Bridging Knowledge Gaps: Conceptual Frameworks for Inclusive Learning Dissemination in Development Impact Assessment

KUNAL DHAKU JADHAV, MEGHANA BHILARE, MUKESH PATIL, SYED SUMERA ALI

> **Abstract:** Impact assessment learning will only be able to be harnessed if it is shared effectively such that "good" practice becomes embedded at the agency and partner level, but regional development agencies will in many cases be unable to relate directly to remote or out-of-the-way stakeholders and hence the significance of the impact of work of evaluation. By leveraging these literatures, the paper addresses the long traditions of knowledge gaps in the field of development impact assessment and presents a comprehensive theoretical direction, that integrates knowledge from organizational learning perspective, knowledge management and multi-channel communication. Informed by multi-disciplinary research reviewing and synthesis of best practices identified from development program reviews, donor workshops, and practitioner-led case sharing, pathways for knowledge co-creation, contextual adaptation, and decentralized dissemination are outlined. The findings present an organized nuanced perspective of the barriers and enablers towards inclusive learning, especially hindrances towards the reach of stakeholder and uptake of learning in the marginalized community. Key recommendations emphasize the need to leverage low- and network- technology together with high-tech digital approaches, to empower local knowledge champions and to incorporate ongoing learning in program cycles. The resulting model is intended to offer practical advice to donor agencies, implementing partners in NGOs, and microenterprise program practitioners who want to institutionalize accessible diffusion of effective knowledge related to microenterprise support, in order to promote the equity and effectiveness of such interventions. The main added value comes from the suggestion of pragmatic ways of tackling the knowing-doing gaps and facilitating adaptive learning systems at a different stage of development.

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Introduction

Table 1. Critical barriers and enablers for inclusive knowledge dissemination

Factor Type	Example 1	Example 2	Example 3	Example 4
Barriers	Limited digital infrastructure	Language and literacy constraints	Centralized information flows	Resource limitations
Enablers	Analog and low-tech strategies	Network- based dissemination	Local knowledge champions	Continuous learning embedding

This table (1) summarizes key barriers and enablers affecting the inclusive dissemination of learning in development impact assessment.

The enhancement and translation of the impact assessment results into practical organisational learning is an ongoing problem for development agencies and is especially true of regional development agencies, where beneficiaries can be remote of even off-line. Limited information exchange and a reliance on face-to-face, oneshot events tend to dampen the spread and impact of lessons learned, hindering their ability to inform policy and practice. To address these challenges this paper extends the conceptual framework by integrating the body of knowledge relating to organizational learning, knowledge management and multi-channel communication in terms of facilitating knowledge dissemination that moves beyond traditional means. The mechanism samples lessons from development reviews, donor workshops, and practitioner-led knowledge-sharing, focusing on co-creation, contextual adaptation, and de-centralized dissemination paths. The framework provides structured advice on how to calculate reach, equity and robust feedback and also on identifying and surmounting dissemination challenges. Through its propositions, such as the relevance of analogy and networking solutions, and the role of local knowledge champions, this research seeks to better inform more equal learning in development programs, with implications for donor agencies, NGOs, and practitioners identifying paths to improve the practical contribution of monitoring and evaluation.

Knowledge Gaps in Development Impact Assessment

There remains a gap in knowledge regarding how the findings of an impact study can be used to influence actual change, especially among RDAs that are tasked with supporting microenterprise in distressed areas. They stem from obstacles such as absent communication pathways, closed feedback loops, the 'broken' knowledge transfer 'machine' and the mismatch between central assessment and locally learning needs (Bernays et al., 2023; Sors et al., 2023; Muir et al., 2023). That points to the importance of adopting an integrated approach combining OL, inclusive KMS and other self-mobilization to ensure the quality of the generated insights for program adaptation and policy, in particular for the most vulnerable or the furthest located stakeholders.

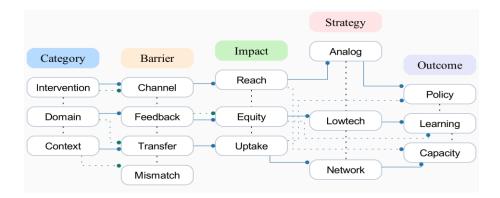


Figure 1. Taxonomy of knowledge gaps encountered in development impact assessment processes within regional development agencies, highlighting how barriers to information flow undermine the translation of evaluation findings into actionable learning for remote stakeholders. This figure contextualizes the structural challenges addressed by the proposed conceptual framework.

This figure (1) provides a visual taxonomy of the knowledge gaps that hinder organizational learning and the effective application of impact assessment insights among remote stakeholders in development agency contexts.

Research Aims and Objectives

This paper seeks to respond to this long-term problem of the translation of impact assessment findings into organisational learning and overall, the actionable change for regional development agencies, especially those serving remote or offline stakeholders. The overarching objective of the proposed research is to create a theoretical framework based on a combination of theories in organizational learning, knowledge management, and communication through multiple channels that can improve the spread of insights beyond traditional human-to-human approaches.

Specifically, we aim to: - Synthesize lessons learnt from development programme reviews, donor agency workshops and sharing of case studies to inform integrative knowledge pathways; - Map and analyse critical success factors, such as reach, equity, and feedback loops, regarding stakeholder engagement at a distance; - Create a structured taxonomy of barriers and enablers of dissemination; - Develop practical recommendations for enhancing knowledge flow that include analogy, low-tech, and network-based strategies; - Assess policy and operational design implications for institutionalising accessible learning cycles in various contexts (Wu et al., 2024; Merner et al., 2023; Peskett et al., 2023).

Literature Review

The theoretical literature on organizational learning and knowledge sharing in development organizations there are several frameworks which may be relevant to impact assessment and microenterprise development. Early studies underscore the importance of stakeholder engagement and transparency in interpreting impact assessment results into action in policy and on the ground (Potthoff et al., 2023; Merner et al., 2023). Recent studies also examine the mediator of technological innovation in the relationship between green knowledge transfer and sustainable business, for example, digitalisation strategies in SMEs (e.g., Wu, Wang, et al., 2024; Zhuge, Guo, et al., 2023). Learning-framework syntheses also reveal some of the most critical challenges of all: context, stakeholder capacity, governance, dissemination and reach, notably to those with no, or poor access. Current evidence endorses multilevel models addressing procedural and distributive equity within knowledge while highlighting the need to reinvigorate end-user participation in a continuous-improvement process (Giang et al., 2024; Sors et al., 2023).

Table 2. Comparison of knowledge dissemination frameworks in development

Framework/M odel	Core Characteristic s	Strengths	Challenges	Focus Area
Learning Health System (LHS)	Iterative stakeholder engagement, continuous data use	Practical adaptability, patient focus	Resource- intensive, context- dependent	Healthcare improvement
Green Knowledge Spiral	Tacit-explicit knowledge	Supports sustainability,	Requires digital maturity, may	Green transformatio n

	flow, digital mediation	enables innovation	bypass non- digital actors	
I-STEM Stakeholder Engagement	Systematic mapping, flexible engagement modalities	Comprehensiv e, fosters inclusivity	Time/resource demands, iterative complexity	Implementatio n science
Communities of Practice	Peer-driven, social learning emphasis	Builds trust, fosters local relevance	May reinforce silos, requires active facilitation	Organizationa I change, local adaptation

This table (2) compares key knowledge dissemination frameworks by their defining features, strengths, weaknesses, and applications in development contexts.

$$Learning\ Uptake\ Rate = \frac{N_{stakeholders\ adopting}}{N_{stakeholders\ reached}} \# (1)$$

Equation (1) defines the proportion of stakeholders reached by a dissemination initiative who subsequently adopt or apply the relevant knowledge or practices.

Organizational Learning and Knowledge Management Theories

a Theoretical Foundation for Project Impact Assessment in Learning Process Organizational learning and knowledge management theories provide important theoretical basis for the improvement of an inclusive learning technique in project impact assessment based on the interactive learning mechanism of the knowledge creation, transfer and use of the organization to achieving innovation and organisational flexibility. Central models, like the Knowledge Creation Spiral, demonstrate human knowledge conversion in the context of sustainable development and can benefit from the impact of digital transformation to establish enhanced green innovation theory and competitive advantage (Wu et al., 2024; Zhuge et al., 2023). Alternative models such as the learning health system, and communities of practice, highlight stakeholder engagement, iterative use of data and social learning which enable knowledge gaps to be bridged and solutions to be adapted to different local contexts (Merner et al., 2023; Pusic et al., 2023; King et al., 2023). Through mixing digital tools, participatory activities and systematic stakeholder mappings, they target complex processes of making evidence into politics and intervention, the addressing of contextual barriers and the enhancement of both the procedural and the substantial fairness of the communication of knowledge (Potthof et al., 2023, Giang et al., 2024).

Communication Channels and Stakeholder Inclusion

Effective communication mechanisms and thorough stakeholder engagement are key to advance a translation process for the diffusion of knowledge in development impact assessment and to create opportunities to influence organizational learning in terms of the use of results. There has been a wide range of communication pathways, spanning from the analogy of printed materials and in-person workshops, to digital channels like email, web portals, and online webinars, or to network based approaches like communities of practice and peer exchanges, which possess specific strengths and limitations in reach and access, especially in the case of remote or disconnected stakeholders. Modes of stakeholder inclusion need to be deliberately designed for equitable engagement and uptake across populations, considering take home pathways that can combat contextual barriers, like minimal digital infrastructure or administrative silos, to foster broad engagement by capitalizing on high- and low-tech solutions (Merner et al., 2023; Sors et al., 2023; King et al., 2023).

Table 3. Comparison of communication channels for knowledge dissemination

Channel Type	Strengths	Limitations	Ideal Use Cases
Analog (print, in- person sessions)	Tangible, accessible without technology	Low scalability, limited reach	Remote or low- connectivity settings
Digital (email, webinars, platforms)	Scalable, rapid dissemination	Requires digital access, potential exclusion	Urban or connected stakeholder groups
Network-based (peer exchanges, communities of practice)	Fosters engagement and trust, context adaptation	Needs facilitation, slow initial uptake	Sustained learning, diverse stakeholder inclusion
Hybrid (multi- channel integration)	Maximizes flexibility, combines strengths	Complex coordination, resource-intensive	Mixed environments, broad program rollout

This table (3) compares the main communication channels used in knowledge dissemination efforts, highlighting their respective strengths, weaknesses, and optimal application scenarios.

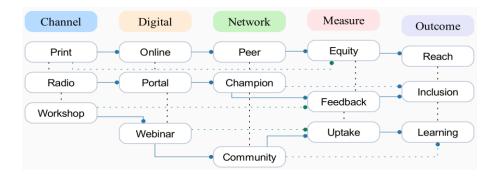


Figure 2. Illustration of communication channels and stakeholder inclusion pathways relevant to knowledge dissemination in development impact assessment. The figure visualizes various analog, digital, and network-based strategies for extending the reach of organizational learning beyond traditional symposia, highlighting approaches for engaging remote and offline stakeholders as discussed in the literature.

This figure (2) visualizes the range of communication channels and stakeholder inclusion strategies referenced in the literature for broadening the impact of development knowledge dissemination initiatives.

Conceptual Framework

The paper adopts a conceptual framework synthesis based on multi-disciplinary literature and integrative mapping to make sense of organizational learning and knowledge sharing in development impact assessment. The framework highlights the internal logic among stakeholder engagement, feedback driven learning processes, and the adaptive incorporation of learning mechanisms designed for microenterprise support and development agencies. Key features include dynamic stakeholder mapping, context-specific dissemination channels, feedback to support organizational adaptation and methods for evaluating the impacts of knowledge transfer. By combining organizational learning theory with knowledge sharing models, the model is a knowledge-based approach to inclusive and sustainable development outcomes (Greenhalgh et al., 2024; Pusic et al., 2023; Wu et al., 2024).

Framework Synthesis and Taxonomy

This section elucidates why and how a framework and taxonomy are hybridized to support knowledge sharing diffusion in DIA. Using multidisciplinary literature, the approach uses conceptual mapping to systematically conceptualise and bridge multiple domains in which organizational learning is discussed, including knowledge management, and impact evaluation (organization learning: Fenta et al., 2023 knowledge man-agreement: Potthoff et al., 2023 and impact evaluation: Pusic et al.,

2023). The synthesis applied integrative mapping to highlight areas for convergence and divergence, between existing and emergent models that have the potential to help identify key processes, pathways and to overcome challenges around knowledge sharing. Theoretical integrations such as these are a systematic thought world and it has their process of practical categorisation, recognition of gaps and convergences across practices. Use of taxonomies derived from similar models means that steered dimensions can be systematically classified (e.g. Stakeholder engagement, channel adaptability, process maturity and enabling mechanisms) to give a distinct roadmap for futures research and more specific applied programme development (Greenhalgh et al., 2024; Sors et al., 2024; Bernays et al., 2023).

Table 4. Core dimensions in the synthesized conceptual framework and taxonomy

Dimension	Description	Application Area
Stakeholder Engagement	Extent and diversity of participants involved in learning	Cross-sector knowledge dissemination
Channel Adaptability	Degree to which dissemination channels can be tailored to local contexts	Scalable impact across settings
Process Maturity	Level of development and routinization in learning processes	Organizational learning innovation
Enabling Mechanisms	Factors that facilitate inclusive knowledge transfer (e.g., feedback loops, trust structures)	Program delivery optimization
Knowledge Integration	Approaches for synthesizing and aligning new and legacy knowledge	Organizational memory reinforcement

This table (4) enumerates and describes the core dimensions established in the conceptual framework and taxonomy, highlighting their roles in structuring inclusive learning dissemination.

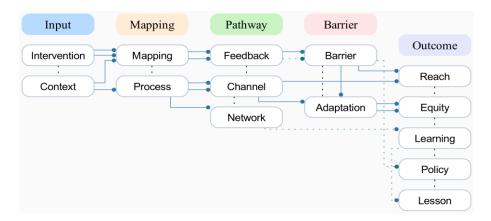


Figure 3. A synthesized conceptual framework visualizing the taxonomy of key organizational learning, knowledge management processes, and channels for knowledge dissemination in development impact assessment. This figure clarifies the relationships among theoretical components and highlights the structured pathways and barriers to effective inclusive learning.

This figure (3) provides an integrated visualization of the synthesized conceptual framework and taxonomy, illustrating structured relationships between learning processes, knowledge management pathways, dissemination channels, and barriers to inclusivity.

Integrative Pathways for Knowledge Dissemination

Table 5. Key integrative pathways in knowledge dissemination

Pathway	Defining Characteristics	Relevance to Organizational Learning	Impact on Stakeholder Engagement
Multi-channel Communication	Combines digital, analog, and peer exchange	Facilitates flexible uptake and redundancy	Enhances reach among diverse actors
Feedback- Integrated Learning	Systematic incorporation of participant feedback	Continuously adapts content and process	Builds trust and sustained engagement
Collaborative Stakeholder Mapping	Joint identification of priority groups and channels	Aligns efforts across actors, reduces silo effects	Targets dissemination to maximize relevance

Capacity-Building Modules	Emphasizes skills transfer beyond information delivery	Supports knowledge sustainability	Empowers microenterprises for ongoing learning
Contextual Adaptation	Tailors' strategies to local, cultural, or sectoral needs	Improves appropriateness and uptake	Accounts for diverse preferences and barriers

This table (5) summarizes principal integrative pathways for knowledge dissemination, focusing on their characteristics and their impact on organizational learning and stakeholder engagement.

$$Dissemination \ Effectiveness = \frac{N_{stakeholders \ demonstrating \ application}}{N_{stakeholders \ reached}} \# (2)$$

Equation (2) defines the dissemination effectiveness as the proportion of stakeholders reached who actively apply the disseminated knowledge or practice in relevant contexts.

By way of such integrated knowledge dissemination pathways, multi-channel communication, feedback-integrated learning and collaborative stakeholder mapping are employed to facilitate organizational learning in development impact assessment. By building upon organization capacity development and contextual fit, they encourage the dissemination of knowledge and ongoing use of the learning by microenterprise and other agency networks. Crucially, they are paths to an inclusive learning, along the lines of mapping as filling the gap between the centre and the periphery as well as between relevancy to the center or the center's position; and scaling up. Integrative mapping Integrative mapping brings competing perspectives of different theories to bear on development organizations and their efforts to implement and mix dissemination strategies to types of stakeholders (Greenhalgh et al., 2024; Potthoff et al., 2023; King et al., 2023).

Methodology

The study draws upon a conceptual framework synthesis and multi/interdisciplinary literature in taking the methodological step of using systematic mapping to identify core paths to within developments impact assessment dissemination for inclusive learning. The approach is centered around triangulating multiple fields and translating empirical learnings into a cohesive actionable framework. The study employs a process of the iterative review of literature and cross-sectoral theories to define, categorize and inter-relate key aspects of

dissemination practice with pre-defined evaluation indicators. The approach ensures that the developed constructs will be practical, useful, and adaptable, advancing knowledge transfer and sustained adoption across diverse users (Lin et al., 2024; Merner et al., 2023; Pusic et al., 2023).

Table 6. Comparative overview of framework evaluation metrics

Metric	Definition	Rationale	Relevance to Inclusive Learning Dissemination
Framework Applicability	Extent to which the conceptual model can be adapted to diverse development contexts	Ensures flexibility and generalizability	Supports broad uptake among varying environments
Stakeholder Reach	Number and diversity of stakeholders engaged through dissemination activities	Maximizes inclusivity and learning equity	Addresses knowledge gaps in underserved groups
Dissemination Effectiveness	Proportion of reached stakeholders who actively apply disseminated knowledge	Measures actual impact beyond mere exposure	Indicates depth of learning outcomes
Learning Uptake	Degree to which stakeholders internalize and sustain new knowledge or practices	Assesses retention and long-term value	Reinforces capacity building and ongoing adaptation
Policy Influence Potential	Capacity of framework outcomes to inform or shape policy decisions	Links learning dissemination with tangible policy change	Bridges research- practice gaps for sustainable impact

This table (6) presents and compares the five key metrics used to evaluate the

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conceptual framework, including their definitions, operational rationale, and relevance for inclusive learning dissemination.

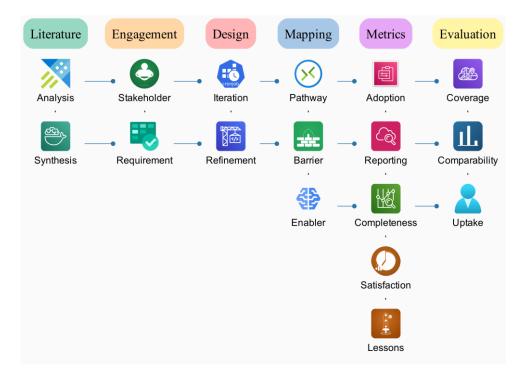


Figure 4. Overview of the conceptual framework synthesis process

This figure (4) depicts the methodological flow integrating multidisciplinary literature, mapping knowledge pathways, and defining metrics for framework evaluation.

Multidisciplinary Literature Integration

The analytical model for the dissemination of inclusive learning of development impact assessment draws on a range of disciplinary perspectives such as implementation science, health informatics, organizational learning, environmental studies, policy studies and the like. Methodological approach This drive for integration consists of using comparative framework analysis, theory mapping, and domain-specific best practice in the development of a model that can be both adopted and context dependent. Emphasis is given to the discovery of transferable mechanisms and core principles in effective knowledge transfer, including stakeholder engagement, the flexibility of dissemination strategies, and the incorporation of iterative feedback (Greenhalgh et al., 2024; Sors et al., 2023; Pusic

et al., 2023). Central comparative differences are made explicit to assess the potentials and vulnerabilities of these disciplinary approaches and their adequacy for inclusive knowledge integration.

Table 7. Comparison of disciplines informing integrative framework synthesis

Discipline	Central Focus	Methodological Contribution	Integration Challenge
Implementation Science	Translation of evidence into practice	Stakeholder mapping, engagement models	Variation in context specificity
Health Informatics	Digital transformation and data-driven learning	Data interoperability, learning system design	Technological access disparities
Organizational Learning	Sustained knowledge transfer, adaptation	Communities of practice, knowledge spirals	Overcoming silos and routinization gaps
Environmental Studies	Systems perspective, multi- scale impact	Socio-ecological modelling, scenario analysis	Integrating local knowledge and values
Policy Research	Program design, evaluation, and scalability	Framework validation, impact assessment	Aligning research and implementation timelines

This table (7) delineates the primary disciplines integrated into the conceptual framework, summarizing their methodological focus, principal contributions, and unique integration challenges.

Analysis

The analysis of inclusive learning diffusion indicates that the power of conceptual frameworks to penetrate particular stakeholders' communities operating in various development spheres is not always homogeneous. There are factors that also influence the processes by which organizations (agencies) learn such as the flexibility that the framework allows, how quickly agencies can modify frameworks and the level of engagement of stakeholders across program cycles (Greenhalgh et al., 2024; Potthoff et al., 2023). In terms of ways to support microenterprise, the

combination of digital and analogue dissemination approaches can most effectively lead to the adoption of learning by newly disadvantaged farmers or groups (Liu et al., 2025). Policy influences potential is associated with how well aspects of frameworks emerge from local knowledge and drive iterative stakeholder consultation processes that reinforce impact assessment and sustainable institutional adoption (Bautista-Puig et al., 2024).

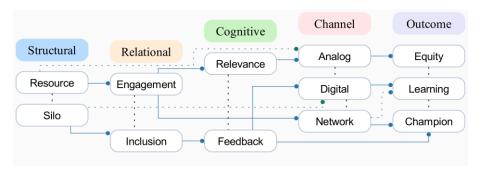


Figure 5. Taxonomy of barriers and enablers for inclusive knowledge dissemination

This figure (5) presents a categorized taxonomy of barriers and enablers relevant to achieving equitable knowledge dissemination, focusing on their influence in remote stakeholder contexts within development impact assessment.

Barriers and Enablers for Inclusive Dissemination

Diffusion of organizational learning across DIA is not an easy or linear process, and many barriers and enablers operate in order to affect the degree to which stakeholders and framework are relevant to, while the types of knowledge transferred through, the framework. These setting is the risk is that silos reduce cross-sector links, inability of multimedia strategies to reach very local needs (Greenhalgh et al., 2024), and existing programs do not adapt to the need of local people (Sors et al., 2023). Indirect enabling interventions, in contrast, comprise analogy and peermediated communication, socio-technical channel integration tailored to diverse participants, agile approaches to local adaptation, and processes for establishing trust for ongoing community engagement (Bernays et al., 2023; Muir et al., 2023). Attention to these elements is crucial for maximising the impact of policy and the uptake of learning, over time.

Table 8. Barriers and enablers in inclusive knowledge dissemination

Category	Factor	Implications for Metrics	
Barrier	Limited digital connectivity	Decreases stakeholder reach and applicability	
Barrier	Language and literacy constraints	Reduces dissemination effectiveness among underserved microenterprises	
Barrier	Siloed organizational structures	Limits learning uptake and shared policy influence	
Barrier	Centralized, one-size-fits-all frameworks	Restricts adaptability and relevance	
Enabler	Analog and local network channels	Enhances reach and applicability for non-digital stakeholders	
Enabler	Multi-channel, context-adaptive dissemination	Improves effectiveness and inclusivity	
Enabler	Trust-building and peer facilitation	Promotes learning uptake and sustained engagement	
Enabler	Participatory co-design of frameworks	Increases policy influence and local ownership	

This table (8) compares salient barriers and enablers for inclusive knowledge dissemination, highlighting their implications for framework applicability and core evaluation metrics.

Discussion

Table 9. Critical analysis of framework evaluation metrics in inclusive learning dissemination

Metric	Role in the Framework	Challenges in Assessment	Implications for Practice
Framework Applicability	Facilitates use across diverse development settings	Contextual adaptation, resource variation	Requires iterative tailoring and stakeholder alignment
Stakeholder Reach	Ensures inclusivity of remote and offline participants	Measuring true audience diversity,	Mandates hybrid or analog strategies

		overcoming digital divides	
Dissemination Effectiveness	Tracks conversion from exposure to knowledge application	Attribution, monitoring actual change	Highlights need for ongoing feedback and support
Learning Uptake	Reflects longer- term internalization and sustainability of knowledge	Differentiating passive vs. active adoption, data collection limitations	Underscores importance of local capacity building and reinforcement
Policy Influence Potential	Measures translation of learning into concrete policy shifts	Evaluating causal pathways from knowledge to action	Calls for longitudinal monitoring and policy tracking

This table (9) synthesizes a critical comparison of the five-evaluation metrics, addressing their functions, assessment challenges, and outcomes for practical implementation.

The system framework enhances leverage from the learnings of impact assessment being acted upon and thus removes or reduces the lack of knowledge transfer to the embedded and remote stakeholder in the field. By integrating organizational learning theory, knowledge management and multichannel communication strategies, the framework bridges traditional dissemination (e.g. physical symposia) and scalable means of engaging actors situated across the country (Labkoff et al. This synthesis highlights the tactical advantage of this hybridization of the analog, low-tech and digital to extend the equity and reach of learning. The model has implications for learning in regions where development intermediaries are operating in wicked contexts insofar as it shows that co-creation of knowledge and decentralised diffusion is crucial for embedding lessons learned. It also addresses the need for adaptive feedback loops and local capacity uptake, situating organisational learning as a fluid, locally responsive process that transcends formal modes of learning. Importantly, the framework offers a taxonomy of barriers and enablers, and a set of actionable recommendations for embedding learning across programme cycles that will challenge donors and pract itiona's alike to embed strong, inclusive knowledge flows.

Conclusion

This paper highlights the ongoing difficulties of translating the findings of impact assessment into actionable organizational learning, particularly in the case of regional development agencies based in sub-Saharan Africa where stakeholders are often remote and/or offline. Synthesizing prior work on organizational learning theory, knowledge management strategies and multi-channel communication dynamics, these conceptual tools respond to limitations of in-person learning contextualization, advancing knowledge co-creation. symposia dissemination. Key takeaways are to embrace analog, low-tech, and networked approaches in addition to digital channels, to develop local knowledge champions, and to institutionalize learning within program cycles. They are not "prescriptions" but rather suggestions for donor agencies, NGOs and implementers aiming to narrow the equity and effectiveness gap in knowledge flows and to reinforce the potential of M&E in sustainable microenterprise support (Wu et al., 2024; Sors et al., 2023; Pusic et al., 2023).

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