Optimizing Enterprise Digital Platform Adoption Through Innovation Management Practices: Development and Evaluation of the InnoAdopt Application

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ABSTRACT

Enterprise digital platforms have become essential organizational infrastructures, yet many firms fail to maximize platform capabilities due to weak alignment with internal innovation routines. This study addresses this gap by developing and evaluating InnoAdopt, a web-based decision support and learning application designed to operationalize innovation management practices during enterprise digital platform adoption. Utilizing a Research and Development (R&D) design structured around the ADDIE framework, data were collected through semi-structured interviews, focus group discussions, and expert evaluations involving 24 organizational stakeholders and system experts. The development phase resulted in an integrated platform featuring dynamic maturity diagnostic assessments, workflow modules, structured case repositories, and strategic implementation guidelines. Evaluation findings demonstrated high content validity from information systems experts (91.2%) and strong user acceptability (88.5%), confirming that structured tools significantly diminish implementation ambiguity and cross-unit coordination barriers. The study concludes that embedding systematic innovation governance—such as pilot testing, cross-functional routines, and real-time monitoring—into digital workflows directly drives successful platform integration. Practical implications highlight that enterprise digital platform deployment must be managed as an ongoing organizational innovation process rather than a standalone technical installation.

I. INTRODUCTION

Enterprise digital platforms are increasingly central to how firms coordinate work, integrate data, and accelerate innovation in hyper-competitive market environments (Angelopoulos et al., 2023; Marzi et al., 2023). However, effective implementation depends heavily on whether structured innovation management practices are embedded within organizational routines to guide adoption and drive long-term strategic value (Endres et al., 2021; Pesch et al., 2021). In practice, many organizations encounter severe friction when aligning managerial support, operational routines, and digital capabilities with platform-based architectures, particularly when integration requires systemic alterations to decision-making structures and workflow governance (Uršič & Čater, 2025).

Understanding the interplay between innovation management practices and digital platform adoption is therefore a critical priority for managerial research (Gama & Magistretti, 2023; Zhang et al., 2025). Empirical evidence highlights that digital transformation initiatives frequently fail to deliver expected outcomes when firms encounter internal resistance, underdeveloped implementation capabilities, or misalignments between technical infrastructure and operational readiness (Kwangsawad & Jattamart, 2022; Narvaiza et al., 2023). Furthermore, overreliance on external technology vendors or generic consulting services often fails to secure sustainable adoption, underscoring that external enabling mechanisms cannot substitute for robust internal innovation capabilities (Endres et al., 2021; Loo et al., 2023).

Consequently, enterprise digital platforms risk becoming underutilized investments if innovation management is not systematically embedded into internal governance structures and operational capabilities (Pesch et al., 2021). Innovation management directly influences digital innovation performance by orchestrating factor inputs such as organizational knowledge, cross-functional routines, and dynamic capabilities (Maryanti et al., 2026; Uršič & Čater, 2025). Dedicated software functionality supporting idea management, process digitization, and strategic alignment has been shown to enhance technology adoption rates across diverse industrial settings (Endres et al., 2021; Gong et al., 2022).

Despite these insights, existing literature remains fragmented. Prior research predominantly investigates digital transformation, enterprise architecture, or software adoption as isolated streams, rather than clarifying how innovation management practices operate as a cohesive managerial mechanism governing enterprise digital platform adoption (Liu et al., 2025; Marzi et al., 2023). Moreover, scholarly work often focuses heavily on technical functionalities or macro-level transformation outcomes, giving limited attention to the micro-level managerial processes bridging innovation intent and platform adoption success (Angelopoulos et al., 2023; Narvaiza et al., 2023).

To address these gaps, this study introduces the InnoAdopt application, positioning innovation management practices as the foundational theoretical and practical lens for enterprise digital platform adoption. Unlike conventional software management tools that focus strictly on task tracking or basic idea generation, InnoAdopt integrates dynamic maturity diagnostic assessments, structured adoption routines, interactive feedback mechanisms, and contextual guidance within a single system. The primary objective of this research is to analyze how structured innovation management practices influence digital platform adoption and to evaluate the feasibility, usability, and strategic utility of the InnoAdopt application in organizational settings.

II. METHODOLOGY

This study adopted a Research and Development (R&D) methodology to design, prototype, and evaluate the InnoAdopt application (Wan Ali & Wan Yahaya, 2023). The R&D process was guided by the five-stage ADDIE framework (Analysis, Design, Development, Implementation, and Evaluation), which provides a rigorous model for instructional and technological system creation (Alqarni et al., 2023). A qualitative case study design was embedded within the R&D process to capture deep contextual insights into organizational innovation practices and user interaction behaviors (Benitez et al., 2016; Vial, 2019).

The target population comprised enterprise managers, information technology specialists, and innovation leads involved in organizational platform implementation. A purposive sample of N = 24 key informants was selected across mid-sized and large enterprises. The informant sample included 8 IT/Enterprise System Managers, 8 Innovation Officers, and 8 Cross-Functional Operational Unit Leads. Inclusion criteria required participants to have at least three years of professional experience in managing or operating enterprise-wide digital systems (e.g., ERP, CRM, or collaborative enterprise cloud systems).

Data collection involved semi-structured individual interviews, review of internal adoption documentation, five focus group discussion (FGD) sessions, and systematic user evaluations. System development was carried out using a modern web software stack (PHP/Laravel framework, MySQL database backend, and a responsive HTML5/Tailwind CSS frontend architecture).

Evaluation was conducted in two formal phases: (1) expert validation by a panel of 3 Senior Information Systems and Educational Technology Experts to review content accuracy, interface design, and architectural integrity; and (2) user usability testing with the 24 target informants using standard usability metrics and functional feedback protocols. Qualitative data were analyzed using a 5-step inductive thematic analysis approach: complete audio transcription, preliminary open coding, axial clustering of thematic categories, cross-case matrix synthesis, and participant member-checking to ensure analytical trustworthiness (Thomas, 2006).

Figure 1 illustrates the iterative development workflow following the ADDIE paradigm, detailing the transition from requirements analysis through prototyping to final usability evaluation

III. RESULTS AND DISCUSSION

The R&D process produced the InnoAdopt application, a web-based diagnostic, learning, and operational tool designed to support innovation management practices during enterprise digital platform adoption. Technical validation by the expert panel yielded a high average content and system architecture validity index of 91.2%, confirming the structural integrity and theoretical alignment of the system.

Prior to presenting the system interfaces, qualitative findings were synthesized across the participant groups. The sample of N = 24 informants highlighted distinct operational bottlenecks during platform transition phases. Table 1 outlines the summary of objective empirical findings categorized by data source.

As detailed in Table 1, empirical findings emphasized that technological tools alone cannot solve adoption barriers without structured governance routines. Following expert feedback, usability testing with the 24 target users yielded an overall usability

acceptance score of 88.5%, indicating that the platform effectively bridges theoretical innovation concepts and daily operational workflows.

Figure 2 presents the InnoAdopt Home Page, which provides users with immediate context regarding platform functions, strategic adoption objectives, and navigation modules.

Figure 3 illustrates the About Innovation Management module. This section provides foundational knowledge regarding structured innovation cycles—from idea generation and screening to institutionalization—ensuring that operational teams share a common conceptual framework (Uršič & Čater, 2025).

Figure 4 details the Enterprise Digital Platforms Page, highlighting core technologies (ERP, CRM, collaborative cloud platforms) alongside common operational friction points, such as legacy integration barriers and cross-departmental user resistance (Liu et al., 2025; Marzi et al., 2023).

Figure 5 displays the Innovation Management Practices Page. This section outlines critical adoption mechanisms, including structured pilot testing, inter-departmental co-design workshops, continuous training programs, and data-driven feedback loops (Pesch et al., 2021).

Figure 6 presents the Platform Adoption Maturity Assessment Page, an interactive diagnostic tool allowing managers to evaluate organizational readiness across key indicators and obtain actionable improvement scores.

Figure 7 demonstrates the Case Studies & Examples Page, providing real-world contextual benchmark solutions that assist teams in contextualizing abstract principles into practical implementation steps (Endres et al., 2021).

The visual evidence and evaluation scores confirm that InnoAdopt operates effectively as both an educational platform and a real-time diagnostic mechanism. By consolidating maturity diagnostics, procedural workflows, and feedback tools into a cohesive interface, the system directly reduces implementation uncertainty and enhances cross-functional coordination.

Table 1. Summary of empirical findings categorized by data source

Data Source	Informant Group (N = 24)	Core Empirical Findings	Design Translation in InnoAdopt
Interviews	8 IT System Managers	Lack of standardized workflows linking technical deployment with user feedback.	Integrated workflow module and technical feedback channels.
Observations	8 Operational Leads	Users experience fatigue when navigating fragmented, overly complex enterprise portals.	Designed a lightweight, intuitive single-dashboard UI (88.5% usability).
Document Analysis	Internal Policy Records	Prior innovation guidelines were static PDF files with low user engagement and tracking.	Built dynamic online maturity assessment forms with real-time scoring.

Focus Group Discussions	8 Innovation Officers	Need for benchmark case studies and systematic readiness metrics prior to rollout.	Added contextual case study repository and dynamic diagnostic tools.

IV. CONCLUSIONS

This study concludes that innovation management practices serve as a pivotal organizational enabler for the successful adoption of enterprise digital platforms. By embedding structured managerial routines—such as dynamic maturity assessments, cross-functional collaboration, pilot testing, and real-time feedback mechanisms—organizations can effectively bridge the gap between technical platform installation and true operational value realization. The developed InnoAdopt application demonstrates that digital adoption is significantly enhanced when conceptual guidance, platform capabilities, diagnostic tools, and case benchmarks are integrated into a single user-friendly digital environment.

The theoretical contribution of this research lies in demonstrating how innovation management practices function as internal capabilities that translate digital technology investments into organizational performance. Practically, the InnoAdopt application offers enterprise leaders a validated, lightweight tool to diagnose adoption readiness and guide change management processes.

This study has limitations. The initial evaluation was conducted with a target sample of 24 enterprise informants within a bounded qualitative development context. Future research should evaluate the long-term impact of InnoAdopt across diverse industrial sectors using longitudinal quantitative designs, assessing its effects on specific organizational metrics such as employee agility, process innovation rate, and return on digital platform investment.

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