AI in marketing improves several dimensions of performance among SMEs in an emerging economy. In contrast, Filip et al. (2026), studying 285 companies, find that AI use itself does not significantly predict performance, and that perceived relative advantage is the key mediating factor. Mohamad et al. (2026) add that AI becomes a foundation of sustainable BMI only when it is aligned with strategy and organizational design.

CC BY OPEN ACCESS

Studies that connect AI to resilience are fewer. Shore et al. (2024) examine generative AI as a source of entrepreneurial resilience during crisis and find that market turbulence negatively moderates the path from entrepreneurial orientation to resilience. Studies of BMI and resilience, meanwhile, often leave AI aside; Alake and Adegbuyi (2024) show that technology competence moderates the link between BMI and resilience among Nigerian SMEs. The chain that the title implies, from AI to BMI to resilience, is therefore assembled from separate studies, and it is unclear how well the pieces fit in emerging economies.

This article reviews the evidence published between 2022 and 2026 and addresses four questions. RQ1: What does the evidence say about the relationship between AI and BMI in SMEs? RQ2: How is BMI, or innovation more broadly, related to entrepreneurial resilience? RQ3: What conditions shape these relationships, particularly in emerging economies? RQ4: What gaps and research priorities follow? The review contributes a structured synthesis, shows where the evidence chain breaks, and offers four propositions for testing.

LITERATURE REVIEW

Constructs and working definitions

The constructs in the title are used differently across studies, so this review adopts working definitions. AI-enabled BMI refers to the redesign of how a firm creates, delivers, and captures value through the use of AI technologies. Shaik et al. (2024) label this AI-driven business model innovation, and Mohamad et al. (2026) treat AI as a foundational input to BMI instead of only a facilitator. Entrepreneurial resilience refers to the capacity to withstand and recover from adversity while continuing to pursue opportunities (Bullough & Renko, 2013). Studies often measure it as organizational or SME resilience, and the retained studies use both labels. Emerging economies are treated as the settings the primary studies describe as such, including Nigeria. These definitions are the reviewer's, not a consensus in the literature.

Theoretical lenses

Three lenses recur. The resource-based view treats AI as a resource whose value depends on complementary capabilities, which Abrokwah-Larbi and Awuku-Larbi (2024) use to explain performance gains from AI-based marketing. Dynamic capabilities theory explains why firms that reconfigure their resources and business models are better able to cope with change, and Alake and Adegbuyi (2024) combine it with institutional theory to explain resilience among Nigerian SMEs. The technology-organization-environment framework, used by Mohamad et al. (2026), explains differences in how large and small firms adopt AI.

Debates and gaps

Three debates frame the review. The first concerns whether AI use by itself improves outcomes or only when paired with readiness, strategy, and perceived advantage. The second concerns whether resilience is built through innovation in the business model or through orientation and technology competence. The third concerns how far findings from advanced economies transfer to emerging economies. Gaps follow directly: studies that test the full AI, BMI, and resilience chain; objective measures of resilience; and evidence from emerging economies in Asia.

METHOD

Design and protocol

This study is a systematic literature review reported according to the principles of the PRISMA 2020 statement (Page et al., 2021). The review protocol was not registered. The review question was framed

CC BY OPEN ACCESS

around the population (SMEs and entrepreneurial firms), the exposures (AI adoption or capability, and BMI), and the outcomes (BMI, entrepreneurial or organizational resilience, and closely related performance).

Search strategy

Searches were run on 19 October 2026 through an open web search engine. Subscription databases such as Scopus and Web of Science were not searched. Ten English-language queries combined terms for artificial intelligence, generative AI, business model innovation, entrepreneurial resilience, SMEs, emerging economies, and big data analytics. This strategy favors transparency about what was actually done over breadth, and its consequences are discussed under limitations.

Eligibility criteria and screening

Records were included if they (a) were published between 2022 and 2026; (b) were peer-reviewed journal articles; (c) concerned SMEs or entrepreneurial firms; (d) were empirical studies of AI, BMI, or innovation in relation to resilience or closely related performance; and (e) had verifiable bibliographic details (authors, journal, and volume or DOI) and an accessible abstract. Records were excluded if they fell outside the date window or were preprints, if they were reviews, bibliometric studies, or conceptual papers, if their focus lay outside the scope (for example, adoption intention or agility without BMI or resilience), or if their bibliographic details or abstract could not be verified.

The searches surfaced 42 distinct candidate records. Table 1 shows how they were screened. After applying the criteria, seven primary studies were retained. Screening was performed by a single reviewer, so inter-rater agreement could not be assessed.

Table 1. Screening outcomes of candidate records (n = 42)

Stage or reason	Records	%
Candidate records surfaced by the searches	42	100.0
Excluded: outside 2022–2026, or preprint	5	11.9
Excluded: review, bibliometric study, or conceptual paper	4	9.5
Excluded: focus outside scope (e.g., adoption intention, agility only)	3	7.1
Excluded: bibliographic details or abstract could not be verified	23	54.8
Retained for synthesis: primary studies	7	16.7

Percentages are shares of the 42 candidate records.

Data extraction and synthesis

For each retained study, the setting, design and sample, AI or BMI construct, outcome, and main finding were extracted, mainly from abstracts and accessible excerpts, because full texts were not available for every record. No formal risk-of-bias instrument was applied. Findings were synthesized thematically and narratively, because the studies differ too much in constructs and designs for a meta-analysis.

RESULTS AND DISCUSSION

Characteristics of the included studies

Of the seven retained studies, five were published in 2024 and two in 2026. Two are set in Nigeria (Alake & Adegbuyi, 2024; Oiku, 2024), one in an emerging economy not named in the abstract (Abrokwah-Larbi & Awuku-Larbi, 2024), one in the United States (Shaik et al., 2024), and one in the Netherlands (Mohamad et al., 2026); the settings of the other two are not reported in the abstracts consulted. Six are quantitative and one is a multiple case study. None of the retained studies is set in Asia. Only Shore et al.

OPEN ACCESS

(2024) examine resilience in relation to AI, only Alake and Adegbuyi (2024) examine BMI in relation to resilience, and only Shaik et al. (2024) and Mohamad et al. (2026) examine AI in relation to BMI. Table 2 summarizes the studies.

Table 2. Primary studies retained for synthesis (n = 7)

Study	Setting	Design and sample	AI or BMI construct	Main finding
Abrokwah-Larbi & Awuku-Larbi (2024)	Emerging economy (n.r.)	Survey of SMEs; resource-based view	AI in marketing	Positive impact on financial, customer, internal process, and learning and growth performance
Alake & Adegbuyi (2024)	Nigeria	SMEs; resource-based, dynamic capability, and institutional theory	Business model innovation; technology competence	Technology competence moderates the BMI–resilience link, amplifying BMI's effect on resilience
Oiku (2024)	Nigeria (Lagos)	Descriptive design; 500 SME owners	Entrepreneurial innovativeness	Significant positive relationship with organizational resilience
Shaik et al. (2024)	United States	Quantitative; 326 SMEs	AI-driven business model innovation	AI use supports innovative business models that integrate sustainability practices
Shore et al. (2024)	n.r.	Empirical study of SMEs	Generative AI; entrepreneurial orientation	Market turbulence negatively moderates the path from orientation to entrepreneurial resilience
Filip et al. (2026)	n.r.	Quantitative research; 285 companies	AI adoption and use	AI use not a significant predictor; perceived relative advantage mediates; government support has a direct effect
Mohamad et al. (2026)	Netherlands	Multiple case study; TOE framework	AI-powered business model innovation	Differences between large and small firms; design-led, bottom-up, AI–strategy alignment

n.r. = not reported in the abstract consulted. BMI = business model innovation; TOE = technology–organization–environment.

AI and business model innovation (RQ1)

Evidence that AI enables BMI is encouraging but conditional. Shaik et al. (2024), using data from 326 SMEs in the United States, report that AI use is instrumental in developing and implementing innovative business models that integrate sustainability practices. Mohamad et al. (2026) find, in a multiple case study in the Netherlands, differences between large and small sustainability companies from the technological, organizational, and environmental perspectives, and show that firms emphasize design-led approaches, bottom-up innovation, and alignment between AI and strategy. Neither study is set in an emerging economy, so their transfer is an open question.

The conditionality is reinforced by studies of performance. Filip et al. (2026) find that AI use does not have a significant effect on performance at present, that perceived relative advantage fully mediates the effect of top management support on performance, and that government support has a direct and independent contribution to performance. Abrokwah-Larbi and Awuku-Larbi (2024), by contrast, find that AI-based marketing has a positive impact on financial, customer, internal process, and learning and growth performance among SMEs in an emerging economy. The contrast suggests that AI pays off when managers see its advantage and fit it to a purpose, and it argues against treating adoption as the outcome of interest.

Business model innovation, innovation, and resilience (RQ2)

Two Nigerian studies link innovation to resilience. Alake and Adegbuyi (2024) report that technology competence moderates the association between BMI and SME resilience, so that BMI's beneficial effect on resilience is amplified when firms have the technological skills to use it. Oiku (2024), surveying 500 SME owners in Lagos, finds a significant positive relationship between entrepreneurial innovativeness and organizational resilience. Both support the idea that changing how the firm operates

OPEN ACCESS

and creates value helps it withstand turbulence, although the second study is correlational and the first does not involve AI.

Shore et al. (2024) add the direct AI link. Studying generative AI and entrepreneurial orientation in SMEs, they find that market turbulence negatively moderates the path from entrepreneurial orientation to entrepreneurial resilience. This result implies that the benefits of AI-supported orientation for resilience may fade when the market is most turbulent, which is exactly when resilience is needed. It is a caution against assuming that AI always strengthens resilience under stress.

Conditions in emerging economies (RQ3)

Three conditions recur across the studies. The first is organizational readiness: perceived relative advantage (Filip et al., 2026), AI and strategy alignment (Mohamad et al., 2026), and technology competence (Alake & Adegbuyi, 2024) each determine whether technology translates into outcomes. The second is environmental turbulence, which weakens the orientation and resilience path in Shore et al. (2024). The third is institutional support, since government support had an independent effect on performance in Filip et al. (2026). Evidence on emerging economies as such is limited to the Nigerian studies and to Abrokwah-Larbi and Awuku-Larbi (2024), and none of the retained studies compares emerging and advanced economies directly.

Integrative synthesis and propositions

Read together, the evidence supports a conditional chain in which AI shapes BMI, BMI supports resilience, and organizational readiness and turbulence condition each link. No retained study tests the whole chain. Table 3 therefore presents four propositions derived from the synthesis. They are proposals for future research, not findings of this review.

Table 3. Propositions derived from the synthesis

Proposition	Basis in retained evidence	Evidence status
P1: AI adoption improves entrepreneurial resilience in part through business model innovation	AI and BMI (Shaik et al., 2024; Mohamad et al., 2026); BMI and resilience (Alake & Adegbuyi, 2024); generative AI and resilience (Shore et al., 2024)	Links supported separately; full chain untested in the retained set
P2: The effect of AI on BMI depends on organizational readiness, perceived advantage, and strategic fit	Perceived relative advantage mediates (Filip et al., 2026); AI–strategy alignment (Mohamad et al., 2026); technology competence (Alake & Adegbuyi, 2024)	Partial; several indirect tests
P3: Environmental turbulence weakens the resilience benefits of AI-supported orientation and BMI	Turbulence negatively moderates orientation and resilience (Shore et al., 2024)	One study; BMI path untested
P4: In emerging economies, institutional support conditions the AI–BMI–resilience chain	Government support has an independent effect (Filip et al., 2026); Nigerian and emerging-economy settings (Alake & Adegbuyi, 2024; Abrokwah-Larbi & Awuku-Larbi, 2024)	Indirect only

Theoretical Implications and Boundary Conditions

The findings contribute to dynamic capabilities theory by clarifying how artificial intelligence (AI) may support entrepreneurial resilience through business model innovation (BMI). AI adoption should not be interpreted as a capability in itself that automatically generates resilience. Rather, its value depends on how firms integrate technological resources into organizational routines, strategic decisions, and processes of value creation. This distinction is consistent with the reviewed evidence showing that AI-related benefits

OPEN ACCESS

depend on organizational readiness, perceived relative advantage, and alignment between technology and business strategy.

BMI represents a potential mechanism through which AI-enabled capabilities are translated into organizational adaptation. By redesigning how firms create, deliver, and capture value, entrepreneurs may respond to changing customer needs, identify alternative revenue opportunities, and adjust operational arrangements under uncertainty. However, the reviewed studies examine the relationships between AI and BMI, and between BMI and resilience, largely as separate connections. The proposed mediating role of BMI therefore remains a theoretical explanation requiring direct empirical testing rather than an established finding.

The synthesis also highlights the importance of boundary conditions. Technological competence and organizational readiness may determine whether firms can convert AI applications into meaningful business model changes. Meanwhile, environmental turbulence may constrain the benefits of entrepreneurial orientation and AI-supported initiatives. Institutional support provides another relevant condition because access to infrastructure, training, and external resources can influence firms' capacity to implement technological changes. These conditions suggest that the relationship between AI-enabled BMI and resilience is contingent rather than universal.

For emerging economies, this perspective emphasizes the need to distinguish technology adoption from capability development. SMEs may benefit more from aligning AI applications with clearly defined business problems and feasible organizational changes than from adopting advanced technologies without adequate preparation (Arif & Windarsari, 2026; Arif et al., 2026; Riu et al., 2026). Nevertheless, the extent to which these mechanisms operate similarly across emerging economies remains uncertain because the reviewed evidence is geographically limited and does not include studies from Asia.

Taken together, this review advances an integrative framework in which AI-enabled capabilities may facilitate BMI, BMI may contribute to entrepreneurial resilience, and organizational readiness, environmental turbulence, and institutional support may shape these relationships. Future research should test the complete pathway using longitudinal data and objective resilience indicators, including business survival, recovery time following disruptions, and revenue stability.

Implications, limitations, and research agenda (RQ4)

For entrepreneurs and SME advisers, the synthesis suggests that investing in AI tools is not enough. Firms should build the technology competence and strategic fit that turn AI into new ways of creating value, and they should plan for the possibility that turbulence will weaken some benefits. For policy makers in emerging economies, the independent effect of government support in Filip et al. (2026) suggests that enabling infrastructure and training matter alongside firm-level adoption. Because no retained study is set in Asia, these points should be tested in settings such as Indonesia.

Several limitations qualify the review. The searches used an open web search engine instead of Scopus or Web of Science, so relevant studies may have been missed, and the PRISMA-style counts describe this search only. A single reviewer screened the records. Extraction relied mostly on abstracts. Twenty-three records were excluded because their authors or journal details could not be verified, and these include a 2025 study in the Journal of Open Innovation that directly tests the path from AI-powered big data analytics through BMI to entrepreneurial resilience. The corpus is small and heterogeneous, and only English-language sources were considered. A replication in Scopus and Web of Science with two independent reviewers and full-text appraisal is the obvious next step.

CC BY OPEN ACCESS

The findings point to five research priorities. First, studies should test the full chain from AI to BMI to resilience in one model, with turbulence and readiness as moderators. Second, resilience should be measured with objective indicators such as survival, recovery time, and revenue stability after a shock. Third, longitudinal designs should show whether AI-enabled BMI precedes resilience. Fourth, studies should distinguish generative AI, predictive analytics, and automation, which may relate to BMI differently. Fifth, evidence from Asia and from lower-resource firms in Africa should be extended.

CONCLUSION

This systematic literature review asked how AI-enabled business model innovation relates to entrepreneurial resilience in emerging economies. Across seven primary studies published in 2024 and 2026, the answer is conditional and incomplete. AI is linked to better outcomes when firms have readiness and strategic fit, BMI is associated with resilience in Nigerian SMEs, and generative AI supports resilience although turbulence weakens some pathways. No retained study tests the whole chain, and evidence from Asia is absent. The four propositions offered here give researchers a starting point, and SME advisers a reason to pair AI adoption with capability building and business model redesign.

DECLARATION OF GENERATIVE AI

During the preparation of this manuscript, the authors used Grammarly Application and QuillBot to improve the clarity, readability, and language accuracy of the text. Output generated by the tools was carefully reviewed and edited by the authors, who take full responsibility for the content of this article. The authors made all substantive intellectual contributions, including conceptualization, data analysis, interpretation, and final decisions on content, arguments, and conclusions. The authors take full responsibility for the integrity, originality, and academic quality of this article.

DECLARATION OF CONFLICTING INTERESTS

The authors declared no potential conflicts of interest with respect to the research, authorship, and/or publication of this article.

FUNDING

The authors received no financial support for the research, authorship, and/or publication of this article.

REFERENCES

Abrokwah-Larbi, K., & Awuku-Larbi, Y. (2024). The impact of artificial intelligence in marketing on the performance of business organizations: Evidence from SMEs in an emerging economy. *Journal of Entrepreneurship in Emerging Economies, 16*(4), 1090–1117. https://doi.org/10.1108/JEEE-07-2022-0207

Alake, O. R., & Adegbuyi, O. (2024). Business model innovation and SMEs' resilience: Technological roadmap in Nigeria. *Business: Theory and Practice, 25*(2), 614–624. https://doi.org/10.3846/btp.2024.18978

OPEN ACCESS

Arif, H. M., & Windarsari, W. R. (2026). Between Algorithm and Adat: How Bugis-Makassar MSMEs Negotiate AI Marketing Through the Lens of Siri' na Pacce. Economics and Business Journal (ECBIS), 4(3), 897–908. https://doi.org/10.47353/ecbis.v4i3.308

Arif, H. M., Riu, I. A., & Windarsari, W. R. (2026). Digital Marketing Management In Micro, Small, And Medium Enterprises Of South Sulawesi: Integrating Local Wisdom And Artificial Intelligence: A Qualitative Study. Economics and Business Journal (ECBIS), 5(1), 195–204. https://doi.org/10.47353/ecbis.v5i1.616

Bullough, A., & Renko, M. (2013). Entrepreneurial resilience during challenging times. *Business Horizons, 56*(3), 343–350. https://doi.org/10.1016/j.bushor.2013.01.001

Filip, A., Stancu, A., Alnıaçık, Ü., Catană, C., & Năstasă, A. C. (2026). Adoption of artificial intelligence and SME performance in digital ecosystems. *Amfiteatru Economic, 28*(72), 451–469.

Foss, N. J., & Saebi, T. (2017). Fifteen years of research on business model innovation: How far have we come, and where should we go? *Journal of Management, 43*(1), 200–227. https://doi.org/10.1177/0149206316675927

Mohamad, M., Balıkel, A. E., Chowdhury, D., Russell, C., & Eldebeky, S. M. (2026). Artificial intelligence for business model innovation in digital sustainability companies: Multiple cases from the Netherlands. *World Journal of Entrepreneurship, Management and Sustainable Development, 22*(1/2). https://doi.org/10.47556/J.WJEMSD.22.1-2.2026.5

Oiku, P. O. (2024). Innovation and organisational resilience among small and medium-sized enterprises in Lagos State. *International Journal of Business and Technopreneurship, 14*(1), 35–48. https://doi.org/10.58915/ijbt.v14i1.298

Page, M. J., McKenzie, J. E., Bossuyt, P. M., Boutron, I., Hoffmann, T. C., Mulrow, C. D., … Moher, D. (2021). The PRISMA 2020 statement: An updated guideline for reporting systematic reviews. *BMJ, 372*, n71. https://doi.org/10.1136/bmj.n71

Riu, I. A., Radjab, I., Arif, H. M., Haeruddin, M. I. W., & Aswar, N. F. (2026). Consumer Trust In Influencer-Based Digital Marketing: A Qualitative Study Among Beauty Product Consumers In Makassar City. Economics and Business Journal (ECBIS), 4(2), 533–546. https://doi.org/10.47353/ecbis.v4i2.378

Shaik, A. S., Alshibani, S., Jain, G., Gupta, B., & Mehrotra, A. (2024). Artificial intelligence (AI)-driven strategic business model innovations in small- and medium-sized enterprises. *Business Strategy and the Environment, 33*(4).

Shore, A., Tiwari, M., Tandon, P., & Foropon, C. (2024). Building entrepreneurial resilience during crisis using generative AI: An empirical study on SMEs. *Technovation, 135*, 103063. https://doi.org/10.1016/j.technovation.2024.103063

Teece, D. J. (2010). Business models, business strategy and innovation. *Long Range Planning, 43*(2–3), 172–194. https://doi.org/10.1016/j.lrp.2009.07.003

Windarsari, W. R., Riu, I. A., & Dipoatmodjo, T. S. P. (2026). Leveraging AI-CRM To Achieve The Triple Bottom Line: An Analysis Of Its Effects On Economic, Social, And Environmental Performance. Economics and Business Journal (ECBIS), 5(1), 331–346. https://doi.org/10.47353/ecbis.v5i1.679

OPEN ACCESS