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UNDERSTANDING BARRIERS TO IPD ADOPTION IN CONSTRUCTION SMES: INSIGHTS FROM A COLLABORATIVE WORKSHOP

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ABSTRACT

Integrated Project Delivery (IPD) is a collaborative project delivery approach intended to address fragmentation in construction projects. Despite documented benefits, its adoption among small and medium-sized enterprises (SMEs) remains limited, particularly due to challenges related to organizational practices, culture, and readiness for collaboration. Existing literature acknowledges these issues, yet empirical evidence capturing how such barriers are perceived and discussed by practitioners in SME contexts is still limited. This paper reports findings from a structured collaborative workshop conducted with construction professionals from SMEs operating in Alberta, Canada. The workshop was informed by Lean Construction principles and designed to facilitate practitioner discussion and reflection on IPD adoption. Qualitative data generated during the workshop were analyzed using thematic coding. Five thematic areas were used to structure the analysis: trust-based collaboration, knowledge and training gaps, implementation challenges, financial and risk-related concerns, and limitations in performance measurement. The findings indicate that IPD adoption among SMEs is shaped primarily by human and organizational conditions rather than technical considerations. The study indicates that structured collaborative workshops can support the identification of organizational barriers while enabling shared understanding of IPD-related challenges within SME environments.

KEYWORDS

Integrated Project Delivery (IPD), collaboration, trust, lean construction, small and medium-sized enterprises (SMEs).

INTRODUCTION

Integrated Project Delivery (IPD) has been proposed as a collaborative project delivery approach aimed at reducing fragmentation and misalignment among construction project stakeholders (El Asmar et al., 2013). By promoting early stakeholder involvement, shared project goals, and relational contracting arrangements, IPD seeks to improve collaboration and overall project performance across cost, schedule, and stakeholder satisfaction outcomes (Franz

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et al., 2017; Kent & Becerik-Gerber, 2010). Despite these anticipated benefits, empirical studies indicate that IPD adoption remains limited, particularly beyond large or highly resourced organizations with prior experience in collaborative delivery models (Ghassemi & Becerik-Gerber, 2011; Kahvandi et al., 2019). Evidence from IGLC research further indicates that IPD adoption in emerging contexts is shaped by institutional, contractual, and organizational conditions that influence readiness for integrated delivery (Pal & Nassarudin, 2020; Weinmann et al., 2024).

IPD is not only a general collaborative aspiration, but a delivery approach typically characterized by early involvement of key participants, shared risk and reward, joint decision-making, relational coordination, and contractual structures intended to align project goals across core stakeholders. These elements distinguish IPD from more traditional delivery arrangements in which responsibilities, incentives, and decision-making remain more fragmented. For SMEs, these same defining characteristics may create entry barriers as well as opportunities. Early participation requires capacity and availability during front-end project stages, shared risk structures may be difficult to absorb under limited financial reserves, and collaborative governance requires organizational readiness that smaller firms may still be developing. Clarifying these core features is therefore important for understanding not only what IPD is, but why its adoption may be particularly challenging in SME environments.

Small and medium-sized enterprises (SMEs), which represent the vast majority of firms operating within the construction sector, face constraints that can affect their engagement with collaborative delivery approaches such as IPD. In Alberta, SMEs account for approximately 95% of all businesses, with a significant presence in construction-related activities (Government of Alberta, 2024). Prior research has identified limitations related to financial capacity, access to specialized training, and exposure to contractual and financial risk as factors influencing SMEs' willingness to participate in unfamiliar delivery arrangements (Kent & Becerik-Gerber, 2010; Kahvandi et al., 2019; Roy et al., 2018). Within this context, IPD is often viewed as complex or difficult to align with existing organizational practices and delivery capabilities. IGLC research focusing specifically on SMEs further indicates that IPD frameworks and collaboration models developed for large projects may have limited feasibility in SME contexts due to technological, financial, and managerial constraints (Vaitla et al., 2022).

Beyond contractual and financial considerations, prior research indicates that IPD adoption is strongly influenced by human and organizational conditions, including trust, learning capacity, and internal cultural practices. Studies examining IPD implementation indicate that limited collaborative experience, gaps in training, and misalignment between existing internal processes and IPD requirements can constrain adoption (Osman et al., 2015). In SME environments, where learning often occurs through project-based experience rather than formalized training structures, these organizational characteristics shape how firms interpret collaboration, control, and shared responsibility (Kent & Becerik-Gerber, 2010; Ghassemi & Becerik-Gerber, 2011). IGLC research further highlights that organizational structures, managerial approaches, and internal culture play a critical role in shaping how integrated delivery models are enacted in practice, particularly in emerging IPD contexts (Ankomah et al., 2018; Weinmann et al., 2024). Together, this body of research suggests that IPD adoption among SMEs is less a technical transition and more a process of organizational and cultural change. Research also indicates that implementation outcomes are influenced by how risk, responsibility, and collaboration are distributed across contracting and subcontracting relationships. IGLC case-based research on subcontractor participation in IPD reports that while collaborative arrangements can offer operational and relational benefits, challenges related to contractual adaptation and risk management remain significant, particularly for smaller or less resourced project participants (Meléndez et al., 2025). These findings underscore

the importance of considering contractual and risk-related dynamics when examining IPD adoption among SMEs.

Lean Construction provides a useful perspective for examining these conditions. Lean has been conceptualized as a socio-technical approach in which technical practices and social dynamics are closely interconnected, emphasizing collaboration, learning, and the relational aspects of project work (González et al., 2015). From this perspective, attention is placed on making work processes visible, fostering shared understanding, and supporting collective learning among project participants. These principles align with key requirements associated with Integrated Project Delivery, including early involvement, joint problem solving, and shared accountability.

Lean-informed approaches also emphasize structured interaction, dialogue, and reflection as mechanisms for learning and improvement, rather than reliance on predefined procedural solutions (Ballard & Howell, 2003). Such an orientation is particularly relevant in SME contexts, where formalized processes and dedicated improvement resources may be limited and learning often occurs through experience and interpersonal exchange (Sacks et al., 2010). Within this study, Lean principles informed the design of a collaborative workshop intended to create a structured space for practitioner interaction and reflection on IPD adoption.

The objective of this paper is to examine perceived barriers and enabling conditions influencing the adoption of Integrated Project Delivery among small and medium-sized enterprises in the construction sector, with particular attention to the human, organizational, and contractual conditions shaping collaboration. Drawing on empirical data generated through a structured, Lean-informed collaborative workshop conducted in Alberta, Canada, the study explores how practitioners from SMEs perceive and articulate challenges associated with IPD adoption within an emerging IPD context. The paper next presents the research design and method, followed by the findings, discussion, and conclusions.

RESEARCH DESIGN AND METHOD

This study adopted a qualitative, exploratory research design to examine perceived barriers to Integrated Project Delivery (IPD) adoption among construction small and medium-sized enterprises (SMEs) in Alberta, Canada. A workshop-based design was selected because the study aimed to capture practitioner perspectives on collaboration, organizational readiness, implementation challenges, and perceived risk in relation to IPD. These issues are context-dependent and closely tied to experience, organizational culture, and inter-organizational interaction, making them suitable for qualitative inquiry rather than survey-based measurement alone. Prior IPD and Lean Construction research has similarly used qualitative and practitioner-centered approaches to investigate barriers related to collaboration, trust, organizational change, and project integration (e.g., Ghassemi and Becerik-Gerber 2011; Franz et al. 2017; Ballard and Howell 2003).

A structured collaborative workshop was used as the primary data generation method. The workshop format was chosen because it allowed participants to reflect collectively on their experiences, compare viewpoints across organizational roles, and discuss both barriers and possible enabling conditions for IPD adoption. In addition to verbal discussion, the workshop incorporated structured written inputs to support participation from individuals who may have been less likely to contribute extensively in open discussion. This combination of facilitated dialogue and written group responses strengthened the transparency of the data collection process and addressed concerns related to group dynamics and uneven participation.

WORKSHOP DESIGN AND CONTEXT

The workshop was designed as an interactive, Lean-informed session structured around dialogue, reflection, and respect for practitioner knowledge. Rather than serving as a training

seminar, the session was intended to create a structured space in which participants could discuss current industry practices, reflect on perceived barriers to IPD adoption, and identify conditions that could make collaborative delivery more feasible for SMEs. The Alberta context was selected because IPD adoption in the region remains emergent and because SMEs continue to play a central role in the provincial construction sector under predominantly conventional delivery arrangements.

The workshop was conducted as a single facilitated session lasting approximately five hours, including introductory activities, two structured group activities, and final reflections. The session was organized around five analytical themes identified through the literature review: trust-based collaboration, knowledge and training, technological and implementation barriers, financial and risk concerns, and performance measurement and evaluation. These themes provided the initial structure for the workshop design, while still allowing participants to raise concerns and insights in their own terms.

The workshop activities were carried out in two main stages. In Activity 1, participants discussed barriers associated with each thematic area using a structured digital response form containing closed- and open-ended prompts. These prompts asked, for example, how project teams are usually formed, how trust is established, whether participants had prior familiarity with IPD or Lean delivery, what limits digital tool adoption, whether they would be open to shared risk and reward models, and how project success is currently evaluated. In Activity 2, participants discussed possible solutions and enabling conditions using a facilitator discussion guide that linked each thematic area to a summary chart and a set of solution-oriented prompts. These prompts encouraged discussion around issues such as earlier SME inclusion in team selection, accessible training formats, shared digital tools, simplified risk-sharing arrangements, and fairer ways of defining collective performance.

PARTICIPANT RECRUITMENT AND PROFILE

Participants were recruited through purposive and snowball sampling to capture perspectives relevant to SME participation in collaborative delivery. Recruitment was supported through industry outreach and workshop registration. The registration form collected information on participant role or position, area of construction experience, prior exposure to IPD, and preferred attendance mode.

The participant group consisted of 13 construction professionals from a range of organizational and professional backgrounds, including contractor, consultant, design/engineering, development, and academic contexts. This diversity allowed the discussion to reflect multiple perspectives on project delivery, collaboration, and organizational readiness for IPD. Prior familiarity with IPD varied across participants, which was valuable for capturing both informed and exploratory perspectives on adoption barriers. At the same time, this diversity also represents a limitation, as not all participants came exclusively from SME organizations; therefore, some observations reflect a broader industry perspective rather than only SME experience. This limitation is acknowledged in the interpretation of the findings.

FACILITATION AND GROUP DYNAMICS

Participants were organized into small discussion groups to support interaction and reduce the likelihood that only the most vocal individuals would dominate the conversation. Group activities combined verbal discussion with written group submissions, allowing participants to contribute through more than one format. Each group designated one person to record the group's responses through the structured digital response form, while a neutral moderator documented key discussion points, disagreements, and contextual observations. This dual-input structure helped preserve both the group's formal response and the broader discussion that informed it.

The workshop also included introductory conversation and guided reflection before the main activities, which helped establish rapport and promote discussion across participants with different professional backgrounds and levels of familiarity with IPD. Because the workshop dealt with a collaborative delivery model that some participants knew well and others knew only in limited terms, this structure helped create a more balanced environment for participation.

DATA COLLECTION

Qualitative data were generated from multiple sources during the workshop. These sources included:

1. facilitated small-group discussions,
2. structured written group responses collected during Activity 1 and Activity 2,
3. moderator notes documenting key observations, points of agreement and disagreement, and contextual comments, and
4. audio-recorded discussion later transcribed for analysis.

In this study, the term written artifacts refers to the structured written outputs generated by participant groups during the workshop activities, together with any written summaries captured during facilitation. The term *qualitative data* therefore refers collectively to the workshop transcripts, written group responses, and moderator observations. Using these multiple sources helped capture both what groups formally reported and how participants discussed the issues in interaction.

DATA ANALYSIS

The workshop-generated data were analyzed using a thematic approach that combined deductive and inductive logic. The five thematic areas were literature-informed and used to structure both the workshop design and the initial analytical framework: trust-based collaboration, knowledge and training, technological and implementation barriers, financial and risk concerns, and performance measurement and evaluation. However, the analysis was not limited to confirming these categories. It remained open to emergent issues, nuances, and tensions raised by participants, particularly where practitioner perspectives complicated or refined the barriers identified in prior research.

The analysis proceeded in three steps. First, workshop discussions were reviewed through audio recordings and transcripts together with the written group responses and moderator notes. Second, the material was coded and organized within the five initial thematic areas to assess how participant perspectives aligned with or expanded the issues identified in prior literature. Third, attention was given to cross-cutting insights and contextual nuances emerging from the workshop, including the practical ways in which barriers interacted within SME environments. Although the five themes remained analytically useful, the goal of the analysis was not simply to confirm the literature, but to examine how participants interpreted, reinforced, challenged, or refined these issues in practice.

This analytical strategy was appropriate because the study sought to connect a literature-informed framework with practitioner-generated discussion. The predefined themes provided structure and comparability, while the workshop data allowed the analysis to remain grounded in the experiences and perceptions articulated by participants. The findings should therefore be interpreted as exploratory and context-specific rather than statistically generalizable.

FINDINGS

Findings are reported using the five thematic areas that structured both the workshop activities and the subsequent analysis. Participant discussions and written inputs provided empirical

detail on how each theme was experienced in SME settings and how these issues shaped perceptions of IPD feasibility in day-to-day practice.

To illustrate how participants articulated these issues in their own words, Table 1 presents representative anonymous quotes organized within the five literature-informed thematic areas used in the analysis. Although these themes provided the initial structure for interpretation, the analysis remained attentive to contextual nuances and practitioner-generated insights emerging during the workshop.

Table 1. Representative anonymous participant quotes by thematic area

Thematic Area	Representative Anonymous Quotes
Trust-Based Collaboration	"Historically, we don't trust each other. Can you bench that PTSD from legacy projects and come into the room with humility and say, okay, let's actually work together for the benefit of the project, not just our own organizations." (Participant, Group 2) "People make a difference. You see loyalties follow people, not just firms. Trust is often tied to who you've worked with before." (Participant, Group 3)
Knowledge and Training Gaps	"We hear about IPD and lean, but there are people in our organizations who could step into this and others who would not be able to do this at all well." (Participant, Group 3) "There's a big unlearning piece. Everyone's been beat up by the industry, and that legacy mindset has to be addressed through education and mentorship." (Participant, Group 2)
Implementation Challenges	"With limited staff, it's hard to add new collaborative processes. There's no time for all of our people to be digitally competent in 3D modelling." (Participant, Group 2) "It ends up that a few specialists carry the load, and everyone else depends on them. That creates bottlenecks for collaboration." (Participant, Group 2)
Financial and Risk-Related Concerns	"If you're a smaller company, spending months in validation and design means you're not making money, because you make money in construction." (Participant, Group 2) "Shared risk sounds good, but if costs go up and the profit pool gets eaten, we're making less money. For SMEs, that's a big concern." (Participant, Group 3)
Performance Measurement and Evaluation Limitations	"We don't really have ways to measure collaboration or learning. If you can't show performance benefits, it's hard to justify changing how you work." (Participant, Group 3) "High-performing teams get selected. If you can't demonstrate performance with solid project controls, you're not going to be sought after for collaborative projects." (Participant, Group 3)

TRUST-BASED COLLABORATION

Trust featured prominently across discussions as a condition shaping participants' willingness to engage in IPD arrangements, particularly in situations where project partners had limited prior experience working collaboratively.

Several participants referred to prevailing industry practices as reinforcing adversarial relationships. These practices were described as making it difficult to shift toward the relational modes of interaction associated with IPD. Trust was discussed not only in interpersonal terms, but also as an organizational issue influenced by previous project outcomes, contractual expectations, and perceptions of risk exposure. In this context, trust-based collaboration emerged as a foundational requirement for IPD adoption that participants viewed as challenging to establish within existing delivery environments.

KNOWLEDGE AND TRAINING GAPS

Limited knowledge and training related to IPD principles and practices constituted a second recurring theme. Across discussions, participants acknowledged limited familiarity with IPD concepts, processes, and role definitions, particularly beyond an abstract or conceptual level. This lack of understanding was described as constraining meaningful participation in collaborative delivery and contributing to uncertainty about how IPD would function in practice.

Participants emphasized that learning within SMEs largely occurs through project-based experience rather than through formalized training structures, contributing to uncertainty about whether existing organizational capabilities align with the expectations of integrated delivery. Participants also highlighted the need for practical and accessible learning opportunities grounded in SME operational realities.

IMPLEMENTATION CHALLENGES

Practical challenges associated with implementing IPD within existing organizational structures were discussed as a distinct area of concern. Participants described difficulties related to role clarity, decision-making authority, and coordination among project stakeholders when attempting to work in more integrated ways.

Within SME environments, these challenges were frequently associated with limited internal resources and the need to balance participation in collaborative activities with ongoing operational responsibilities. In the absence of clear guidance and supportive project conditions, implementation efforts were perceived as disruptive to established workflows and as adding complexity without corresponding organizational support.

FINANCIAL AND RISK-RELATED CONCERNS

Financial exposure and risk allocation were raised consistently as factors influencing decisions about IPD participation. Participants expressed concern about unfamiliar contractual arrangements and shared risk structures, particularly in relation to cost recovery and liability. For SMEs operating with narrow margins, these uncertainties were described as difficult to absorb.

Discussions also reflected apprehension about how financial risks would be distributed among project participants and the degree of control SMEs would retain over financial outcomes. These concerns were frequently discussed alongside issues of transparency and information sharing, suggesting that financial considerations were closely intertwined with broader trust-related concerns within collaborative delivery environments.

PERFORMANCE MEASUREMENT AND EVALUATION LIMITATIONS

Limitations in existing performance measurement and evaluation practices emerged as an additional theme affecting IPD adoption. Participants described traditional performance metrics

as poorly suited to capturing collaborative processes and relational outcomes associated with IPD, such as coordination, learning, and shared value creation.

The absence of clear and widely understood indicators to assess these aspects contributed to uncertainty about the benefits of adopting IPD practices. Participants noted that without appropriate evaluation frameworks, SMEs face challenges in assessing the value of collaborative delivery approaches and in justifying the organizational investment required to support their implementation.

DISCUSSION

The findings indicate that barriers to IPD adoption among construction SMEs are embedded in how collaboration, learning, and risk are understood and enacted in practice. While prior IPD research emphasizes collaboration, trust, and integration as critical success factors, this study contributes empirical insight into how these issues are interpreted and discussed by practitioners in SME environments through workshop-based dialogue.

HUMAN AND CULTURAL BARRIERS TO IPD ADOPTION IN SME CONTEXTS

The central role of trust identified in the findings aligns with existing research suggesting that IPD adoption requires a shift in relational practices within the construction industry (Franz et al., 2017; Pishdad-Bozorgi, 2017). In SME contexts, where project relationships are often shaped by prior experience, informal networks, and repeated interactions, limited trust was described as constraining willingness to engage in collaborative delivery arrangements. Concerns related to transparency, role clarity, and perceived loss of control point to cultural patterns that influence how collaboration is enacted in practice, rather than deficiencies in technical capability.

Knowledge and training gaps further illustrate the human dimension of IPD adoption. Consistent with prior studies, limited familiarity with IPD principles was associated not only with uncertainty about implementation, but also with reluctance to engage in delivery models perceived as complex or risky (Kent & Becerik-Gerber, 2010; Osman et al., 2015). Within SME environments, where learning tends to occur through project-based experience rather than formalized training structures, these gaps appear to shape cautious attitudes toward integrated delivery approaches.

Taken together, these findings support framing IPD adoption among SMEs as a process of organizational change rather than a technical transition. Readiness for IPD is influenced by how organizations interpret collaboration, risk, and shared responsibility based on prior experience, learning mechanisms, and relational norms. From this perspective, formal contractual arrangements alone are insufficient to enable collaborative delivery without corresponding shifts in organizational understanding and practice.

These findings both align with and extend prior student-led and practitioner-focused IPD studies conducted in other regional contexts. For example, Abou Dargham et al. (2019) reported trust, resistance to change, and organizational readiness as key challenges to IPD implementation in Lebanon, while Hamzeh et al. (2019) emphasized collaboration and cultural alignment as critical enablers in a Middle East context.

In contrast to these studies, which largely examine IPD implementation in environments characterized by different institutional arrangements and market structures, the present study highlights how similar relational barriers are experienced within SME-dominated project environments in Alberta, where limited organizational capacity, informal learning structures, and heightened financial sensitivity further constrain willingness to engage in collaborative delivery. This contrast suggests that while trust and cultural alignment are common challenges across contexts, their practical implications for IPD adoption are shaped by firm size, regional contracting practices, and the degree of organizational slack available to support change.

THE ROLE OF STRUCTURED COLLABORATIVE WORKSHOPS IN ENABLING CHANGE

The structured, Lean-informed collaborative workshop functioned as a mechanism for making human and organizational barriers to IPD adoption explicit. By creating a facilitated setting for dialogue and reflection, the workshop enabled participants to articulate concerns that may remain implicit within conventional project environments. This aligns with Lean Construction perspectives that emphasize learning, respect for people, and shared understanding as foundations for improvement (Ballard & Howell, 2003; Sacks et al., 2010).

Beyond identifying barriers, the workshop also supported reflective discussion among participants regarding existing practices and organizational assumptions. Comparing experiences across organizations prompted consideration of how individual behaviours, routines, and norms influence collaborative outcomes. In this sense, the workshop served not only as a data generation method, but also as a learning-oriented intervention that initiated reflection on organizational readiness and capability.

The findings suggest that such structured workshops can help SMEs move from abstract awareness of IPD concepts toward a more grounded understanding of collaboration in practice. By lowering barriers to participation and providing a low-risk environment for discussion, collaborative workshops may support engagement with IPD as a relational and cultural shift rather than as a prescriptive contractual model.

This emphasis on collaboration and stakeholder integration aligns with prior IPD research that highlights the importance of structured mechanisms for assessing and strengthening integration among project participants (Malaeb & Hamzeh, 2021). However, whereas prior studies primarily focus on measuring or assessing levels of integration at the project or system level, the present study demonstrates how facilitated, Lean-informed workshops can function as an early-stage, learning-oriented intervention that enables SMEs to surface concerns and reflect on organizational readiness prior to formal IPD implementation. This contrast highlights the workshop not only as an analytical tool, but also as a practical mechanism for supporting capability development in resource-constrained SME contexts.

CONTEXTUAL CONSIDERATIONS: SMES AND THE ALBERTA CONSTRUCTION SECTOR

Situating the findings within the Alberta construction sector provides additional insight into the challenges identified. IPD adoption in Alberta remains limited, with traditional delivery models continuing to dominate practice. Within this context, SMEs often operate under financial constraints and risk exposure that heighten sensitivity to shared risk arrangements, performance measurement, and accountability.

Participants' emphasis on financial and risk-related concerns reflects not only organizational limitations, but also broader industry norms and regulatory conditions shaping project delivery in the region. These conditions suggest that efforts to support IPD adoption among SMEs must account for local contractual practices, institutional arrangements, and power dynamics. In particular, project owners may play a critical role in establishing conditions that reduce uncertainty and encourage collaborative behaviour.

Similar financial and risk-related sensitivities have been reported in IPD studies conducted in other regional contexts (Abou Dargham et al., 2019; Hamzeh et al., 2019). However, in contrast to settings where larger organizations or public-sector projects may absorb shared risk more readily, participants in this study emphasized the disproportionate impact of financial uncertainty on SMEs operating under tight margins. This contrast underscores how firm size and regional market conditions intensify the perceived consequences of shared risk arrangements, shaping more cautious attitudes toward IPD adoption in the Alberta SME context.

By grounding the discussion in the Alberta context, this study underscores the importance of considering how regional and organizational conditions shape the feasibility of collaborative delivery models. While the themes identified may be relevant to SMEs in other regions, their manifestation and relative significance are influenced by contextual factors that should be carefully considered when transferring or adapting IPD-related approaches.

CONCLUSIONS

This paper examined perceived barriers and enabling conditions influencing IPD adoption among construction SMEs through a qualitative study based on a structured, Lean-informed collaborative workshop conducted in Alberta, Canada. The findings indicate that barriers to adoption are shaped less by technical considerations alone than by human, organizational, and contractual conditions affecting collaboration, learning, implementation capacity, perceived risk, and performance evaluation.

Based on practitioner perspectives, the study supports understanding IPD adoption among SMEs as a process of organizational and cultural change rather than a purely technical or contractual transition. Trust, knowledge and training gaps, implementation capacity, financial exposure, and limitations in performance measurement emerged as interrelated conditions shaping SME readiness for collaborative delivery.

The workshop also demonstrated value as both a research method and a practical reflective space. By enabling participants to discuss barriers, compare perspectives, and articulate possible enabling conditions, the workshop helped make organizational and relational challenges more visible within an emerging IPD context.

This study has limitations. The findings are based on a single workshop conducted within a specific regional context and should therefore be interpreted as exploratory and context-specific rather than statistically generalizable. In addition, the participant group was not composed exclusively of SME representatives, which means that some observations reflect a broader industry perspective.

Future research could examine similar workshop-based interventions across different regions or project types, explore how repeated use of such interventions influences organizational learning and trust over time, and investigate how reflective dialogue can be connected more directly to project-level implementation and measurable outcomes.

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