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Translating GenAI Employee Innovation into Strategy: Middle Managers in SMEs

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Abstract: The integration of Generative AI into organizational workflows has fundamentally shifted the internal economy of idea generation, funneling a higher density of sophisticated proposals toward senior leadership. However, the current literature on employee-driven innovation hasn't fully captured how these dynamics work in practice — particularly in small and medium-sized businesses. In these firms strict regulations play a huge role in shaping the innovation process, yet we haven't explored how GenAI fits into that specific struggle. This study uses an insider's perspective to look at a six-month GenAI hackathon at a regulated Swiss firm. Drawing on participant observation, organisational artefacts, a middle manager survey and semi-structured interviews, it documents middle management activity across three phases: pre-hackathon boundary architecture, real-time regulatory navigation and staged legitimisation of outputs. The findings extend Høyrup's (2012) EDI framework and Floyd and Wooldridge's (1992) middle management typology by proposing a three-phase translation model and identifying regulatory brokering as a previously untheorised middle management role in regulated SME contexts.

Keywords: Generative AI; middle management; employee-driven innovation; SME; regulated environments; hackathon; action research; governance; compliance; innovation strategy

1 Introduction

Generative AI is reshaping how employees generate, develop, and present ideas by compressing the effort required for prototyping, broadening participation in innovation and dramatically increasing the volume and the quality of outputs that reach managers (Doshi & Hauser, 2024; Brynjolfsson et al., 2023). While this poses challenges for organisations with mature innovation governance, it is particularly consequential for regulated SMEs, where formal innovation structures are minimal and compliance obligations are stringent.

In such contexts, the challenge of managing GenAI-enabled employee innovation rests on middle managers, who must translate strategic priorities into innovation conditions, navigate regulatory constraints as they come along and provide outputs for senior leadership often without dedicated governance structures. Yet existing research on EDI, middle management and GenAI adoption has mostly examined these areas in isolation.

Consequently, little is known about how middle managers enact this translation work across all phases of a GenAI-enabled innovation intervention — before, during, and after the event.

This paper addresses that gap through an insider action research study of a six-month GenAI-focused hackathon in a regulated Swiss SME. Using artefact analysis, participant observation, and ongoing interviews, it shows how middle managers enable and legitimise employee-driven GenAI innovation under tight regulatory constraints. The study proposes a preliminary three-phase model with practical relevance for regulated SMEs that lack formal governance structures.

2 Literature Review

Middle managers and strategy

Middle managers are positioned at the intersection of senior management and frontline operations giving them visibility into both strategic goals and operational practice (Floyd & Wooldridge, 1992). Rather than acting only as hierarchical intermediaries, they shape company strategy by issue selling, sensemaking, and championing ideas from below (Dutton et al., 2001; Rouleau, 2005). Floyd and Wooldridge (1992) describe these activities in four strategic roles — synthesising information, implementing strategy, championing alternatives and facilitating adaptability — highlighting how middle managers translate between organizational levels rather than simply carrying out top-down orders (Wooldridge et al., 2008).

Employee-driven innovation and SMEs

Employee-driven innovation (EDI) describes how ideas that emerge from employees' everyday problem-solving are evaluated, refined, and connected to organisational strategy (Høyrup, 2012; Ellström, 2010). Unlike top-down approaches, EDI positions employees as the primary source of variation, with ideas arising from local practices rather than strategic directives. Høyrup (2012) stresses that these ideas do not become strategic on their own — they need to be interpreted, legitimised, and linked to organisational goals. Kesting and Ulhøi (2010) point out that employees hold tacit, context-specific knowledge that only becomes useful when it is translated into decision-making. This translation work of surfacing, framing, and amplifying employee ideas is precisely where middle managers become central to the EDI process.

SMEs are structured around low formalisation and direct interaction rather than formal systems (Mintzberg, 1980). In this setting, middle-manager mediation becomes both more critical and less formally supported than in large organisations. Limited resources and weak coordination structures increases dependency on certain individuals who can connect local initiatives to broader organisational goals (Torrès & Julien, 2005; Harney et al., 2020). As a result, SME middle managers take on hybrid roles that blur strategy and operations, interpreting emerging issues and aligning initiatives through informal interaction (Wooldridge et al., 2008). This dependence on interaction-based mediation raises a critical question: what happens when the pace and volume of employee experimentation accelerate sharply?

GenAI and hackathons as innovation mechanisms

Introducing GenAI rapidly increases how much and how fast employees experiment, a dynamic that challenges the informal mediation structures SMEs rely on. GenAI systems generate new content by learning patterns from large datasets, acting as socio-technical tools that support creativity and problem-solving across domains (Feuerriegel et al., 2024). In innovation contexts, GenAI increases individual creativity while narrowing collective diversity as participants converge on similar generative outputs (Doshi & Hauser, 2024). This surge in ideas creates a governance challenge — organisations may struggle to evaluate ideas at the pace they are produced (Brynjolfsson et al., 2023). In SMEs and regulated settings, effective GenAI adoption depends not on technology access alone but on leadership commitment, governance clarity, and compliance alignment, conditions that do not emerge automatically (Schwaeke et al., 2025; Modgil et al., 2024).

Hackathons have evolved into corporate mechanisms for structured experimentation, serving as a functional equivalent to the formal R&D structures that SMEs typically lack (Pe-Than et al., 2019). When tied to organisational goals, they surface operational tensions and employee knowledge that rarely reach strategic decision-makers. Introducing GenAI into this environment amplifies both the creative potential and the governance burden: individuals generate more ideas, but groups tend to converge on similar outputs (Doshi & Hauser, 2024), increasing the burden on those responsible for evaluation and prioritisation. Hierarchical oversight at the selection stage enhances decision quality by reducing bias and anchoring judgement in strategic and operational knowledge (Keum & See, 2017). Middle managers are well positioned to play this role, yet one that has not been examined in regulated SMEs where compliance constraints shape which ideas can advance.

3 Research Gaps and Research Questions

Although research on middle managers, EDI and GenAI is quite extensive and established, there is little that examines what unfolds when the three streams come together, particularly in SMEs where structural informality and limited resources constrain governance.

The first gap concerns interpretation and selection. EDI research shows that middle managers typically filter ideas by judging their operational grounding, relevance, and feasibility (Høyrup, 2012). GenAI complicates this because it can make any idea look polished, even when the underlying thinking has not improved (Doshi & Hauser, 2024). When all prototypes appear polished and plausible, the traditional cues used by middle managers lose their discriminatory value (Ren & Guo, 2011), raising the risk that evaluation processes privilege form over substance. How SME middle managers adapt their interpretive and selection practices under these conditions remains empirically unexplored.

The second gap concerns the timing of middle-management involvement. Current EDI frameworks position the middle manager's translation role primarily at the moment of idea generation — that is, during the innovation event. The pre-event work of creating conditions for innovation and the post-event work of legitimising and routing outputs toward strategic relevance are largely absent from current frameworks. In a regulated SME where compliance must be managed across all phases, this missing temporal scope becomes especially important.

The third gap concerns regulatory constraint as an active shaping force rather than a background condition. In regulated sectors such as trust service provision, compliance is a

central criterion that determines which ideas can advance. How this shapes middle managers' interpretive and selection roles, and how they balance enabling employee creativity with maintaining regulatory boundaries, remains unexplored.

Taken together, these gaps raise a central empirical question: how does the middle manager's role unfold in a GenAI-enabled innovation event when traditional evaluation cues are weakened, organisational scale is small and regulatory constraints are fixed?

Primary Research Question: How does introducing GenAI into a structured innovation event reshape the middle manager's interpretive and selection roles in employee-driven innovation within a regulated SME?

SQ1: How do middle managers translate strategic priorities into challenge statements that prompt genuine employee contributions rather than polished GenAI output?

SQ2: How do middle managers evaluate and prioritise GenAI-assisted prototypes when traditional surface signals are no longer a reliable indicator of underlying idea value?

SQ3: How does operating in a regulated environment shape the boundaries within which employee-driven innovation can emerge, and what role does the middle manager play in navigating them?

4 Methodology

The study is grounded in an interpretivist and constructivist epistemology. Rather than trying to quantify middle management through survey and experiments, the idea is to understand how managers form judgements, justify decisions and mediate innovation in a regulated environment — a phenomenon best understood through qualitative approaches.

The research design follows insider action research (AR) using Coghlan and Brannick's (2005) framework for conducting research from within one's own organisation. This approach is appropriate because the researcher holds the dual role of Head of Software Development and researcher simultaneously, a position Coghlan and Brannick (2005) theorise as central to insider AR. Rather than treating this as a source of bias, the study uses it to access informal managerial practices and organisational decision-making that would be inaccessible to an external researcher. The research proceeded through three cycles corresponding to the action-research stages of planning, action, and evaluation: the pre-hackathon phase, the hackathon intervention, and the post-hackathon legitimisation phase.

This research takes place in a Swiss SME which is a trust service provider (TSP) under eIDAS 2.0 and ZertES. This context is theoretically appropriate because the regulatory environment creates exactly the conditions central to the study: named individual accountability, compliance-driven decision-making, and constrained resources. These kinds of regulated SMEs are largely missing from existing work on middle managers and GenAI adoption.

Tables 1 and 2 summarise the research timeline and the data collected across each phase.

Table 1 Research timeline across study phases

Phase	May 25	Jun 25	Jul 25	Aug 25	Sep 25	Oct 25	Nov 25	Dec 2

Pre-hackathon: Boundary architecture	●	●						
Hackathon: Real-time regulatory navigation			●	●	●	●		
Post-hackathon: Staged legitimisation							●	●

Table 2 Research phases, activities and data sources

Phase	Key activities	Data sources
Pre-hackathon: Boundary architecture	Governance discussions with leadership, legal, compliance and OpCo. Approval process defined. Presentation to Technical Board. Team formation and use case definition and approval.	Semi-structured interviews; presentation decks; governance and approval documents; field notes
Hackathon: Real-time regulatory navigation	Bi-weekly Technical Board meetings. Extended 1-1 sessions with teams. Mid-hackathon compliance intervention and use case redirection. Prototype development across five cross-functional teams.	Participant observation notes; meeting minutes and summaries; compliance correspondence; prototype screenshots and design documents; middle manager survey
Post-hackathon: Staged legitimisation	Three sequential demonstration rounds to team, technical organisation, OpCo and Management Board. Selection of two projects for further development. Cross-team reflection and retrospective sessions.	Recorded and transcribed demos; evaluation and assessment documents; structured interviews with hackathon participants, middle managers and Management Board

5 Preliminary Findings

Data collection is partly complete. Hackathon artefacts, observation notes, and final prototype demonstration materials have been collected. Semi-structured interviews are currently underway and would be complete by 30th April 2026. The current findings presented here are based on the artefacts and the observation data collected to date, with interview results to add further depth.

Even before any of the ideas were generated, substantial middle management activity was required to set the conditions for an EDI environment. This involved getting approvals from the management and the operating committee, working with the compliance and the legal teams to set boundaries and setting up the format for this event. These activities determined the scope of employee innovation and represented a form of pre-translation that is rarely noted in EDI literature. A survey of 8 middle managers revealed that most of them were only partly prepared to guide GenAI experimentation, with legal and compliance uncertainty being the main bottleneck, highlighting why this boundary setting was important.

Middle management involvement was continuous throughout the hackathon and involved taking some crucial decisions in shaping the hackathon. For example, one team had to change their topic mid-hackathon because of compliance reasons, showing how regulatory constraints, channelled through managers, directly shaped EDI.

Across three rounds of demonstrations to various stakeholders with progressively more senior audiences, five prototypes were demoed and feedback was collected. Two of those were chosen, although one of them was altered with renewed boundary conditions. The selection was driven by strategic fit, regulatory feasibility and value fit — and not just on technical merit. This extends Floyd and Wooldridge's (1992) typology of middle-management roles by introducing a regulatory dimension absent from existing frameworks.

6 Contribution

The first contribution relates to EDI theory. This study extends Høyrup's (2010) EDI framework and Kesting and Ulhøi's (2010) idea of employee innovation by showing that there is more to middle management translation in this process — they are involved before, during and after the GenAI-enabled intervention. Current frameworks emphasise how employees are the origin of innovation and how middle management is an enabler at the ideation stage. The boundary setting before the hackathon and the legitimisation afterwards show practices missing from the existing literature, indicating that innovation in a regulated SME starts earlier and finishes later than what current models acknowledge.

The second theoretical contribution is extending Floyd and Wooldridge's (1992, 2000) framework of middle-management roles by adding regulatory brokering as an additional function in regulated SME environments. Current frameworks focus on championing, synthesising, facilitating, and implementing but have missed compliance and regulatory feasibility, which directly shape innovation as shown in this study. As the adoption of GenAI in regulated industries advances, this role becomes critical to how organisational decision-making unfolds.

As a practical value, the study offers regulated SMEs that have not yet established a GenAI governance setup a three-phase middle management model focussing on boundary setting, navigating compliance and regulation in real time, and legitimising ideas through staged reviews. This serves as a transferable framework for supporting employee-driven GenAI innovation in compliance-bound environments. Since this model was developed in the context of a Swiss and European trust service provider, these mechanisms are valid for other organisations operating in similar environments.

7 Areas for Feedback and Development

The following are areas where input and feedback would help in completing the paper.

- Theoretical positioning of pre- and post-hackathon phases: input is welcome on whether the observation of middle management involvement in pre- and post-hackathon phases should be framed as an extension of current EDI frameworks situated within the middle management literature, or whether this warrants a new conceptual model.

- Regulatory brokering: the study proposes regulatory brokering as an extension of Floyd and Wooldridge's (1992, 2000) typology. Should this be considered a context-

specific extension applicable only to regulated environments, or an omission in existing middle management frameworks?

- Transferability: the study is conducted in a single Swiss SME which is a TSP. Input is requested on which factors — regulatory intensity, organisational size or technological maturity — are most important when considering transferability of the three-phase model to other SMEs.

- Role of GenAI: input is welcome on whether the middle management dynamics observed in this study are specific to GenAI's complexity and regulatory demands, or whether these patterns would be similar in any technology-driven EDI initiative.

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