Proceedings of ICEMGD 2025 Symposium: Resilient Business Strategies in Global Markets
DOI: 10.54254/2754-1169/2025.CAU26595

A Study on the Impact of Information Management Cloud Platforms on Enterprise Management Innovation: A SWOT Analysis

Ke He

Yunnan University of Finance and Economics, Kunming, China
2402622669@qq.com

Abstract. In today's highly competitive market environment, enterprises must innovate their project management approaches to enhance core competitiveness. This paper examines the strengths, weaknesses, opportunities, and threats associated with the application of information management cloud platforms in enterprise management innovation. Through a comprehensive analysis of these factors, the paper also explores strategic directions for future development. The study finds that the strengths of information management cloud platforms lie in enabling data-driven decision-making and automating management processes. However, their weaknesses include risks related to data security and privacy, high hidden costs, and uncertain return on investment (ROI). At the same time, these platforms are presented with opportunities stemming from rising customer expectations for digitalization and China's leadership in digital infrastructure. Nevertheless, they also face threats such as conflicts in data sovereignty legislation and the existence of a significant digital divide.

Keywords: Information Management Cloud Platform, Enterprise Management Innovation, SWOT Analysis, China

1. Introduction

With the rapid development of modern society, competition among enterprises is steadily intensifying. To enhance their core competitiveness and ensure operational stability and security, enterprises must place greater emphasis on effective project management. In other words, in the context of today's evolving environment, it is essential for each enterprise to actively innovate its project management approaches to better meet the demands of social and economic development.

Enterprise management informatization serves as a powerful tool to address the growing pressures of both domestic and international markets. It enables continuous improvement in core competitiveness and management efficiency. By leveraging information platforms, enterprises can access a broader range of market data, allowing them to strategically and scientifically achieve their goals through the application of modern information technologies. Therefore, the construction of enterprise information platforms has become a key component of project management and represents an inevitable trend for modern enterprises in responding to rapid market changes.

DOI: 10.54254/2754-1169/2025.CAU26595

In developing an information management cloud platform, the transition from traditional linear management to network-based management is facilitated through information technology tools. By streamlining and analyzing business processes and managing core data around three main operational lines, enterprises can achieve online processing, coordinated management of key business functions, and effective control over critical operational links. The cloud-based information management platform integrates cloud computing, data warehousing, big data analytics, and other technologies to enable business collaboration, unified data management, resource integration, data sharing, and the timely and accurate presentation of decision-making information for leadership analysis.

Therefore, this paper focuses on the development of enterprise management innovation under the background of cloud-based information platforms. It adopts the SWOT analysis method to conduct the research and offers relevant recommendations to support the further advancement of management innovation.

2. Literature review

The first category of literature relevant to this study focuses on enterprise development and innovation. Zhu Hongren [1] argues that although China has faced increasing internal difficulties and external pressures since 2024, many enterprises continue to forge ahead with innovation, achieving new development outcomes. Jiang Lingjing [2] explores strategies for innovation and development in enterprise management accounting in the era of big data. Feng Baoming [3] finds that during digital transformation, enterprises encounter challenges in financial management such as data security risks, talent shortages, and inadequate informatization. He recommends strengthening data protection, improving digital skills, and increasing investment in informatization to support development. Tao Li [4] holds that the era of big data promotes enterprise management innovation, but institutional, talent-related, and security challenges remain. Addressing these requires optimization of technology application, system improvement, and enhanced data protection.

The second category of literature pertains to the development of information platforms. Existing studies have developed a cloud-based laboratory safety information management system for universities [5]. Wang Qi and Ying Guorong [6] designed and implemented a cloud platform for canine epidemic prevention information management in Huangyan District, enabling mobile data collection (including offline functionality), cloud-based management, and real-time monitoring. This platform improved the efficiency and accuracy of epidemic prevention efforts. Qin Wen and Xing Yong [7] established the “China Good Grain and Oil” informatization cloud platform, enabling end-to-end supervision from production to sales via digital means, thereby enhancing quality management of grain and oil products. Tian Ji et al. [8] constructed an enterprise-level private cloud platform based on Docker technology, building a three-tier service architecture (IaaS, PaaS, SaaS) that integrates resource management and data centers to achieve full-process informatized production and operations, thus driving digital transformation. Feng Qiaohua [9] rapidly built a graduate information management platform based on “DingTalk–Jiandao Cloud” at low cost, effectively addressing shortcomings in vocational college employment management systems and the lag in informatization. Zhang Xudong [10] developed a cloud-based railway construction information management system that improved construction efficiency and quality by optimizing material dispatch and workflow management, thereby validating the value of cloud technology applications.

Based on the existing literature, this study may contribute in four major ways. First, in terms of research topic, while there has been extensive research on information management cloud platforms,

DOI: 10.54254/2754-1169/2025.CAU26595

there is a notable gap in studies specifically addressing the platform's strengths, weaknesses, opportunities, and threats in the context of enterprise management innovation. Thus, this paper, from the perspective of SWOT analysis, fills an important void in current literature. Second, in terms of methodology, the study employs SWOT analysis to examine the platform's internal and external factors, while also considering the negative impact of the digital divide on enterprise management innovation. Third, in terms of data sources, the paper supplements its arguments with real and authoritative data that is both comprehensive and current, enhancing the accuracy, objectivity, and timeliness of its economic conclusions. Fourth, the study proposes targeted and personalized policy recommendations for the healthy development of information management cloud platforms, offering valuable Chinese cases, facts, and experiences that can serve as references for cloud platform development in other developing countries around the world.

3. SWOT analysis

SWOT analysis, also known as situation analysis, is a strategic framework initially proposed in the 1960s by renowned Harvard Business School professor Andrews. This method is typically used to assess an entity's Strengths, Weaknesses, Opportunities, and Threats, followed by a matrix-based arrangement to formulate corresponding development strategies and action plans.

3.1. Strengths

Enabling data-driven decision-making. In the process of enterprise management, the application of an information management cloud platform allows for the integration of real-time operational data—such as supply chain turnover rates and customer behavior trajectories. These can be visualized through dashboards to present objective indicators, thereby avoiding decision-making based on intuition or personal judgment by senior executives. This enables a shift toward evidence-based, data-driven decisions. Moreover, enterprises can employ machine learning models on the platform to forecast demand fluctuations using historical data, enhancing their ability to make predictive decisions. For example, Semitech APS integrates machine learning to automatically identify historical order patterns and predict future demand fluctuations, achieving an accuracy rate of 92% [11]. In summary, in the era of digital transformation, the core value of using an information management cloud platform lies in its ability to convert massive volumes of data into actionable business insights. Data-driven decision-making fundamentally reshapes enterprise decision logic—making it more precise, agile, efficient, secure, and predictable. This represents a core advantage for enterprises pursuing innovative management mechanisms.

Automating management processes. After implementing an information management cloud platform, enterprises can select modular functions according to their specific needs and gradually expand to cover the entire business chain. The integrated data management capabilities of such platforms help eliminate data silos by enabling cross-system and cross-departmental data integration and automated flow. These platforms can also connect to existing enterprise systems through Application Programming Interfaces (APIs) or middleware, ensuring real-time synchronization of sales orders, inventory data, and customer information. In addition, the platform enables data standardization and cleansing. Data formats from different systems can be automatically transformed through rule engines, eliminating the need for manual verification. Non-compliant data—such as an incorrect number of digits in an ID number—can be flagged and assigned to the responsible personnel. These technical combinations allow a shift from "human-driven processes" to "data-driven processes," advancing automation in enterprise management. This enhances efficiency,

DOI: 10.54254/2754-1169/2025.CAU26595

accuracy, and agility across the board and represents a significant advantage in promoting management innovation through the use of information management cloud platforms.

3.2. Weaknesses

Risks to data security and privacy. Generative AI tools such as GPT and Copilot have introduced serious data security and privacy concerns during employee use. Specifically, if log recording is not disabled, sensitive information in prompts may be accessed by AI service providers or malicious actors. In 2023, Samsung Semiconductor experienced a data leak incident when engineers used ChatGPT to optimize chip design code and input proprietary technical details. This information was stored by OpenAI and may have been used in model training. Consequently, Samsung urgently banned the use of generative AI among employees and implemented localized AI solutions. Therefore, while the application of information management cloud platforms can improve management efficiency, a lack of secure data flow controls could expose enterprises to systemic risks such as trade secret violations, regulatory penalties, and loss of competitive advantage. Thus, data security and privacy concerns are a critical developmental disadvantage when using cloud platforms for enterprise management innovation.

High hidden costs and uncertain Return on Investment (ROI). The hidden costs and uncertain ROI of information management cloud platforms stem primarily from the complexity of technological and organizational transformation. For instance, existing enterprise systems such as Enterprise Resource Planning (ERP) or Customer Relationship Management (CRM) may not be fully compatible with cloud platforms. This requires data cleansing, transformation, or even restructuring—often incurring substantial costs in terms of labor, time, and third-party services. Moreover, the standardized functionalities of cloud platforms often require customization to meet the specific needs of the enterprise. These development costs are frequently underestimated, and ongoing expenses related to feature upgrades and module expansions can further inflate the total investment. Although cloud platforms reduce the burden of hardware maintenance, enterprises must continually allocate resources for performance optimization and security monitoring—such as managing API calls, expanding storage subscriptions, and preparing for service interruptions or data backup contingencies. These all represent hidden costs. In addition, the delayed effect of management innovation means that process optimization and improved decision-making brought by the platform may not yield measurable outcomes in the short term. Coupled with market uncertainties surrounding innovation adoption, assessing ROI becomes even more challenging. Furthermore, the competitive advantages provided by cloud platforms may be quickly replicated by competitors, leading to diminishing marginal benefits. In summary, high hidden costs and uncertain ROI can trap enterprises in a dilemma where substantial investments yield minimal returns. This transforms the cloud platform from an enabler into a burden, representing a key weakness and a major pain point in efforts to innovate enterprise management.

3.3. Opportunities

Rising customer expectations for digital services. With the rapid spread of digital technologies, consumer demand for convenient, efficient, and personalized services has grown significantly. According to Salesforce's 2023 Global State of the Connected Customer Report, 88% of customers expect companies to offer faster digital service channels. Research by Accenture further shows that 60% of consumers abandon transactions due to poor customer experience. Personalized services have also become a critical expectation. A McKinsey survey indicates that 71% of consumers expect

DOI: 10.54254/2754-1169/2025.CAU26595

brands to deliver customized experiences, and companies that fail to meet this demand risk losing customers. The continual upgrading of digital expectations among customers presents both challenges and substantial opportunities for enterprise management innovation and digital transformation. Data from authoritative institutions such as Statista and McKinsey clearly demonstrate that consumer demands for convenience, personalization, and instant responsiveness have become an irreversible trend. In this context, the value of information management cloud platforms becomes increasingly prominent. These platforms not only serve as the technological foundation for improving customer experience but also act as a core engine for transforming management models. Therefore, they represent a societal opportunity for enterprises to secure customer loyalty and even redefine industry standards amid the digital wave.

China's leading advancement in digital infrastructure. The Chinese government places high importance on the construction of digital infrastructure and has made significant progress in recent years. The current development of digital infrastructure in China includes: information and communication networks such as 5G; computing infrastructure such as data centers; and data-factor infrastructure. In terms of 5G deployment, as of 2023, China has built the world’s largest 5G network, with over 3 million base stations—accounting for more than 60% of the global total—and more than 700 million 5G users. Regarding data centers and computing infrastructure, China has established 8 national computing hub nodes and 10 national data center clusters. By 2023, the total number of data center racks exceeded 8 million, and the country's overall computing power ranked second globally. These achievements clearly demonstrate the favorable environment created by China’s leading digital infrastructure development. This provides technical feasibility, cost advantages, and policy dividends for the large-scale development of information management cloud platforms and offers a strong policy opportunity for their application in enterprise management innovation.

3.4. Threats

Conflicts in data sovereignty legislation. Different countries and regions have varying—and often conflicting—laws concerning data jurisdiction. These legal discrepancies pose challenges for cross-border data transfer, storage, and processing, especially in terms of data localization requirements, privacy protection standards, and law enforcement authority. Such conflicts can result in compliance dilemmas or even international disputes. Legislative conflicts over data sovereignty have evolved from legal issues into major obstacles for the global digital economy. More than 62 countries have implemented data localization regulations, doubling enterprise compliance costs over five years. The restriction of cross-border data flows has therefore become a policy threat that hampers the application of information management cloud platforms in enterprise management innovation.

Widening digital divide. The digital divide refers to inequality among different social groups, regions, or countries in terms of access to, use of, and benefits from information technology. It includes disparities in internet access, digital literacy, content accessibility, and willingness to use digital tools. In China, the digital divide is widening. As of June 2023, China’s overall internet penetration rate reached 76.4%, but rural areas lag behind at around 60%, meaning approximately 40% of the rural population remains offline. In terms of age, the internet penetration rate among those aged 60 and above is only 52.5%, significantly below the national average. Regionally, the digital economy accounts for more than 50% of GDP in cities like Beijing and Shenzhen, whereas in central and western provinces, the figure is around 25%, indicating a stark east-west divide. The effective application of information management cloud platforms relies on stable internet connectivity and a supportive digital environment. However, the presence of the digital divide in

DOI: 10.54254/2754-1169/2025.CAU26595

China limits platform penetration in rural areas, among older populations, and in the central and western regions. This creates technical threats for market expansion and poses serious challenges to enterprise management innovation.

4. Conclusion

This paper has outlined and analyzed the impact of information management cloud platforms on enterprise management innovation. The platforms offer notable strengths, such as enabling data-driven decision-making and automating management processes. However, they also pose weaknesses, including data security and privacy risks, high hidden costs, and uncertainty around return on investment (ROI). At the same time, enterprises face opportunities such as rising customer expectations for digital services and China's leading development in digital infrastructure. Yet, they are also exposed to threats like data sovereignty legislative conflicts and a significant digital divide.

The insights from this study yield four key implications: First, adopt a phased implementation strategy: Enterprises applying information management cloud platforms for management innovation should follow a progressive path of “data governance – tool selection – system integration”. This should be supported by employee training in data literacy and innovation incentives. Priority should be given to pilot scenarios with clearly measurable ROI, such as financial reconciliation. Second, strengthen risk control and cost optimization: Implement hybrid cloud architectures, zero-trust security frameworks, and cost-monitoring tools. Establish cross-department collaboration mechanisms and phased evaluation systems to achieve systematic governance, thereby ensuring risk is controllable, costs are optimized, and value is enhanced. Third, capitalize on evolving customer needs and infrastructure advantages: Enterprises should analyze trends in customer demand, develop modular cloud services, integrate with new digital infrastructure (e.g., 5G, IoT), and build a customer success management system. Leveraging China’s digital infrastructure advantage will help maximize the value of cloud platforms. Fourth, ensure compliance and promote inclusive development: Establish a compliance assessment framework for data sovereignty and a model for inclusive digital development. Launch modular cloud service packages and provide digital empowerment training. By following a three-stage path of “assessment – adaptation – empowerment”, enterprises can ensure compliant operations while promoting technological inclusiveness and enabling the sustainable development of cloud platforms.

References

[1] Zhu, H. R. (2025). Comprehensively improving management innovation to promote high-quality enterprise development: Speech at the 2025 National Enterprise Management Innovation Conference. Enterprise Management, (5), 6–8.
[2] Jiang, L. J. (2025). Advantages and innovation strategies of management accounting in the era of big data. Modern Enterprise, (4), 125–127.
[3] Feng, B. M. (2025). Research on innovative financial management models under digital transformation. Accounting for China’s Township Enterprises, (7), 184–186.
[4] Tao, L. (2025). Research on innovative paths of enterprise management models in the big data era. Modernization of Shopping Malls, (8), 116–118. https: //doi.org/10.14013/j.cnki.scxdh.2025.08.003
[5] Zhu, L. (2024). Research on campus laboratory safety information management system based on cloud platform. Software, 45(6), 160–162.
[6] Wang, Q., & Ying, G. R. (2022). Design and implementation of a canine epidemic prevention information management cloud platform. Zhejiang Journal of Animal Husbandry and Veterinary Medicine, 47(3), 33–35.
[7] Qin, W., & Xing, Y. (2021). Research on the regional management model and information platform construction of the “China Good Grain and Oil” initiative. Grain & Oil Food Science and Technology, 29(6), 254–258. https: //doi.org/10.16210/j.cnki.1007-7561.2021.06.025

DOI: 10.54254/2754-1169/2025.CAU26595

[8] Tian, J., Wang, D. P., Liu, X. N., Song, W. G., Feng, T. Y., Wu, B., & Zhou, Y. T. (2021). Development of an integrated private cloud information management platform for power generation enterprises based on Docker. Internet of Things Technologies, 11(5), 51–54. https: //doi.org/10.16667/j.issn.2095-1302.2021.05.015
[9] Feng, Q. H. (2021). Exploration and practice of building an employment information management platform for graduates based on “DingTalk” + “Jiandaoyun.” Wireless Internet Technology, 18(5), 23–24.
[10] Zhang, X. D. (2020). Application exploration of railway construction information management system based on cloud platform. Information & Communication, (7), 169–170.
[11] Qiye Shuzhi Dongcha. (2025). AI-Driven APS Transformation: Top 10 Vendors' Advantages and Selection. Digiwin Software Official Account. https: //baijiahao.baidu.com/s?id=1834689030929442090& wfr=spider& for=pc