

Digital Business Strategies and Organizational Performance in Higher Education: The Case of Jiangyang City Construction College

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Abstract

The objectives of this study were (1) to explore teachers' understanding and experiences of digital business strategies in higher education, (2) to examine the perceived influence of digital business strategies on organizational performance, and (3) to identify organizational factors shaping the adoption and effectiveness of digital business strategies at Jiangyang City Construction College. This study employed a qualitative case study research design. The population consisted of teachers working at Jiangyang City Construction College, and a purposive sampling technique was used to select 15 participants with direct experience in digital teaching, administrative, and management systems. Semi-structured interviews were used as the primary research tool for data collection. The data were analyzed using thematic analysis, combining inductive coding with deductive alignment to the research objectives and relevant literature. The study's results found that teachers primarily understood digital business strategies through practical engagement with digital platforms embedded in their daily work rather than through formal institutional strategies. Digital business strategies were perceived to positively influence organizational performance by enhancing teaching efficiency, streamlining administrative processes, improving coordination, and strengthening institutional competitiveness. However, the extent of these benefits varied due to system instability, uneven digital competencies, and workload pressures. Leadership support, training provision, and institutional culture were identified as critical organizational factors influencing the effective implementation of digital business strategies.

Keywords: Digital Business Strategies; Organizational Performance; Digital Transformation; Higher Education; Teachers' Perceptions

Introduction

In the digital economy, the accelerating integration of digital technologies has become a defining feature of organizational development in the contemporary knowledge economy, with higher education institutions increasingly adopting digital business strategies to respond to changing pedagogical, administrative, and competitive demands. Digital business strategies in higher education extend beyond the adoption of isolated technologies and encompass the systematic use of digital platforms, data-driven decision-making, and technology-enabled processes to enhance institutional performance, service quality, and organizational sustainability. Learning management systems, digital assessment tools, integrated administrative platforms, and online communication systems have become central to how colleges and universities deliver education and manage internal operations (Benavides et al., 2020; Rof et al., 2020; Williamson, 2021; Dhouchak & Kumar, 2022; Esteve-Mon et al., 2022; Pal'ová & Zoričáková, 2025; Wu, 2025). Higher education institutions have faced mounting pressures arising from student expectations for flexible and technology-enhanced learning, government policies promoting digitalization, and competition among institutions for reputation, enrollment, and resources. In response, many colleges have pursued digital transformation initiatives aimed at improving teaching effectiveness, streamlining

administrative processes, and strengthening coordination across organizational units. Digital business strategies are regarded as critical enablers of performance, influencing operational efficiency, institutional adaptability, and long-term competitiveness (Hashim et al., 2022; Fernández et al., 2023; George & Wooden, 2023; Sangwa et al., 2025).

There are various benefits associated with digital transformation in higher education, including improved access to learning resources, enhanced student engagement, greater transparency in administrative procedures, and more efficient information flows. Studies have highlighted challenges such as uneven digital competencies, resistance to change, and the risk of technology-driven reforms that are insufficiently aligned with institutional culture and professional practices. The effectiveness of digital business strategies is shaped not only by technological investment but also by how digital initiatives are interpreted, adopted, and enacted by academic staff within their daily work environments (Robertson & Lapina, 2022; Boychuk, 2024; Rivera-Gutiérrez et al., 2024; Carmo et al., 2025; Das & Sarkar, 2025; Nugroho et al., 2025). Teachers occupy a pivotal position in this process, as they serve simultaneously as users, implementers, and mediators of digital systems in teaching, assessment, and academic administration. Their perceptions and experiences play a crucial role in determining whether digital business strategies translate into meaningful performance improvements or remain fragmented technological interventions. Understanding teachers' perspectives is therefore vital for capturing the operational realities of digital transformation and for assessing its implications within institutions (Bygstad et al., 2022; Ventista & Brown, 2023; Rasdiana et al., 2024; Masaeed et al., 2025; Moradi, 2025; Sun & Yoon, 2025).

Within the Chinese higher education system, digitalization has been actively promoted through national strategies and institutional reforms, with particular emphasis on smart campuses, online education, and digital governance. Vocational and applied colleges have increasingly adopted digital systems to support practice-oriented teaching and complex administrative functions (Liu, 2025; Sziegat, 2025a; Sziegat, 2025b; Sziegat, 2025c; Zhang et al., 2025). However, the implementation of digital business strategies in such institutions often occurs incrementally and pragmatically, shaped by local conditions, resource availability, and institutional priorities. Examining these processes at the institutional level provides valuable insights into how digital strategies function in practice rather than in formal policy discourse alone. This study focuses on exploring how digital business strategies are understood, experienced, and enacted by teachers at Jiangyang City Construction College, and how these strategies influence organizational performance in a higher education context.

By adopting a qualitative interview-based approach, the study offers a detailed and context-sensitive account of teachers' lived experiences with digital systems, illuminating the interactions between technology, organizational processes, and human agency. The contributions of this study are threefold. First, it deepens understanding of digital business strategies in higher education by providing rich empirical insights into teachers' everyday engagement with digital systems. Second, it elucidates the relationship between digital business strategies and organizational performance from the perspective of frontline academic staff, highlighting both enabling and constraining factors. Third, by focusing on a regional vocational college in China, the study contributes contextually grounded evidence that can inform institutional leaders and policymakers in designing more coherent, inclusive, and practice-oriented digital transformation strategies in higher education.

Research Methodology

This study adopted a qualitative research strategy to explore teachers' perceptions and experiences of digital business strategies and their influence on organizational performance in higher education. A qualitative approach is appropriate for capturing in-depth meanings, interpretations, and contextual factors that are not easily quantified. The research is designed

as a case study, with Jiangyang City Construction College selected to enable a focused examination of digital business strategies within their real-life institutional context.

The study sample consists of 15 teachers, working at Jiangyang City Construction College, selected through purposive sampling. Participants were chosen based on their direct experience with digital systems used in teaching, administration, or institutional management. The sample includes teachers from different academic disciplines and varying levels of professional experience, ensuring a range of perspectives. The sample size was sufficient to achieve thematic saturation, as recurring patterns emerged during analysis.

Data were collected using semi-structured interviews. The interview guide was aligned with the research objectives and covered teachers' understanding of digital business strategies, experiences with digital systems, perceived impacts on organizational performance, and organizational factors affecting digital adoption. Interviews lasted approximately 45–60 minutes, were audio-recorded with consent, and transcribed verbatim. Field notes were used to capture contextual observations. Furthermore, ethical considerations were observed throughout the study. Participants were informed of the study's purpose, provided informed consent, and assured of confidentiality and anonymity. Respondents were identified using codes (R1–R15), and all data were securely stored.

Data analysis was conducted using thematic analysis. Transcripts were read repeatedly to ensure familiarity, followed by systematic coding and theme development. The analysis combined inductive theme emergence with deductive alignment to the research questions and relevant literature. This approach ensured analytical rigor and a clear connection between empirical findings and the study's objectives.

Result

The respondents comprised 15 teachers from Jiangyang City Construction College in China selected through purposive sampling to ensure direct experience with digital teaching, administrative, and management systems. They represented diverse academic disciplines and professional roles, ranging from classroom-focused teaching to combined academic and administrative responsibilities. Variation in teaching experience—from early-career to senior staff—enabled reflections on both continuity and change in digital practices over time. Although all respondents regularly used digital platforms, differences in digital confidence and proficiency were evident. Collectively, this heterogeneous yet relevant sample provided a robust empirical basis for examining teachers' perceptions of digital business strategies and their implications for organizational performance.

Teachers' Understanding and Experiences of Digital Business Strategies: Teachers primarily understood digital business strategies through hands-on engagement with digital systems embedded in their daily teaching and administrative routines, rather than through formal strategic frameworks. Digital strategies were commonly associated with learning management systems, online assessment tools, and digital reporting platforms, introduced incrementally over time. While respondents acknowledged improvements in efficiency and standardization, many noted limited communication regarding the overarching strategic intent behind these initiatives. As a result, teachers' understanding remained largely practice-oriented and fragmented, shaped by experiential learning rather than structured training or strategic dialogue. This reveals a disconnect between institutional-level digital planning and frontline implementation.

Influence of Digital Business Strategies on Organizational Performance: Teachers perceived digital business strategies as positively influencing organizational performance by enhancing teaching efficiency, reducing administrative burdens, improving interdepartmental coordination, and strengthening institutional competitiveness. Digital platforms facilitated more effective management of teaching materials, communication, and reporting processes.

However, performance gains were not uniform. System instability and disparities in digital competencies constrained benefits for some teachers, occasionally undermining efficiency. These findings suggest that while digital strategies contribute to improved organizational performance, their impact is contingent on reliable infrastructure and users' digital capabilities, highlighting the importance of complementary support mechanisms.

Organizational Factors Influencing Adoption and Effectiveness: The adoption and effectiveness of digital business strategies were strongly shaped by organizational factors, particularly leadership support, training provision, workload pressures, and institutional culture. Active leadership endorsement and regular training encouraged teacher engagement and reduced resistance, especially among less digitally confident staff. In contrast, heavy workloads and limited time for skill development hindered effective adoption. Respondents also described a gradual cultural shift toward greater acceptance of digital practices, indicating that digital transformation is an ongoing process. These findings emphasize that successful implementation depends not only on technology but also on sustained organizational commitment, supportive leadership, and continuous professional development.

Discussion and conclusions

This study explored teachers' perceptions and experiences of digital business strategies at Jiangyang City Construction College and their impact on organizational performance. The findings show that teachers mainly understand these strategies through daily use of digital platforms rather than through formal institutional policies, with digital initiatives perceived as incremental, practice-oriented tools integrated into teaching and administrative routines. Although improvements in efficiency, coordination, and communication were widely acknowledged, limited awareness of overarching strategic goals led to fragmented operational understanding. While digital business strategies were generally seen to enhance organizational performance and competitiveness, their benefits were uneven due to technical issues, system complexity, and differences in digital competence. The study highlights that positive performance outcomes depend on adequate infrastructure, effective training, leadership support, and sustained organizational commitment.

The findings align closely with existing literature on digital transformation in higher education, particularly regarding the practice-driven nature of digital strategy implementation. Similar to Benavides et al. (2020) and Fernández et al. (2023), this study shows that digital business strategies in higher education often materialize through the gradual introduction of platforms and systems rather than through clearly articulated strategic frameworks communicated to academic staff. Teachers' fragmented understanding reflects a gap between institutional-level planning and frontline implementation, echoing observations by Esteve-Mon et al. (2022) and Rivera-Gutiérrez et al. (2024), who emphasize the importance of strategic coherence and communication in digital initiatives.

Furthermore, the perceived positive impact of digital business strategies on organizational performance, particularly in terms of efficiency, coordination, and competitiveness, supports prior research highlighting the role of digitalization in enhancing institutional effectiveness (Hashim et al., 2022; Nugroho et al., 2025). Consistent with Sun and Yoon (2025), the findings suggest that performance improvements are mediated by teachers' digital self-efficacy and the fit between digital tools and work tasks. System instability and uneven digital skills, as reported by respondents, mirror challenges identified by Robertsons and Lapina (2022) and Das and Sarkar (2025), who caution that technological investment alone is insufficient to guarantee positive outcomes.

Organizational factors emerged as decisive in shaping digital adoption, reinforcing the argument that digital transformation is fundamentally a socio-organizational process. Leadership support and training provision were found to encourage engagement and reduce

resistance, corroborating studies by Liu (2025) and Rasdiana et al. (2024) that highlight the role of leadership and digital culture in sustaining transformation. The gradual cultural shift toward acceptance of digital practices observed in this study is consistent with Bygstad et al. (2022) and Carmo et al. (2025), who describe digital transformation as an ongoing and adaptive process rather than a one-time intervention

This study concludes that digital business strategies at Jiangyang City Construction College have contributed positively to organizational performance by improving efficiency, coordination, and institutional responsiveness. However, these benefits are neither automatic nor uniform. Teachers' experiences reveal that digital strategies are predominantly understood and enacted at the operational level, often disconnected from formal strategic intent. The effectiveness of digital business strategies depends not only on technological infrastructure but also on organizational support mechanisms, including leadership commitment, professional development, and workload management. By foregrounding teachers' perspectives, this study demonstrates that digital transformation in higher education is a complex, human-centered process shaped by daily practices, perceptions, and organizational context. Digital business strategies yield meaningful performance improvements only when they are aligned with institutional culture, communicated clearly, and supported through continuous capacity building.

Suggestion

The findings suggest that higher education institutions should place greater emphasis on clearly communicating the objectives, rationale, and expected outcomes of digital business strategies in order to enhance teachers' strategic awareness and reduce fragmentation between institutional goals and everyday practices. Continuous, practice-oriented professional development is also essential to address disparities in digital competence and to strengthen teachers' confidence and effectiveness in using digital systems. At the same time, institutional leaders should recognize the additional workload pressures associated with digital adoption and provide adequate time, resources, and support for skills development and system adaptation. Digital business strategies should be implemented as integrated organizational initiatives rather than isolated technological projects, ensuring alignment with pedagogical needs, administrative processes, and institutional culture to support long-term performance and sustainability. In addition, future research should extend this work through mixed-methods, longitudinal, and multi-institutional studies, and by incorporating the perspectives of administrators, students, and technical staff, to develop a more comprehensive understanding of digital transformation in higher education.

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