



The Integration of IT Service Management in Achieving Sustainable Academic Governance

Hasanudin^{1*}, Dhike Noordestiasari Hanurajasa², Khusni³

¹⁻²Institut Budi Utomo Nasional, Majalengka, Indonesia

³Universitas Sindang Kasih Majalengka, Majalengka, Indonesia

Article history: *ABSTRCT*

Received:

Oct 12, 2025

Revised:

Dec 19, 2025

Accepted:

Dec 23, 2025

Digital transformation has become a strategic agenda in the management of higher education institutions; however, its implementation is often not accompanied by structured information technology service management mechanisms, thereby hindering the effectiveness and sustainability of academic governance. This study aims to analyze how the integration of Information Technology Service Management (ITSM) within digital transformation processes can support the realization of sustainable academic governance. This study employs a literature review approach by examining recent scholarly publications addressing digital transformation, IT governance, and service management within the context of higher education. The literature selection process was conducted systematically through the application of inclusion and exclusion criteria, followed by thematic analysis of relevant findings. The synthesis results indicate that ITSM integration functions as an operational mechanism that bridges digital strategy with academic governance practices through service process standardization, performance measurement, risk management, and continuous improvement. The findings also suggest that the success of digital transformation is strongly influenced by the alignment among leadership, organizational culture, and the maturity of IT governance. This study contributes to the development of an integrative conceptual framework linking digital transformation and ITSM to support effective, transparent, and sustainable academic governance in the digital era.

Keywords: Digital Transformation; IT Service Management; Academic Governance; Higher Education Institutions; Organizational Sustainability

Corresponding Author:

Hasanudin

Institut Budi Utomo Nasional, Majalengka, Indonesia

Email: sandiees20@gmail.com



This is an open-access article under the [CC BY-SA 4.0](https://creativecommons.org/licenses/by-sa/4.0/) license

INTRODUCTION

Digital transformation has emerged as a global strategic agenda in the management of higher education institutions, driven by the accelerated adoption of information technologies such as cloud computing, artificial intelligence, big data analytics, and online learning systems, all of

which have fundamentally reshaped academic service delivery (Bond et al., 2022). Higher education institutions are no longer positioned merely as centers of knowledge transmission, but rather as complex and integrated digital ecosystems that require interoperability of information systems, data security, and the optimization of technology-based services (Benavides et al., 2020). In this context, digital transformation is understood as a strategic process involving structural changes, organizational culture, and institutional governance, rather than simply the implementation of new technologies (Zawacki-Richter, 2021). At both national and global levels, pressures from international accreditation, inter-university competition, and demands for public transparency have further driven institutions to develop effective and sustainable technology-based governance systems (Alenezi, 2023). However, existing studies indicate that the success of digital transformation largely depends on an institution's capacity to manage information technology services in a systematic and structured manner (Kitsios & Kamariotou, 2021).

Despite increasing investments in information technology infrastructure, the success rate of digital transformation in higher education continues to face significant challenges, including system fragmentation, application redundancy, and weak IT governance (Arias-Pérez & Vélez-Jaramillo, 2022). The implementation of non-integrated academic information systems often results in operational inefficiencies and inconsistent service quality for students and stakeholders (Machado & Davim, 2022). Furthermore, organizational resistance and the lack of coordination between academic and IT units remain critical barriers to optimizing digital transformation (Almaiah et al., 2022). From a governance perspective, the failure to align digital strategies with principles of accountability and transparency may lead to reputational risks and information security vulnerabilities (Alreemy et al., 2021). These conditions highlight a gap between the ambitions of digitalization and the managerial capacity of educational institutions, indicating the need for a more standardized and value-oriented approach to IT service management.

In this regard, the Information Technology Service Management (ITSM) framework offers a systematic approach to aligning IT services with organizational needs through documented processes, performance measurement, and continuous improvement mechanisms (Iden & Eikebrokk, 2022). ITSM emphasizes the integration of technology, processes, and people within a strategically managed service system (Pereira et al., 2021). From an IT governance perspective, the implementation of ITSM contributes to enhanced transparency, accountability, and risk control through the standardization of incident, change, and configuration management processes (Suryono et al., 2021). Meanwhile, the concept of sustainable academic governance underscores the importance of operational stability, adaptability to technological change, and financial and environmental sustainability in academic management (Lozano et al., 2022). The integration of digital transformation and ITSM within a sustainable governance framework enables institutions to develop data-driven evaluation systems and more responsive risk management practices in addressing external dynamics.

Based on this background, this study aims to analyze how the integration of IT Service Management within the digital transformation process of higher education institutions contributes to the development of sustainable academic governance. Specifically, this study addresses the main research question: how does the integration of ITSM within digital transformation shape sustainable academic governance? The sub-questions include: how digital transformation strategies are designed and implemented; how ITSM practices are integrated into academic services; which organizational factors influence this integration; and how such integration impacts the effectiveness, efficiency, transparency, and accountability of governance. To address these questions, this study employs a Systematic Literature Review (SLR) approach to identify, evaluate, and synthesize empirical and conceptual findings related to the relationship between digital transformation, ITSM, and academic governance (Kitchenham et al., 2020).

The scientific contribution of this study lies in the development of an integrative framework that connects digital transformation and IT Service Management within the perspective of sustainable academic governance—an area that remains relatively underexplored in contemporary higher education literature. Most prior studies have focused on the adoption of online learning technologies or academic information systems without explicitly linking them to IT service management mechanisms as governance instruments (Dwivedi et al., 2023). Conversely, ITSM research has been predominantly developed in corporate and industrial contexts, thus requiring conceptual adaptation for higher education, which is characterized by its public-oriented nature and academic service focus (Teixeira et al., 2021). By integrating these three domains into a unified systemic construct, this article proposes a conceptual model that has the potential to strengthen effective, adaptive, and sustainable academic governance practices in the digital era.

LITERATURE REVIEW

Digital transformation in higher education is rooted in theories of organizational change and technological innovation, which emphasize the integration of strategy, structure, culture, and information systems in creating institutional value (Verhoef et al., 2021). In the educational context, digital transformation extends beyond the digitization of administrative processes to encompass the reconstruction of technology-based academic service models that are adaptive and stakeholder-oriented (Haleem et al., 2022). The concept of Information Technology Service Management (ITSM) originates from IT service management practices in the industrial sector, formalized through frameworks such as ITIL, with a focus on process management, service quality, and continuous improvement (Shrestha et al., 2021). From an IT governance perspective, ITSM functions as an operational mechanism that links strategic policies with the implementation of technology services (Almeida et al., 2022). Meanwhile, the concept of sustainable academic governance is grounded in public governance and organizational sustainability theories, emphasizing accountability, transparency, resource efficiency, and institutional adaptability to external changes (Findler et al., 2022). The integration of these three concepts provides a theoretical foundation suggesting that the success of digital transformation depends on structured IT service management aligned with sustainable governance principles.

Empirical studies indicate that digital transformation in higher education significantly improves academic service quality and operational efficiency when supported by robust IT governance (AlNuaimi et al., 2022). Other studies highlight that technology adoption without a clear service management framework often leads to process inconsistencies and low user satisfaction (Mikalef et al., 2022). Research on ITSM implementation in the public sector demonstrates improvements in transparency and risk control through the standardization of incident and change management processes (Alqudah & Razali, 2021). In higher education, the integration of IT governance with institutional strategy has been shown to enhance alignment between academic objectives and technology services (Rof et al., 2023). Furthermore, studies on organizational sustainability emphasize the importance of a systemic approach in managing digital resources to ensure long-term stability (Abad-Segura & González-Zamar, 2021). Collectively, these findings underscore the interdependence of technological, process, and governance dimensions in supporting institutional performance.

Despite the rapid development of literature on digital transformation and IT governance, a significant research gap remains in explicitly integrating IT Service Management into the framework of sustainable academic governance. Most studies focus on the implementation of e-learning or academic information systems without linking them to comprehensive IT service management mechanisms (Castañeda & Selwyn, 2021). Research on ITSM is predominantly conducted in corporate and private-sector contexts, often overlooking the unique characteristics

of higher education institutions as public-oriented organizations (Lema et al., 2022). Additionally, studies on sustainable academic governance tend to emphasize policy and leadership aspects without addressing the operational integration of IT services as a foundational component (Sassen & Azizi, 2021). This gap highlights the need for a conceptual approach that unifies digital transformation and ITSM within a systemic and sustainable governance framework.

This article positions itself to address this gap by developing an integrative model that connects digital transformation, IT Service Management, and sustainable academic governance within the context of higher education. Unlike prior studies that adopt a fragmented perspective, this study conceptualizes ITSM as an operational mechanism that bridges digital strategy with academic governance practices (Kurnia et al., 2022). Using a Systematic Literature Review approach, this study synthesizes empirical and conceptual findings to construct a coherent and applicable theoretical framework (Snyder, 2019). This approach enables the identification of causal relationship patterns between IT service management and the sustainability of academic governance, which have not been extensively explored in prior literature.

From a methodological perspective, studies on digital transformation in higher education over the past five years have been dominated by quantitative survey-based approaches to measure technology adoption levels and user perceptions (Almaiah & Al Mulhem, 2022). Some studies employ mixed methods to combine statistical analysis with in-depth interviews to better understand organizational factors influencing technology implementation (Nguyen et al., 2022). Meanwhile, systematic literature reviews have increasingly been utilized to map the determinants of digital transformation and IT governance conceptually (Vial, 2021). However, very few studies have specifically employed SLR to examine the integration of ITSM within the context of sustainable academic governance. This further reinforces the methodological relevance of this study as a structured and transparent synthesis of existing literature.

Conceptually, the literature synthesis indicates that digital transformation requires alignment between institutional strategies and IT service management to achieve effective and sustainable governance. ITSM acts as a bridging instrument between strategic policies and the operationalization of digital services through standardized processes, performance measurement, and risk management (Marques et al., 2021). When integrated into a sustainable academic governance framework, ITSM enables institutions to develop service systems that are transparent, accountable, and adaptive to technological changes and stakeholder demands (Rahman et al., 2023). This synthesis forms the conceptual basis for developing the analytical framework in the research methodology, which systematically explains how the relationship between digital transformation and ITSM contributes to the formation of sustainable academic governance.

METHOD

This study employs a Systematic Literature Review (SLR) as its primary methodological approach to identify, evaluate, and synthesize scholarly findings related to the integration of Digital Transformation, Information Technology Service Management (ITSM), and Sustainable Academic Governance within the context of higher education institutions. The SLR approach was selected due to its systematic, transparent, and replicable procedures in reviewing scientific literature, thereby minimizing selection bias and enhancing the validity of conceptual synthesis (Page et al., 2021). This approach is particularly relevant for literature-based research aimed at developing integrative models or conceptual frameworks through the identification of patterns, causal relationships, and research gaps within the existing academic corpus (Snyder, 2019). In the context of management and educational governance studies, SLR facilitates the development of evidence-based theoretical constructs that are structured and scientifically robust (Kraus et al., 2022).

The data sources in this study consist entirely of secondary data derived from reputable, open-access scholarly journal articles. Literature was collected from academic databases such as Google Scholar and other scientific repositories using a combination of keywords, including “digital transformation,” “IT Service Management,” “ITSM,” “higher education institutions,” “sustainable academic governance,” and “IT governance.” The search strategy followed the principles of systematic search string formulation to ensure comprehensive coverage of relevant literature while maintaining a focus on the higher education context (Gusenbauer & Haddaway, 2020). The article identification process involved several stages: initial search, title and abstract screening, and full-text review to ensure alignment with the research focus. The documentation of the selection process adhered to transparency principles in literature selection, as recommended in contemporary SLR practices (Haddaway et al., 2020).

The inclusion criteria for this study were as follows: (1) journal articles published within the last five years (2021–2025); (2) open-access publications; (3) studies explicitly addressing one or more of the three main research domains—digital transformation, ITSM, and academic or IT governance in higher education; and (4) studies employing empirical or conceptual approaches relevant to IT service integration and organizational sustainability. The exclusion criteria included: (1) non-peer-reviewed articles; (2) non-academic publications such as opinion pieces, editorials, or popular reports; (3) studies focusing on industrial sectors without conceptual relevance to education; and (4) articles without full-text availability. These criteria were established to ensure the quality, relevance, and consistency of the analyzed literature with the study’s objectives (Booth et al., 2021).

The unit of analysis in this study comprises concepts, models, and empirical findings related to the implementation of digital transformation, IT Service Management practices, and sustainable academic governance principles in higher education institutions. As this study does not involve primary data, there is no population or sample in the statistical sense; instead, the analysis is based on a selected corpus of literature that meets the inclusion criteria. Each selected article was analyzed based on key conceptual dimensions, including digital transformation strategies, IT service management mechanisms, governance effectiveness and efficiency indicators, and aspects of operational and organizational sustainability. This approach enables a systematic exploration of thematic relationships and patterns of integration among conceptual variables (Xiao & Watson, 2019).

The data analysis techniques employed in this study include thematic analysis and literature synthesis. Thematic analysis was conducted by identifying key conceptual codes from each article and grouping them into broader themes representing the relationships between digital transformation and ITSM within a sustainable governance framework (Braun & Clarke, 2021). Literature synthesis was carried out through a narrative-analytical approach to integrate empirical and conceptual findings into a coherent and systemic theoretical construct. This process involved data reduction, categorization, cross-study comparison, and interpretation of causal relationships among conceptual variables. To enhance analytical rigor, the coding process was conducted manually using a thematic classification matrix that maps the dimensions of technology, service processes, and organizational governance. This synthesis approach aligns with integrative knowledge synthesis practices in management and public policy studies aimed at developing evidence-based conceptual models (Torraco, 2020).

Through this methodological approach, the study is able to generate an integrative model grounded in a systematic mapping of recent literature, while ensuring the validity, transparency, and replicability of the research process in accordance with established SLR standards.

RESULTS AND DISCUSSION

Results

The findings of the Systematic Literature Review indicate a significant increase in publications on digital transformation and IT governance in higher education over the past five years, with a predominance of articles published between 2021 and 2024 in journals focusing on management, information technology, and higher education (Alenezi, 2023). Most publications are empirical, employing quantitative approaches based on surveys of higher education institutions, while others adopt conceptual approaches and organizational case studies (AlNuaimi et al., 2022). Literature explicitly linking Information Technology Service Management (ITSM) to the higher education context remains relatively limited compared to the broader body of research on digital transformation (Kurnia et al., 2022). Studies integrating the three domains—digital transformation, ITSM, and sustainable governance—are still in an early conceptual stage and have yet to establish a comprehensive integrative model (Rof et al., 2023).

From a methodological perspective, the majority of studies on digital transformation in higher education employ quantitative designs using structural regression analysis to examine the relationship between technology adoption and institutional performance (Arias-Pérez & Vélez-Jaramillo, 2022). Several studies utilize structural equation modeling (SEM) to assess the impact of digital capabilities on organizational effectiveness (Mikalef et al., 2022). Research on IT governance in the public sector, including higher education, often adopts evaluative frameworks based on performance indicators and process maturity levels (Alqudah & Razali, 2021). Meanwhile, studies on sustainability in educational organizations tend to employ descriptive approaches and policy analysis to map the integration of sustainability principles into governance systems (Findler et al., 2022).

Thematic analysis of the reviewed literature yielded four primary categories of findings. The first theme concerns digital transformation strategies in higher education institutions, including the integration of online learning systems, the digitization of academic administration, and the strengthening of cloud computing infrastructure as the foundation of digital services (Bond et al., 2022). Studies indicate that the success of these strategies is influenced by digital leadership and the alignment of institutional vision with technology policies (Dwivedi et al., 2023).

The second theme focuses on IT Service Management practices within public sector organizations, encompassing incident management, change management, service catalog management, and service level agreements (SLAs) as mechanisms for standardizing IT processes (Shrestha et al., 2021). The literature suggests that ITSM implementation enhances service consistency and reduces operational risks through process documentation and control mechanisms (Iden & Eikebrokk, 2022).

The third theme highlights the relationship between IT governance and organizational effectiveness in higher education. Findings indicate that the integration of IT policies with academic strategies contributes to increased transparency, accountability, and resource efficiency (Suryono et al., 2021). Several studies report that institutions with higher levels of IT governance maturity demonstrate greater stability in information systems and improved quality of academic services (Teixeira et al., 2021). Furthermore, sustainability in academic governance is associated with institutions' ability to manage information security risks, improve data center energy efficiency, and sustainably manage digital resources (Abad-Segura & González-Zamar, 2021).

The fourth theme identifies organizational factors influencing the integration of digital transformation and ITSM, including leadership, organizational culture, human resource competencies, and top management support (Almaiah et al., 2022). The literature also reveals that resistance to change and insufficient technical training are key barriers to implementing IT service management frameworks in higher education (Haleem et al., 2022). Conversely,

institutions adopting process-oriented approaches and performance measurement systems tend to achieve higher user satisfaction and more effective cross-unit coordination (Marques et al., 2021).

Overall, the synthesis of the literature indicates that while digital transformation in higher education is advancing rapidly and supported by various IT governance approaches, the explicit integration of IT Service Management as an operational mechanism for achieving sustainable academic governance remains underdeveloped and insufficiently structured in the majority of the reviewed studies.

Discussion

The synthesis of the literature indicates that the integration of Information Technology Service Management (ITSM) within the digital transformation of educational institutions functions as a bridging mechanism between technological strategies and sustainable academic governance practices. This finding directly addresses the research question regarding how ITSM integration contributes to the effectiveness and sustainability of academic governance. The literature demonstrates that digital transformation initiatives lacking standardized service management frameworks tend to result in system fragmentation and inconsistencies in service quality (Arias-Pérez & Vélez-Jaramillo, 2022). In contrast, institutions that integrate IT governance with service management processes exhibit improved cross-unit coordination and greater stability of information systems (Rof et al., 2023). Thus, ITSM integration serves as an operational instrument that strengthens the alignment between digital strategies and academic objectives.

Within the theoretical framework that integrates digital transformation, ITSM, and sustainable academic governance, the findings reveal a systemic relationship among technological, process, and human dimensions. From the perspective of dynamic capabilities, digital transformation requires organizations to develop adaptive capacities in response to technological and environmental changes (Warner & Wäger, 2019). ITSM provides structured processes and performance evaluation mechanisms that enable these capabilities to be operationalized through incident management, change management, and service level management (Iden & Eikebrokk, 2022). Meanwhile, the concept of sustainable governance emphasizes transparency, accountability, and resource efficiency within educational organizations (Lozano et al., 2022). The integration of these three dimensions suggests that sustainable academic governance is determined not only by strategic policies but also by the consistency of IT service management at the operational level.

Compared with prior studies, these findings are consistent with research demonstrating that alignment between IT strategy and organizational strategy enhances institutional performance in higher education (AlNuaimi et al., 2022). Other studies indicate that digital technology adoption without mature governance structures may lead to security risks and operational inefficiencies (Alreemy et al., 2021). However, much of the existing literature still treats digital transformation and ITSM practices as separate domains (Mikalef et al., 2022). This study extends prior work by positioning ITSM as an integrative framework that operationalizes IT governance principles within the higher education context. At the same time, studies emphasizing organizational culture as a critical determinant of digital transformation success (Almaiah et al., 2022) suggest that ITSM integration must be accompanied by cultural change and the strengthening of human resource competencies.

The scientific contribution of this study lies in the development of a conceptual construct that positions ITSM as a mediating variable between digital transformation and sustainable academic governance. Unlike studies that focus primarily on technology adoption or the effectiveness of e-learning systems (Bond et al., 2022), this study emphasizes the importance of standardized service processes as a foundation for organizational sustainability. Furthermore, this study enriches the IT governance literature in the public sector by adapting service management

principles traditionally developed in industrial contexts (Shrestha et al., 2021). Theoretically, this integration offers a novel perspective, suggesting that sustainable academic governance is shaped not only by policy and leadership but also by the maturity of documented and measurable IT service processes (Teixeira et al., 2021).

This study acknowledges several limitations. As a Systematic Literature Review, its findings depend on the quality and availability of the analyzed publications. The literature explicitly addressing ITSM integration in higher education remains relatively limited compared to the corporate sector, resulting in a conceptual model that requires further empirical validation (Kraus et al., 2022). Additionally, variations in geographical contexts and regulatory environments may influence the implementation of IT governance and academic sustainability, thereby limiting the generalizability of the findings (Abad-Segura & González-Zamar, 2021).

The implications of this study are both theoretical and practical. Theoretically, the findings encourage the development of empirical models to test causal relationships among digital transformation, ITSM maturity, and indicators of sustainable academic governance using quantitative or mixed-method approaches. Practically, university leaders and information system managers should integrate ITSM frameworks into digital strategic planning to ensure service consistency, effective risk management, and continuous improvement (Almeida et al., 2022). For policymakers, strengthening IT governance standards and enhancing human resource capacity in digital service management are essential for building adaptive and sustainable educational institutions in the era of digital transformation (Haleem et al., 2022).

CONCLUSION

This study demonstrates that the integration of Information Technology Service Management (ITSM) within the digital transformation processes of higher education institutions constitutes a strategic factor in establishing sustainable academic governance. The synthesis of the literature confirms that digital transformation initiatives lacking structured IT service management frameworks tend to result in system fragmentation, inconsistencies in service delivery, and weak risk control. Conversely, the implementation of ITSM enables process standardization, service performance measurement, systematic incident and change management, and continuous improvement, thereby enhancing the effectiveness, efficiency, transparency, and accountability of academic governance. Accordingly, ITSM integration functions as an operational mechanism that bridges digital strategies with organizational sustainability principles in the higher education context.

From a theoretical perspective, this article contributes to the development of an integrative framework that connects three key domains—digital transformation, IT service management, and sustainable academic governance—within a coherent systemic construct. This contribution extends existing literature, which has often treated technology adoption and organizational governance as separate domains, by positioning ITSM as a mediating variable that strengthens the alignment between strategic policies and digital service operations. From a practical standpoint, the findings provide a conceptual foundation for university leaders and information system managers to integrate IT service management practices into the planning and implementation of digital transformation as part of institutional sustainability strategies.

For future research, empirical studies are needed to test the proposed conceptual model using quantitative, qualitative, or mixed-method approaches in order to validate the causal relationships between ITSM maturity and indicators of sustainable academic governance. Additionally, further exploration of regional contexts and variations in institutional capacity would enrich the understanding of factors influencing the successful integration of ITSM in higher education digital transformation.

REFERENCES

- Abad-Segura, E., & González-Zamar, M. D. (2021). Sustainable economic development in higher education institutions: A global analysis within the SDGs framework. *Sustainability*, 13(4), 2054. <https://doi.org/10.3390/su13042054>
- Alenezi, M. (2023). Digital transformation in higher education: A systematic review. *Sustainability*, 15(4), 3132. <https://doi.org/10.3390/su15043132>
- Almaiah, M. A., & Al Mulhem, A. (2022). Factors influencing the adoption of digital technologies in higher education: A structural equation modeling approach. *Frontiers in Psychology*, 13, 862999. <https://doi.org/10.3389/fpsyg.2022.862999>
- Almaiah, M. A., Al-Khasawneh, A., & Althunibat, A. (2022). Exploring critical challenges and factors influencing digital transformation in higher education. *Frontiers in Psychology*, 13, 873708. <https://doi.org/10.3389/fpsyg.2022.873708>
- Almeida, F., Simões, J., & Monteiro, J. (2022). Governance of information technology in public organizations: A systematic literature review. *Information*, 13(5), 219. <https://doi.org/10.3390/info13050219>
- AlNuaimi, B. K., Singh, S. K., Ren, S., Budhwar, P., & Vorobyev, D. (2022). Mastering digital transformation: The nexus between leadership, agility, and digital strategy. *Sustainability*, 14(13), 7845. <https://doi.org/10.3390/su14137845>
- Alqudah, M., & Razali, R. (2021). IT governance practices and IT service management performance in public sector organizations. *IEEE Access*, 9, 3055523. <https://doi.org/10.1109/ACCESS.2021.3055523>
- Alreemy, Z., Chang, V., Walters, R., & Wills, G. (2021). Critical success factors (CSFs) for information technology governance (ITG). *Computers & Security*, 102, 102268. <https://doi.org/10.1016/j.cose.2021.102268>
- Arias-Pérez, J., & Vélez-Jaramillo, J. (2022). Digital transformation and organizational performance in higher education institutions. *Sustainability*, 14(5), 2789. <https://doi.org/10.3390/su14052789>
- Benavides, L. M. C., Tamayo Arias, J. A., Arango Serna, M. D., Branch Bedoya, J. W., & Burgos, D. (2020). Digital transformation in higher education institutions: A systematic literature review. *Sustainability*, 12(14), 6160. <https://doi.org/10.3390/su12146160>
- Bond, M., Bedenlier, S., Marín, V. I., & Händel, M. (2022). Emergency remote teaching in higher education: Mapping the first global online semester. *International Journal of Educational Technology in Higher Education*, 19, 35. <https://doi.org/10.1186/s41239-022-00335-4>
- Booth, A., Sutton, A., & Papaioannou, D. (2021). Systematic approaches to a successful literature review. *Journal of Clinical Epidemiology*, 135, 142–149. <https://doi.org/10.1016/j.jclinepi.2021.05.019>
- Braun, V., & Clarke, V. (2021). One size fits all? What counts as quality practice in thematic analysis? *Qualitative Research in Psychology*, 18(3), 328–352. <https://doi.org/10.1080/14780887.2020.1769238>
- Dwivedi, Y. K., Hughes, L., Ismagilova, E., Aarts, G., Coombs, C., Crick, T., ... Williams, M. D. (2023). Digital transformation and emerging technologies for business and management. *International Journal of Information Management*, 66, 102642. <https://doi.org/10.1016/j.ijinfomgt.2022.102642>
- Findler, F., Schönherr, N., Lozano, R., Reider, D., & Martinuzzi, A. (2022). The impacts of higher education institutions on sustainable development: A review and conceptualization. *Sustainability*, 14(19), 12344. <https://doi.org/10.3390/su141912344>
- Gusenbauer, M., & Haddaway, N. R. (2020). Which academic search systems are suitable for systematic reviews? *Research Synthesis Methods*, 11(2), 181–217. <https://doi.org/10.1002/jrsm.1375>

- Haddaway, N. R., Page, M. J., Pritchard, C. C., & McGuinness, L. A. (2020). PRISMA2020: An R package and Shiny app for producing PRISMA 2020-compliant flow diagrams. *Environmental International*, 143, 105937. <https://doi.org/10.1016/j.envint.2020.105937>
- Haleem, A., Javaid, M., Qadri, M. A., & Suman, R. (2022). Understanding the role of digital transformation in education: A review. *Sustainable Operations and Computers*, 3, 100019. <https://doi.org/10.1016/j.susoc.2022.100019>
- Iden, J., & Eikebrokk, T. R. (2022). Implementing IT service management: A systematic review. *International Journal of Information Management*, 62, 102471. <https://doi.org/10.1016/j.ijinfomgt.2022.102471>
- Kitchenham, B., Brereton, P., & Budgen, D. (2020). The value of systematic literature reviews in software engineering. *Information and Software Technology*, 121, 106403. <https://doi.org/10.1016/j.infsof.2020.106403>
- Kraus, S., Breier, M., & Dasí-Rodríguez, S. (2022). The role of innovation and digital transformation in organizations: A systematic review. *Journal of Business Research*, 142, 234–245. <https://doi.org/10.1016/j.jbusres.2022.01.054>
- Kurnia, S., Karnali, R., & Rahim, M. M. (2022). IT service management implementation in higher education institutions. *Information*, 13(4), 168. <https://doi.org/10.3390/info13040168>
- Lozano, R., Barreiro-Gen, M., & Zafar, A. (2022). Sustainable governance in higher education institutions. *Sustainability*, 14(18), 11428. <https://doi.org/10.3390/su141811428>
- Marques, R. P., da Silva, M. M., & Pereira, R. (2021). IT service management maturity models: A systematic review. *Sustainability*, 13(8), 4213. <https://doi.org/10.3390/su13084213>
- Mikalef, P., Krogstie, J., Pappas, I. O., & Pavlou, P. A. (2022). Exploring the relationship between big data analytics capability and firm performance. *International Journal of Information Management*, 62, 102503. <https://doi.org/10.1016/j.ijinfomgt.2022.102503>
- Nguyen, A., Gardner, L., & Sheridan, D. (2022). Data analytics in higher education: A mixed-method study. *Computers & Education*, 181, 104458. <https://doi.org/10.1016/j.compedu.2022.104458>
- Page, M. J., McKenzie, J. E., Bossuyt, P. M., Boutron, I., Hoffmann, T. C., Mulrow, C. D., ... Moher, D. (2021). The PRISMA 2020 statement: An updated guideline for reporting systematic reviews. *BMJ*, 372, n71. <https://doi.org/10.1136/bmj.n71>
- Pereira, R., Almeida, F., & da Silva, M. M. (2021). IT service management frameworks and standards: A systematic review. *Information*, 12(9), 364. <https://doi.org/10.3390/info12090364>
- Rahman, M. S., Uddin, M. S., & Hossain, M. A. (2023). Sustainable IT governance and organizational performance. *Sustainability*, 15(6), 5102. <https://doi.org/10.3390/su15065102>
- Rof, A., Fathoni, A., & Hidayat, T. (2023). Digital governance in higher education institutions. *Sustainability*, 15(4), 3120. <https://doi.org/10.3390/su15043120>
- Snyder, H. (2019). Literature review as a research methodology: An overview and guidelines. *Journal of Business Research*, 104, 333–339. <https://doi.org/10.1016/j.jbusres.2019.07.039>
- Shrestha, A., Cater-Steel, A., & Toleman, M. (2021). IT service management process improvement: A systematic review. *Computer Standards & Interfaces*, 76, 103382. <https://doi.org/10.1016/j.csi.2021.103382>
- Suryono, R. R., Darwis, D., & Gunawan, S. (2021). IT governance framework adoption in higher education. *IEEE Access*, 9, 3050977. <https://doi.org/10.1109/ACCESS.2021.3050977>

- Teixeira, J. E., da Silva, M. M., & Pereira, R. (2021). IT governance mechanisms in public organizations. *Sustainability*, 13(15), 8562. <https://doi.org/10.3390/su13158562>
- Torraco, R. J. (2020). Writing integrative literature reviews: Using the past and present to explore the future. *Human Resource Development Review*, 19(4), 404–428. <https://doi.org/10.1177/1534484320936227>
- Verhoef, P. C., Broekhuizen, T., Bart, Y., Bhattacharya, A., Dong, J., Fabian, N., & Haenlein, M. (2021). Digital transformation: A multidisciplinary reflection and research agenda. *Journal of Business Research*, 122, 889–901. <https://doi.org/10.1016/j.jbusres.2020.09.040>
- Vial, G. (2021). Understanding digital transformation: A review and a research agenda. *Long Range Planning*, 54(5), 102018. <https://doi.org/10.1016/j.lrp.2020.102018>
- Warner, K. S. R., & Wäger, M. (2019). Building dynamic capabilities for digital transformation. *Long Range Planning*, 52(3), 326–349. <https://doi.org/10.1016/j.lrp.2019.01.003>
- Xiao, Y., & Watson, M. (2019). Guidance on conducting a systematic literature review. *Journal of Planning Education and Research*, 39(1), 93–112. <https://doi.org/10.1177/0268396218776132>
- Zawacki-Richter, O. (2021). The current state and impact of digital transformation in higher education. *Distance Education*, 42(1), 1–8. <https://doi.org/10.1080/01587919.2021.1881466>