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## Leading Human-AI Collaboration for Strategic Innovation: Facilitation & Governance

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**Abstract:** Generative Artificial Intelligence (GenAI) is rapidly entering organizations and reshaping expectations for strategic innovation, yet many firms struggle to move beyond fragmented and ad hoc use. While prior research has examined AI in leadership and decision-making, limited attention has been paid to how leaders facilitate and govern human–GenAI collaboration in innovation contexts. This paper aims to provide a deeper understanding of how leadership practices and boundary conditions enable the transition from experimentation to institutionalized GenAI adoption in strategic innovation. The study draws on qualitative interview data from innovation leaders in organizations that apply GenAI and thereby adopts an inductive, theory-building approach. The results are presented in an empirically grounded framework linking leadership practices, governance mechanisms, and contextual drivers to collaboration patterns and innovation outcomes. Our framework conceptualizes human–GenAI collaboration as a leadership-driven capability and thereby contributes to innovation management research and provides actionable guidance for embedding GenAI into strategic innovation processes.

**Keywords:** Leadership; Generative AI; Strategic Innovation; Human–AI Collaboration; Innovation Governance; Institutionalization; Innovation Capabilities; AI Adoption; Organizational Design

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## 1 Introduction

According to Capgemini Research Institute (2024), 54% of companies believe that generative artificial intelligence (GenAI) has the potential to significantly change their company strategy. It impacts organizational practices and strategic innovation, offers both possibilities and obstacles for innovation efforts (Zhang, Zuo & Yang, 2025) and is applied for idea generation, opportunity evaluation, innovation activities and experimentation (Mariani & Dwivedi, 2024). Yet early experimentation often fails to develop into sustained capability because GenAI initiatives remain fragmented and weakly embedded in routines and governance (Gama & Magistretti, 2025).

Research has examined AI in managerial decision-making, adoption behavior, and employee engagement (Bevilacqua et al., 2025; Zhao et al., 2025; Zhang, Song, and Zhang, 2026). Other work highlights AI-related capabilities and business model innovation (Ghosh, 2025; Gama & Magistretti, 2025). However, these streams rarely connect leadership practices with everyday human–GenAI collaboration in innovation work.

Innovation leadership research shows that technology does not create value on its own. Value depends on how leaders mobilize people, coordinate collaboration, allocate attention, and stabilize routines (Jensen et al., 2023). GenAI should therefore be seen as a socio-technical phenomenon whose value depends on organizational embedding and governance. This makes institutionalization a leadership challenge, not only a technical one (Bevilacqua et al., 2025).

Research on human–AI collaboration highlights the importance of trust, accountability, and governance in shaping collaboration processes and organizational outcomes (Zárate-Torres et al., 2025). Moreover, collaboration between humans and GenAI is essential to alleviate integration-related risks, which in turn affects innovation performance (Zhang, Zuo & Yang, 2025). Existing studies recognize issues but rarely explain how leadership and context jointly move GenAI from experimentation to routine. They outline the relevance of additional studies on contextual factors (Zhang, Zuo & Yang, 2025) and underscore a research gap regarding how firms can utilize the innovative potential of GenAI across the innovation process (Cillo & Rubera, 2025).

We conceptualize human–GenAI collaboration as a leadership-driven organizational capability that enables the transition from experimentation to institutionalized use in innovation to bridge the existing research gap. We will examine how leaders manage human-GenAI collaboration in strategic innovation. Using an exploratory qualitative research design and an inductive approach, the study investigates leadership practices, governance mechanisms, and contextual conditions. Based on a systematic analysis of interview data using a Gioia-inspired methodology (Gioia et al., 2013), the study identifies recurring patterns and relationships that inform the development of an empirically grounded framework for GenAI-enabled innovation capability.

Accordingly, the paper addresses the following research question: How do leaders facilitate and govern human–GenAI collaboration in strategic innovation to move GenAI use from experimentation to institutionalized adoption?

## 2 Theoretical Background

### *Generative AI in Innovation*

GenAI holds potential to augment human creativity and support innovation processes as a collaborative partner (Sedkaoui & Benaichouba, 2024). In innovation management literature, GenAI is perceived to leverage organizational innovation (Bahoo, Cucculelli & Qamar, 2023) as it helps for broadening search, generating options, accelerating prototyping, and supporting documentation and coordination, thereby affecting both exploratory and exploitative innovation work (Khan, Mehmood & Khan, 2025). It might change the way corporations manage innovation as it can create knowledge, suggest new ideas, and simulate outcomes which changes how firms take ideas from conception to market implementation (Bamel et al., 2024). Gama and Magistretti (2025) suggest that AI requires new organizational capabilities and enhances existing ones. While technology is significant, the way individuals and enterprises utilize GenAI will dictate its integration into organizational processes (Corvello, 2024). GenAI does not play one fixed role in innovation. Grange et al. (2025) show that GenAI contributes to idea generation but also to activities such as problem framing, data synthesis, prioritization, and prototyping. Most research is in early stages and rather descriptive. It provides limited attention to how GenAI use evolves over time within innovation processes.

### *Leadership in AI Contexts*

Leadership in AI contexts has the task to enable, frame, translate, and govern technology use. Bouschery et al. (2023) suggest that innovation work benefits from hybrid intelligence when AI capabilities expand and humans and AI collaborate to search broader problem and solution spaces. Other scholars emphasize that organizations must support human–AI collaboration by experimentation, the development of AI-related capabilities, and clarity on responsible and accountable use of AI (Raisch & Krakowski, 2021). Leadership also involves clear boundary, orchestration, and sensemaking across distributed actors and knowledge domains. Empirical evidence from GenAI-supported innovation processes shows that facilitators play a crucial role in human–AI collaboration. They define roles, manage visibility of AI contributions, and adjust how the technology is used to achieve team engagement and ownership (Grange et al., 2025). Research on leadership in GenAI contexts is still limited. Much of it is conceptual or normative, and relatively little work examines how leadership operates in specific organizational processes such as innovation. As a result, there is still limited understanding of how leaders practically shape human–GenAI collaboration and how their role changes as organizations move from experimentation to routine use.

### *Human–AI Collaboration*

Research on human–AI collaboration underscores that human and machine capabilities are complementary. Humans contribute contextual judgment and the ability to handle ambiguity and AI contributes pattern recognition, search, and speed, creating value when tasks are divided appropriately (Jarrahi, 2018). Bouschery et al. (2024) find that hybrid

human–AI collaboration increases the number and creativity of ideas compared to human-only groups. Grange et al. (2025) find that effective collaboration relies on a clear division of labor, where humans provide contextual input, validate outputs, and make final decisions, while GenAI supports tasks such as summarizing, categorizing, and generating preliminary solution concepts. The authors further show that unclear role boundaries or excessive reliance on AI-generated outputs can lead to resistance among team members, highlighting the importance of maintaining human control in critical decision phases. A key issue is trust and reliance, as effective collaboration depends on users' ability to critically evaluate when to trust AI outputs and when to question them. This is especially relevant for generative AI, whose outputs can be persuasive yet unreliable, making verification essential (Dwivedi et al., 2023). Most existing research focuses on individual or task-based studies. This approach offers a limited, process-oriented view of how collaboration develops over time, how teams using AI create shared routines, and how leadership affects teamwork in organizational innovation.

### *Innovation Process Perspective*

Innovation process research conceptualizes innovation as an iterative and non-linear process that involves ideation, development, and implementation (Crossan & Apaydin, 2010). Bilgram and Laarmann (2023) show that GenAI supports exploration and ideation and introduces new prototyping capabilities. Grange et al. (2025) demonstrate that GenAI's role varies across phases, supporting divergence through idea generation and exploration, while becoming valuable in convergence phases by structuring information, identifying patterns, and helping teams synthesize and prioritize solutions. A process lens helps explain not only whether GenAI is used, but how its role changes over time. Innovation process research has begun to incorporate GenAI as a process-shaping technology. It remains unclear how organizations move from experimentation to institutionalized use, and how leadership supports GenAI-enabled practices across phases.

## **3 Methodology**

### *Research design*

This study adopts an exploratory qualitative research approach. As the empirical understanding of leadership practices in human–GenAI collaboration is limited, this design is appropriate to capture insights into emerging organizational phenomena and allows for inductive theory development.

The study follows established research practices which include systematic coding, comparison across interviews, and transparent analysis documentation. The insights form the basis for the development of a conceptual framework.

### *Data collection*

The data comes from semi-structured interviews with purposively sampled innovation leaders from different organizational contexts with experience in GenAI use in innovation. Data collection started in March 2026 and targets 50 interviews. So far, 25 interviews have been conducted.

### *Data analysis*

The data analysis will apply an inductive coding approach following the Gioia methodology (Gioia et al., 2013). Transcripts will be systematically coded to identify first-order concepts reflecting participants' perspectives. These concepts will be iteratively compared and grouped into second-order themes that capture emerging patterns across interviews. Those will be aggregated into higher-level dimensions, forming the basis of the conceptual framework.

## **4 Preliminary Findings**

### *GenAI use in innovation activities*

Scientific literature often conceptualizes innovation in stages from idea generation through development to implementation and diffusion (Cooper, 1990). Initial observations offer perspectives on the application of GenAI throughout these phases. Interviewees describe multiple use cases that emphasize the differentiated function of GenAI across the stages of the innovation process.

GenAI facilitates exploratory endeavors, encompassing research, idea generation, and the organization of information. This enhances the velocity and scope of knowledge acquisition, thereby streamlining preliminary concept creation. GenAI is also applied in later stages, specifically in development and implementation activities. This includes prototyping, process automation, and incorporation of AI-driven functionalities into products and services. The findings indicate that GenAI is frequently used experimentally. Organizations develop proof-of-concepts and test potential applications in small-scale settings before broader implementation.

### *Governance mechanisms*

The findings provide insights into how organizations structure and govern the use of GenAI in innovation activities. The governance mechanisms seem to be insufficient and at a development stage. In many cases, there are no clearly defined rules or structures to guide GenAI use.

The implementation of GenAI is frequently structured in a decentralized manner, wherein individual employees or teams are responsible. Output validation relies on personal expertise and professional discernment, as opposed to adhering to established protocols.

This fosters adaptability and innovation but simultaneously engenders disparities in GenAI application throughout the organization.

Regulated environments often use more formal governance structures. These include approval processes, compliance requirements, and integration into organizational structures. However, these mechanisms are usually limited to specific situations and are not yet widely used.

The findings suggest that a GenAI-innovation governance requires a balance between flexibility and control. It becomes clear that organizations are still developing the necessary structures to manage risks and ensure consistent use.

### *Drivers and barriers*

Interviews offer valuable perspectives on what influences the application of GenAI in innovation. Drivers are e.g. the availability of the right technology and data and the ability to use GenAI. It is crucial to have skilled staff that is willing to try new things. Many workers research and use GenAI on their own in regular professional tasks. Therefore, bottom-up initiatives are very important. Organizational support facilitates adoption. Time and resources for experimentation, dedicated innovation environments, and internal successes are crucial elements. These facilitate the integration of GenAI into innovation initiatives, thereby fostering its incremental development.

Several barriers can be derived from existing interview data. These include insufficient strategic direction, inadequate financial resources, and weaknesses in organizational capabilities. Other barriers relate to data-related constraints, regulatory stipulations, and apprehensions regarding the reliability and credibility of AI-generated outputs.

This highlights that successfully using GenAI depends on a combination of organizational, technical, and cultural factors which determine how and where GenAI is applied in innovation.

### *Leadership practices*

The data provides findings on leaders' role in human–GenAI collaboration. It surfaces that leadership approaches shift from direct control, and leaders increasingly contribute to the facilitation and direction of GenAI utilization. Leaders play a crucial role by establishing environments that encourage employees to explore and use GenAI. Leaders define strategic direction and relevance of GenAI within the organization. This includes how the role of GenAI is framed in innovation activities and how it is linked to broader organizational objectives. Leaders foster experimentation through initiatives (pilot programs and proof-of-concept projects) and provide necessary resources and tools.

Leaders connect new technologies with business needs. They help turn GenAI's potential into real-world applications and encourage teamwork across the organization. However, leadership styles vary from one organization to another. Sometimes, a lack of clear direction or a long-term vision can slow the widespread use of GenAI.

### *Contribution*

This study seeks to contribute to innovation management research by developing a framework that integrates leadership practices, GenAI utilization, and innovation processes. While previous studies examined these elements separately, this research aims to clarify the impact of leadership on human–GenAI collaboration across different innovation stages and specific organizational contexts. The suggested framework is expected to promote a more nuanced understanding of GenAI, not simply as a technological tool, but as a dynamic capability shaped by leadership, governance models, and the wider organizational setting.

### *Practical implications*

We aim to provide practical advice for leaders and organizations that consider the use or redesign of GenAI in innovation processes. We will create a framework to help decision-makers understand benefits of GenAI in different innovation stages. It will facilitate the systematic structuring of its implementation.

## **5 Areas for feedback and development**

As data is preliminary and the study is not finalized, we welcome feedback on the conceptual framing and positioning of the research. We seek input on how to further strengthen the integration of leadership, GenAI, and innovation process perspectives, and whether additional theoretical lenses could support the development of the framework.

In addition, we appreciate feedback on the ongoing empirical analysis and the emerging framework. This includes clarity and distinctiveness of the identified dimensions (GenAI use, governance mechanisms, drivers and barriers, and leadership practices), as well as the extent to which the relationships between these elements are sufficiently specified. Finally, we welcome suggestions on how to further develop the framework to better capture the transition from experimentation to more institutionalized forms of GenAI use in innovation activities.

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