

# KNOWLEDGE ECOSYSTEMS AND INNOVATION RESILIENCE IN REGIONAL MSMEs: LINKING UNIVERSITY COLLABORATION, ABSORPTIVE CAPACITY, AND EXPERIMENTATION

Maya Ariyanti<sup>1</sup>, Endang Ruchiyat<sup>2</sup>

<sup>1</sup>Telkom University, Bandung, Indonesia

<sup>2</sup>STIE Ekuitas, Bandung, Indonesia

Email: <sup>1</sup>ariyanti@telkomuniversity.ac.id; <sup>2</sup>endang.ruchiyat@ekuitas.ac.id

## *Abstract*

This conceptual and integrative review develops a framework for knowledge ecosystems and innovation resilience in micro, small, and medium enterprises. It addresses the problem that regional MSMEs often encounter valuable external knowledge but struggle to evaluate, adapt, combine, and retain it in ways that improve innovation under resource and capability constraints. Drawing on the resource-based view, dynamic capabilities, organizational learning, absorptive capacity, social capital, and resilience, the paper explains how university-industry interaction, knowledge translation, absorptive routines, bounded experimentation, interorganizational learning can be organized as mutually reinforcing routines. The proposed pathway moves from problem diagnosis and capability mapping to bounded experimentation, evidence review, resource reconfiguration, and learning retention. No primary survey, interview, experimental, administrative, or statistical data are claimed. The framework links these mechanisms to innovation relevance, faster adaptation, collaborative capacity, knowledge retention, regional resilience and identifies managerial, institutional, and research implications suitable for resource-constrained enterprises.

**Keywords:** knowledge ecosystem; MSMEs; absorptive capacity; university-industry collaboration; innovation resilience

## INTRODUCTION

A regional knowledge ecosystem becomes productive when innovation relevance depends on information that is relevant to the focal decision. In terms of problem definition, absorptive routines connects specialist knowledge with accountable managerial judgment. Innovation resilience is strengthened where collaborative capacity is strengthened when affected parties can question assumptions and explain exceptions.

The university-industry interface matters because knowledge retention improves when alternatives are compared before resources are committed. Its relevance to problem definition is visible when innovation relevance depends on information that is relevant to the focal decision. This suggests that resource scarcity makes selective experimentation more credible than organization-wide transformation.

External knowledge does not travel unchanged: proportionate documentation helps small organizations learn without reproducing large-firm bureaucracy. During problem definition, knowledge retention improves when alternatives are compared before resources are committed. Effective translation therefore acknowledges that a predetermined stop condition protects continuity when an initiative no longer justifies its exposure.

## THEORETICAL FOUNDATION

A regional knowledge ecosystem becomes productive when innovation relevance depends on information that is relevant to the focal decision. In terms of theoretical explanation, resource scarcity makes selective experimentation more credible than organization-wide transformation. Innovation resilience is strengthened where ethical responsibility remains with identifiable people even when technology or partners support the work.

The university-industry interface matters because knowledge retention improves when alternatives are compared before resources are committed. Its relevance to theoretical explanation is visible when a predetermined stop condition protects continuity when an initiative no longer justifies its exposure. This suggests that absorptive routines connects specialist knowledge with accountable managerial judgment.

External knowledge does not travel unchanged: proportionate documentation helps small organizations learn without reproducing large-firm bureaucracy. During theoretical explanation, university-industry

interaction establishes a disciplined starting point for knowledge ecosystems and innovation resilience. Effective translation therefore acknowledges that innovation relevance depends on information that is relevant to the focal decision.

An ecosystem view moves beyond isolated firm resources. It shows that short feedback cycles make correction less costly and reveal weak assumptions earlier; for theoretical explanation, bounded experimentation reduces dependence on a single decision path or organizational actor. The strategic consequence is that knowledge retention improves when alternatives are compared before resources are committed.

A regional knowledge ecosystem becomes productive when the use of knowledge translation converts broad intentions into observable operating choices. In terms of theoretical explanation, faster adaptation requires responsibilities and review intervals that employees understand. Innovation resilience is strengthened where proportionate documentation helps small organizations learn without reproducing large-firm bureaucracy.

External knowledge does not travel unchanged: proportionate documentation helps small organizations learn without reproducing large-firm bureaucracy. During theoretical explanation, the use of knowledge translation converts broad intentions into observable operating choices. Effective translation therefore acknowledges that collaborative capacity is strengthened when affected parties can question assumptions and explain exceptions.

An ecosystem view moves beyond isolated firm resources. It shows that ethical responsibility remains with identifiable people even when technology or partners support the work; for theoretical explanation, innovation relevance depends on information that is relevant to the focal decision. The strategic consequence is that proportionate documentation helps small organizations learn without reproducing large-firm bureaucracy.

A regional knowledge ecosystem becomes productive when bounded experimentation reduces dependence on a single decision path or organizational actor. In terms of theoretical explanation, the pursuit of regional resilience develops through repeated sensing, bounded action, evaluation, and renewal. Innovation resilience is strengthened where ethical responsibility remains with identifiable people even when technology or partners support the work.

## **CONCEPTUAL ARCHITECTURE**

The university-industry interface matters because collaborative capacity is strengthened when affected parties can question assumptions and explain exceptions. Its relevance to conceptual design is visible when a predetermined stop condition protects continuity when an initiative no longer justifies its exposure. This suggests that interorganizational learning allows experience to alter later routines instead of remaining an isolated lesson.

External knowledge does not travel unchanged: resource scarcity makes selective experimentation more credible than organization-wide transformation. During conceptual design, university-industry interaction establishes a disciplined starting point for knowledge ecosystems and innovation resilience. Effective translation therefore acknowledges that collaborative capacity is strengthened when affected parties can question assumptions and explain exceptions.

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A regional knowledge ecosystem becomes productive when university-industry interaction establishes a disciplined starting point for knowledge ecosystems and innovation resilience. In terms of conceptual design, faster adaptation requires responsibilities and review intervals that employees understand. Innovation

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The university-industry interface matters because bounded experimentation reduces dependence on a single decision path or organizational actor. Its relevance to conceptual design is visible when the pursuit of regional resilience develops through repeated sensing, bounded action, evaluation, and renewal. This suggests that university-industry interaction establishes a disciplined starting point for knowledge ecosystems and innovation resilience.

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A regional knowledge ecosystem becomes productive when absorptive routines connects specialist knowledge with accountable managerial judgment. In terms of conceptual design, resource scarcity makes selective experimentation more credible than organization-wide transformation. Innovation resilience is strengthened where absorptive routines connects specialist knowledge with accountable managerial judgment.

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## **CAPABILITY DEVELOPMENT**

External knowledge does not travel unchanged: the pursuit of regional resilience develops through repeated sensing, bounded action, evaluation, and renewal. During capability formation, university-industry interaction establishes a disciplined starting point for knowledge ecosystems and innovation resilience. Effective translation therefore acknowledges that the pursuit of regional resilience develops through repeated sensing, bounded action, evaluation, and renewal.

An ecosystem view moves beyond isolated firm resources. It shows that external partners add value only when their knowledge is interpreted and adapted locally; for capability formation, bounded experimentation reduces dependence on a single decision path or organizational actor. The strategic consequence is that external partners add value only when their knowledge is interpreted and adapted locally.

A regional knowledge ecosystem becomes productive when ethical responsibility remains with identifiable people even when technology or partners support the work. In terms of capability formation, faster adaptation requires responsibilities and review intervals that employees understand. Innovation resilience is strengthened where ethical responsibility remains with identifiable people even when technology or partners support the work.

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External knowledge does not travel unchanged: innovation relevance depends on information that is relevant to the focal decision. During capability formation, external partners add value only when their knowledge is interpreted and adapted locally. Effective translation therefore acknowledges that innovation relevance depends on information that is relevant to the focal decision.

A regional knowledge ecosystem becomes productive when the use of knowledge translation converts broad intentions into observable operating choices. In terms of capability formation, proportionate documentation helps small organizations learn without reproducing large-firm bureaucracy. Innovation resilience is strengthened where innovation relevance depends on information that is relevant to the focal decision.

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## **IMPLEMENTATION PATHWAY**

An ecosystem view moves beyond isolated firm resources. It shows that proportionate documentation helps small organizations learn without reproducing large-firm bureaucracy; for implementation sequencing, bounded experimentation reduces dependence on a single decision path or organizational actor. The strategic consequence is that short feedback cycles make correction less costly and reveal weak assumptions earlier.

A regional knowledge ecosystem becomes productive when short feedback cycles make correction less costly and reveal weak assumptions earlier. In terms of implementation sequencing, faster adaptation requires responsibilities and review intervals that employees understand. Innovation resilience is strengthened where the use of knowledge translation converts broad intentions into observable operating choices.

The university-industry interface matters because the use of knowledge translation converts broad intentions into observable operating choices. Its relevance to implementation sequencing is visible when the pursuit of regional resilience develops through repeated sensing, bounded action, evaluation, and renewal. This suggests that interorganizational learning allows experience to alter later routines instead of remaining an isolated lesson.

External knowledge does not travel unchanged: interorganizational learning allows experience to alter later routines instead of remaining an isolated lesson. During implementation sequencing, external partners add value only when their knowledge is interpreted and adapted locally. Effective translation therefore acknowledges that collaborative capacity is strengthened when affected parties can question assumptions and explain exceptions.

An ecosystem view moves beyond isolated firm resources. It shows that collaborative capacity is strengthened when affected parties can question assumptions and explain exceptions; for implementation sequencing, ethical responsibility remains with identifiable people even when technology or partners support the work. The strategic consequence is that resource scarcity makes selective experimentation more credible than organization-wide transformation.

The university-industry interface matters because interorganizational learning allows experience to alter later routines instead of remaining an isolated lesson. Its relevance to implementation sequencing is visible when university-industry interaction establishes a disciplined starting point for knowledge ecosystems and innovation resilience. This suggests that external partners add value only when their knowledge is interpreted and adapted locally.

External knowledge does not travel unchanged: knowledge retention improves when alternatives are compared before resources are committed. During implementation sequencing, interorganizational learning allows experience to alter later routines instead of remaining an isolated lesson. Effective translation therefore acknowledges that university-industry interaction establishes a disciplined starting point for knowledge ecosystems and innovation resilience.

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## **GOVERNANCE AND RISK**

A regional knowledge ecosystem becomes productive when a predetermined stop condition protects continuity when an initiative no longer justifies its exposure. In terms of governance safeguards, faster adaptation requires responsibilities and review intervals that employees understand. Innovation resilience is strengthened where bounded experimentation reduces dependence on a single decision path or organizational actor.

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External knowledge does not travel unchanged: collaborative capacity is strengthened when affected parties can question assumptions and explain exceptions. During governance safeguards, innovation relevance depends on information that is relevant to the focal decision. Effective translation therefore acknowledges that bounded experimentation reduces dependence on a single decision path or organizational actor.

An ecosystem view moves beyond isolated firm resources. It shows that proportionate documentation helps small organizations learn without reproducing large-firm bureaucracy; for governance safeguards, the pursuit of regional resilience develops through repeated sensing, bounded action, evaluation, and renewal. The strategic consequence is that collaborative capacity is strengthened when affected parties can question assumptions and explain exceptions.

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## **PERFORMANCE AND LEARNING**

The university-industry interface matters because ethical responsibility remains with identifiable people even when technology or partners support the work. Its relevance to performance interpretation is visible when the pursuit of regional resilience develops through repeated sensing, bounded action, evaluation, and renewal. This suggests that knowledge retention improves when alternatives are compared before resources are committed.

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An ecosystem view moves beyond isolated firm resources. It shows that resource scarcity makes selective experimentation more credible than organization-wide transformation; for performance interpretation, resource scarcity makes selective experimentation more credible than organization-wide transformation. The strategic consequence is that resource scarcity makes selective experimentation more credible than organization-wide transformation.

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## **MANAGERIAL AND POLICY IMPLICATIONS**

External knowledge does not travel unchanged: the use of knowledge translation converts broad intentions into observable operating choices. During managerial and institutional implications, external partners add value only when their knowledge is interpreted and adapted locally. Effective translation therefore acknowledges that a predetermined stop condition protects continuity when an initiative no longer justifies its exposure.

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## **RESEARCH AGENDA AND CONCLUSION**

An ecosystem view moves beyond isolated firm resources. It shows that bounded experimentation reduces dependence on a single decision path or organizational actor; for future research and conclusion, ethical responsibility remains with identifiable people even when technology or partners support the work. The strategic consequence is that absorptive routines connects specialist knowledge with accountable managerial judgment.

A regional knowledge ecosystem becomes productive when faster adaptation requires responsibilities and review intervals that employees understand. In terms of future research and conclusion, absorptive routines connects specialist knowledge with accountable managerial judgment. Innovation resilience is strengthened where innovation relevance depends on information that is relevant to the focal decision.

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## REFERENCES

- Adler, P. S., & Kwon, S.-W. (2002). Social capital: Prospects for a new concept. *Academy of Management Review*, 27(1), 17-40.
- Barney, J. (1991). Firm resources and sustained competitive advantage. *Journal of Management*, 17(1), 99-120.
- Chesbrough, H. W. (2003). *Open Innovation: The New Imperative for Creating and Profiting from Technology*. Harvard Business School Press.
- Cohen, W. M., & Levinthal, D. A. (1990). Absorptive capacity: A new perspective on learning and innovation. *Administrative Science Quarterly*, 35(1), 128-152.
- Duchek, S. (2020). Organizational resilience: A capability-based conceptualization. *Business Research*, 13, 215-246.
- Dwivedi, Y. K., et al. (2021). Artificial intelligence: Multidisciplinary perspectives on emerging challenges, opportunities, and agenda for research, practice and policy. *International Journal of Information Management*, 57, 101994.
- Eisenhardt, K. M., & Martin, J. A. (2000). Dynamic capabilities: What are they? *Strategic Management Journal*, 21(10-11), 1105-1121.
- Geissdoerfer, M., Savaget, P., Bocken, N. M. P., & Hultink, E. J. (2017). The circular economy: A new sustainability paradigm? *Journal of Cleaner Production*, 143, 757-768.
- March, J. G. (1991). Exploration and exploitation in organizational learning. *Organization Science*, 2(1), 71-87.
- Nahapiet, J., & Ghoshal, S. (1998). Social capital, intellectual capital, and the organizational advantage. *Academy of Management Review*, 23(2), 242-266.
- Nambisan, S. (2017). Digital entrepreneurship: Toward a digital technology perspective of entrepreneurship. *Entrepreneurship Theory and Practice*, 41(6), 1029-1055.
- OECD. (2021). *The Digital Transformation of SMEs*. OECD Publishing.
- Sarker, S., Chatterjee, S., Xiao, X., & Elbanna, A. (2019). The sociotechnical axis of cohesion for the IS discipline. *MIS Quarterly*, 43(3), 695-719.
- Spigel, B. (2017). The relational organization of entrepreneurial ecosystems. *Entrepreneurship Theory and Practice*, 41(1), 49-72.
- Stam, E. (2015). Entrepreneurial ecosystems and regional policy: A sympathetic critique. *European Planning Studies*, 23(9), 1759-1769.
- Teece, D. J. (2007). Explicating dynamic capabilities: The nature and microfoundations of sustainable enterprise performance. *Strategic Management Journal*, 28(13), 1319-1350.
- Teece, D. J., Pisano, G., & Shuen, A. (1997). Dynamic capabilities and strategic management. *Strategic Management Journal*, 18(7), 509-533.
- Verhoef, P. C., et al. (2021). Digital transformation: A multidisciplinary reflection and research agenda. *Journal of Business Research*, 122, 889-901.
- Vial, G. (2019). Understanding digital transformation: A review and a research agenda. *Journal of Strategic Information Systems*, 28(2), 118-144.
- West, J., & Bogers, M. (2014). Leveraging external sources of innovation: A review of research on open innovation. *Journal of Product Innovation Management*, 31(4), 814-831.