REVISTA INVECOM
ISSN en línea: 2739-0063

Administrative efficiency in public higher education: a systematic review of the evidence

Eficiencia administrativa en la educación superior pública: una revisión sistemática de la evidencia

Received: 12/05/2026 - **Accepted:** 23/07/2026

Karen Yeralin Chunque Zamora
https://orcid.org/0000-0002-0131-2597
kchunquez@ucvvirtual.edu.pe
Universidad Cesar Vallejo. Lima, Peru

Abstract

This systematic review set out to examine administrative efficiency in public higher education. Methodologically, the study adopted a basic qualitative design grounded in theoretical foundations, with each selected article analyzed and interpreted following the PRISMA method. The sample comprised 23 scientific articles indexed in Scopus, Web of Science, and SciELO—databases regarded as high-impact sources for evaluating scientific information—applying inclusion criteria limited to open-access articles published within the last five years; articles with restricted access were excluded from the analysis. The review concludes that administrative efficiency in publicly managed higher education institutions constitutes a multidimensional construct encompassing the optimization of institutional processes, the strategic management of resources, the adoption of emerging technologies, and the strengthening of university governance. The evidence examined further shows that public universities have moved away from traditional, procedure-bound administrative models toward approaches centered on results, continuous improvement, and digital transformation.

Keywords: Educational efficiency, public administration, higher education

Resumen

La revisión sistemática realizada tuvo como objetivo analizar la eficiencia administrativa en la educación superior pública. Como metodología, se seleccionó el tipo básica, al evaluar con respaldos teóricos, de enfoque cualitativo y por analizar e interpretar cada artículo seleccionado bajo el método PRISMA. Como muestra, se evaluaron 23 artículos científicos indexados en Scopus, Web of Science y SciELO, considerados de alto impacto en la evaluación de información científica, y aplicando en los criterios de inclusión artículos de acceso abierto de los últimos 5 años. Se excluyeron artículos restringidos para el análisis. Esta revisión sistemática permitió concluir que la eficiencia administrativa en las instituciones de educación superior de gestión pública constituye un constructo multidimensional que integra la optimización de procesos institucionales, la gestión estratégica de recursos, la incorporación de tecnologías emergentes y el fortalecimiento de la gobernanza universitaria; señalando que la evidencia científica revisada demuestra que las universidades públicas han evolucionado desde modelos administrativos tradicionales, centrados en procedimientos burocráticos, hacia enfoques orientados a resultados, mejora continua y transformación digital.

Palabras clave: Eficiencia de la educación, administración pública, enseñanza superior.

Introduction

Administrative efficiency stands as one of the essential factors shaping the capacity of public higher education institutions to fulfill their institutional mission, ensure the rational use of public resources, and respond promptly to societal demands. In recent years, public universities have confronted major challenges tied to management modernization, digital transformation, the streamlining of administrative

processes, and the ongoing improvement of institutional quality (Alvarez et al., 2023). UNESCO has reported that more than 250 million students are currently enrolled in higher education institutions worldwide, a figure that continues to rise and that compels governments to strengthen the administrative capacity of public universities so they can respond promptly to emerging educational demands (Vieira et al., 2022). A scoping review published in *Education Sciences* found that most recent research concentrates on designing models to assess the efficiency of administrative processes within universities, and concluded that considerable methodological heterogeneity persists, which hinders meaningful comparison of findings across institutions and countries (Fretel et al., 2026).

In South America, the administrative efficiency of public higher education institutions stands out as one of the central challenges to building university systems capable of meeting demands for quality, innovation, and sustainable development (UNESCO, 2024a). In Peru specifically, the administrative efficiency of public universities has gained particular relevance as a result of reforms aimed at strengthening educational quality and ensuring results-oriented public management (UNESCO, 2024b). Within this process, the institutional licensing scheme promoted by the National Superintendency of Higher Education (SUNEDU) has driven notable progress in infrastructure, research, academic management, and student services (UNESCO, 2023), even as many institutions continue to face constraints linked to the modernization of administrative processes, digital transformation, strategic planning, human talent management, and the optimization of public spending (UNESCO, 2024a).

Against this backdrop, conducting a systematic review of administrative efficiency in public higher education is particularly warranted, given that the available scientific production remains scattered across different databases and draws on a wide range of methodological approaches to assess institutional management. A rigorous synthesis of the evidence makes it possible to identify the principal dimensions associated with administrative efficiency, to recognize the strategies adopted by different university systems, to analyze existing gaps, and to propose lines of inquiry aimed at strengthening public university management.

Building on the foregoing, the following research question is posed: How does administrative efficiency in publicly managed higher education present itself according to a systematic review?

This research carries significant social relevance, since its findings benefit university authorities and educational administrators alike, as well as those responsible for formulating public policies aimed at strengthening public higher education (Hadi et al., 2023). From a practical standpoint, the study allows for the systematization and analysis of scientific findings related to administrative efficiency in public higher education institutions, with a view to providing evidence that supports institutional decision-making (Huaman et al., 2022). The research also offers an important methodological contribution, as it advances the scientific community's understanding through the identification and analysis of the methodological approaches used in studies on administrative efficiency in public higher education (Medina et al., 2023). Its theoretical justification, in turn, lies in its contribution to strengthening scientific knowledge on administrative efficiency within the context of public higher education (Paragua et al., 2022).

Álvarez-Sández et al. (2023) conducted a scoping review in Mexico aimed at analyzing the methodologies used to measure the efficiency of administrative processes in higher education institutions between 2017 and 2022; the results showed that *Lean Management* and *Six Sigma*, together with a range of performance indicators, are effective tools for optimizing university administrative processes; they concluded that methodological heterogeneity in measuring administrative efficiency persists, making it necessary to develop more homogeneous and context-sensitive instruments to strengthen the quality of university management.

Tran et al. (2023) put forward a study in Australia aimed at analyzing the influence of administrative intensity on institutional efficiency in universities; the results showed that a well-balanced administrative structure contributes significantly to improved organizational performance, whereas excessive growth can

generate institutional inefficiencies. The authors concluded that the strategic planning of administrative human capital is a predominant factor in strengthening university productivity.

Fernández-Bedoya et al. (2026) authored an international systematic review examining the scientific evidence on governance and decision-making in public universities during the era of artificial intelligence; the findings revealed that the integration of digital tools enhances administrative efficiency and strengthens institutional capacity for strategic decision-making. The authors concluded that digital governance stands as one of the essential contemporary challenges facing public higher education institutions.

Tzanoulinou et al. (2026) conducted a scoping review in Greece aimed at analyzing the impact of artificial intelligence on cost reduction and operational efficiency in public higher education institutions; the authors found that the automation of administrative processes helps optimize the allocation of institutional resources while also strengthening university strategic planning. They concluded that emerging technologies represent an important resource for optimizing the administrative efficiency of public universities.

The first theory underpinning administrative efficiency in higher education is General Systems Theory, originally proposed by Ludwig von Bertalanffy and widely applied in contemporary organizational studies; this theory holds that organizations function as open systems whose mechanisms sustain ongoing relationships of interdependence, and whose effectiveness depends on an adequate balance between their internal and external elements (Damian et al., 2025).

The second theory grounding administrative efficiency is Results-Based Management Theory, whose central aim is to steer institutional administration toward the effective attainment of previously established objectives. This approach holds that organizational efficiency should be measured not solely in terms of the appropriate use of available resources, but also against the results actually achieved (Jain & Gulati, 2025).

Another relevant theory is the New Public Management approach, which has gained particular importance in recent years owing to demands for institutional modernization and accountability within educational organizations. This paradigm proposes incorporating principles associated with efficiency, innovation, and performance evaluation typical of modern administration, with the aim of strengthening institutional capacity to respond to the needs of its users (Pearce, 2025).

Administrative efficiency in higher education can be defined as the institutional capacity to strategically manage human, financial, and technological resources in order to achieve the organization's intended goals and ensure quality educational services. From this perspective, its scope extends beyond the mere operational discharge of functions, since it also encompasses processes related to planning, innovation, and continuous improvement (Barros et al., 2024).

Administrative efficiency can also be understood as the capacity of higher education institutions to maintain an appropriate balance between the rational use of their resources and the effective attainment of sustainable institutional outcomes. In this sense, universities need to develop sufficiently flexible organizational structures that strengthen decision-making and ensure coordination across the various administrative and academic units (Coronel & Trigos, 2024).

Administrative efficiency in higher education has also been defined as a dynamic process grounded in the implementation of management models oriented toward verifiable and measurable results. Under this approach, universities must develop indicators that make it possible to continuously evaluate administrative and academic performance, taking into account factors such as service quality, budget execution, and the fulfillment of institutional strategic objectives (De la Cruz & Mergoni, 2024).

Building on the foregoing, the general objective of this research is to analyze administrative efficiency in public higher education: a systematic review of the evidence. On this basis, the following specific objectives were proposed: 1) to identify the importance of administrative efficiency instruments in

publicly managed higher education, and 2) to describe the theories of administrative efficiency in publicly managed higher education.

Methodology

The research followed a basic design, aimed at generating new knowledge and broadening the understanding of the phenomena under study by seeking to explain their characteristics and theoretical foundations. It also contributes to scientific development by building evidence that serves as a basis for future research and applications across diverse contexts (Huaman et al., 2022).

The study followed a qualitative approach, allowing for an understanding of the experiences, perceptions, and meanings that individuals attribute to a given reality; this, in turn, supports an in-depth, interpretive analysis of the phenomena under study and enables the construction of contextualized knowledge drawn from the richness and complexity of the information gathered (Medina et al., 2023).

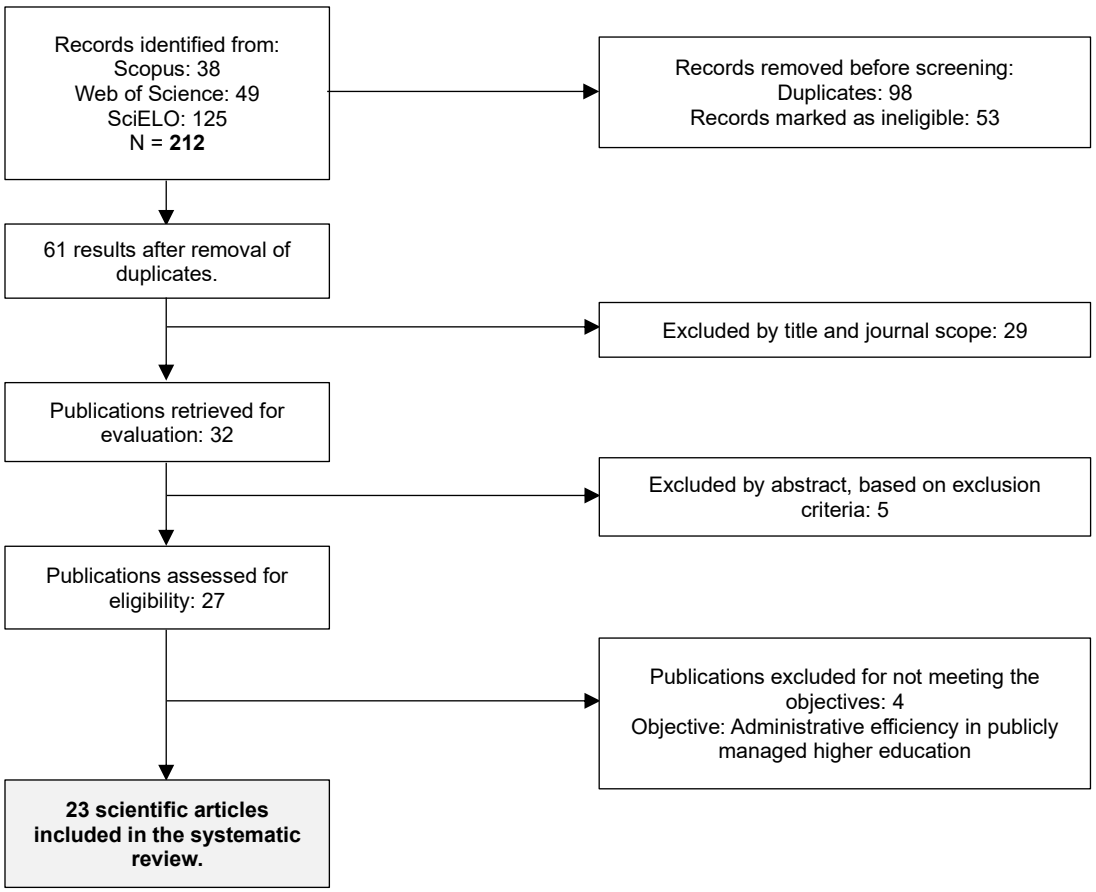
The systematic review served as the research method that made it possible to thoroughly identify, analyze, and synthesize the available scientific findings on a specific topic. Accordingly, it facilitated the integration of relevant findings and yielded well-founded conclusions that contribute to strengthening scientific knowledge and academic decision-making (Paragua et al., 2022).

Once the research methodology had been defined, inclusion and exclusion criteria were established to ensure the relevance and quality of the scientific evidence analyzed. High-impact scientific articles indexed in recognized academic databases (Scopus, Web of Science, and SciELO) were selected, providing access to rigorous, scientifically validated information. Publications from the past five years, in both Spanish and English, were considered in order to broaden the scope of the analysis and strengthen the consistency of the results obtained. Studies with clearly defined qualitative and quantitative methodological approaches were likewise incorporated, allowing for an adequate comparison of the findings. The literature search was carried out using keywords related to administrative efficiency, educational administration, higher education, and public education, combined with Boolean operators that optimized the precision and retrieval of scientific information. Finally, duplicate or incomplete studies, and those presenting significant methodological limitations, were excluded, thereby ensuring the soundness, rigor, and reliability of the systematic review process.

Verification analysis constitutes a systematic process aimed at checking the consistency, validity, and compliance of the criteria established over the course of a study, making it possible to confirm that the methodological procedures, the data obtained, and the conclusions drawn are properly substantiated. This helps ensure the scientific rigor and reliability of the results achieved (Romero et al., 2024).

Figure 1 presents the selection and screening process for the scientific articles identified for the systematic review. A total of 183 publications were initially retrieved from the Scopus, SciELO, and Web of Science databases; 111 articles were subsequently excluded because they did not meet the relevance criteria established for the study, leaving a total of 72 studies for closer evaluation. A verification analysis was then carried out to check their correspondence with the study's objective, ultimately yielding 23 articles that met the methodological and thematic conditions required for inclusion in the final analysis.

Figure 1. *Document selection procedure*



Results and discussion

The results presented below offer a broad and up-to-date perspective on the available scientific evidence; they also provide a solid foundation for understanding the contribution that management instruments make to strengthening administrative efficiency within public administration entities, thereby making it possible to identify their relevance to the optimization of organizational processes and the continuous improvement of public management.

The objective was to analyze administrative efficiency in publicly managed higher education institutions through a systematic review of the scientific literature. To this end, findings reported in national and international studies published in specialized academic databases were examined and synthesized, which made it possible to identify the main theoretical and empirical trends related to the administrative processes that contribute to strengthening institutional performance.

Table 1. *Result for the general objective*

No.	Year and author	Administrative efficiency
1	Alvarez et al. (2023)	Administrative efficiency in higher education institutions is closely tied to the implementation of Lean and Six Sigma methodologies, as these make it possible to optimize internal processes and reduce activities that add no value.

2	Jain and Gulati (2025)	Efficiency in higher education has evolved toward multidimensional models that take into account financial resources, academic productivity, and institutional management.
3	Nureña-Hidalgo (2026)	Modern administrative management contributes significantly to the optimization of public services through technological integration and institutional strategic planning.
4	Badiee et al. (2024)	The study identifies that higher education institutions face significant challenges related to operational efficiency owing to budgetary constraints.
5	See (2026)	The bibliometric analysis shows a considerable increase in research on university efficiency and productivity over recent decades.
6	Tzanoulinou et al. (2026)	The results show that artificial intelligence can contribute significantly to reducing administrative costs and optimizing institutional resources.
7	Espinoza (2026)	The results show that administrative modernization enhances organizational performance through digital transformation and institutional technological innovation.
8	De la Cruz and Mergoni (2024)	The study concludes that university governance grounded in artificial intelligence strengthens institutional capacity to respond promptly to changes in the environment.
9	Hidalgo (2026)	The research shows that organizational climate is a determining factor in strengthening educational quality and administrative efficiency in public universities.

The results evaluated in this systematic review make it possible to establish that administrative efficiency in publicly managed higher education institutions rests on three major complementary approaches: the first concerns the optimization of administrative processes through continuous-improvement methodologies such as Lean and Six Sigma; the second relates to digital transformation and the adoption of intelligent technologies to strengthen decision-making and automate procedures; and the third is associated with the strategic management of human talent and organizational culture as essential elements for ensuring institutional sustainability and university administrative efficiency, which should be understood as a comprehensive capacity to manage institutional resources rationally and continuously improve the educational services offered by public universities.

Table 2. *Results for specific objective 1*

No.	Year and author	Importance of management instruments
1	Núñez Escobar (2025)	Business Intelligence systems represent fundamental instruments for strengthening administrative efficiency, as they make it possible to integrate institutional processes and optimize university planning mechanisms.
2	Fernández-Bedoya et al. (2026)	University governance based on artificial intelligence constitutes an innovative instrument that supports predictive management and the efficient allocation of institutional resources.
3	Kanum and Rupan (2026)	The study identifies that administrative evaluation instruments make it possible to strengthen university managerial competencies in digital-transformation scenarios.

4	Llulluy-Núñez et al. (2026)	The research demonstrates that university management models constitute essential instruments for increasing institutional scientific output and optimizing academic research processes.
5	Rizos et al. (2026)	The implementation of Lean Management significantly enhances university administrative efficiency by reducing operational waste and strengthening institutional processes.
6	Gómez and Moyano (2022)	The Lean Management model constitutes an administrative management instrument that makes it possible to increase university productivity and strengthen the satisfaction of both internal and external users.
7	Technology Integration Review (2026)	Institutional technological integration facilitates the automation of administrative processes and strengthens organizational control mechanisms in public universities.

The results of this systematic review make it possible to establish that administrative management instruments in publicly managed higher education institutions fulfill three main functions: first, they improve institutional planning and decision-making through tools such as Business Intelligence and artificial-intelligence-based predictive systems; second, they support the optimization and standardization of administrative processes through methodologies such as Lean Management and continuous-improvement models; and finally, they strengthen organizational capacity and university governance through evaluation and control instruments that make it possible to monitor institutional performance.

The scientific evidence therefore demonstrates that management instruments constitute strategic factors for achieving higher levels of university administrative efficiency, since they make it possible to integrate information, optimize resources, strengthen internal processes, and foster an organizational culture oriented toward continuous improvement. Within the context of public universities, these instruments represent indispensable mechanisms for responding to growing social and academic demands and for ensuring transparent, sustainable institutional management.

Table 3. *Results for specific objective 2*

No.	Year and author	Theories of management instruments
1	Tran et al. (2023)	Theory of administrative economies of scale, which holds that public universities attain higher levels of administrative efficiency when they optimize the distribution of their institutional resources.
2	Woelert (2023)	Administrative burden theory shows that excessive university bureaucratization negatively affects institutional productivity, and it proposes more flexible administrative mechanisms aimed at strengthening university governance.
3	Cortés et al. (2021)	Institutional strategic planning theory shows that institutional mission and vision statements constitute fundamental instruments for strengthening university administrative planning and directing organizational performance toward clearly established strategic objectives.
4	Fiebig et al. (2021)	Digital transformation theory demonstrates that technological migration toward digital platforms significantly strengthens university administrative processes and improves institutional capacity to manage large volumes of academic information.

5	McConvey et al. (2023)	Humanist theory of algorithmic governance proposes that the administrative technology systems implemented in universities should be guided by ethical principles related to transparency and the protection of institutional and academic rights.
6	Chan (2023)	Ecological theory of digital governance indicates that university administrative efficiency depends on the proper integration of institutional leadership, technology policies, and ongoing mechanisms of organizational innovation.
7	Tello and Flores (2021)	The authors analyze the technical efficiency of Peruvian public universities using quantitative measurement models, demonstrating that institutional efficiency depends on the capacity to convert available resources into academic and administrative outcomes.

The studies analyzed show that administrative management instruments in public higher education institutions rest on a set of complementary theories that explain different dimensions of institutional efficiency. Administrative Economies of Scale Theory helps explain resource optimization; Administrative Burden Theory accounts for the need to simplify processes; Institutional Strategic Planning Theory grounds the orientation toward organizational objectives; and the theories of Digital Transformation and Digital Governance explain the adoption of technology as a mechanism for strengthening university management.

The scientific evidence supports the claim that management instruments should not be regarded merely as operational tools but rather as strategic mechanisms that bring together planning, technology, human resources, and institutional evaluation. In the context of public universities, their proper implementation contributes to strengthening administrative efficiency through processes that are more transparent, flexible, and oriented toward sustainable outcomes.

Conclusions

The systematic review makes it possible to conclude that administrative efficiency in publicly managed higher education institutions constitutes a multidimensional construct that integrates the optimization of institutional processes, the strategic management of resources, the adoption of emerging technologies, and the strengthening of university governance. In this regard, the evidence reviewed shows that public universities have evolved from traditional administrative models, centered on bureaucratic procedures, toward approaches oriented toward results, continuous improvement, and digital transformation.

It is concluded that administrative management instruments represent fundamental strategic mechanisms for strengthening institutional efficiency in public universities, as they make it possible to improve planning, optimize internal processes, and facilitate evidence-based decision-making. In this regard, the review of the studies showed that tools such as Business Intelligence systems, artificial intelligence models, *Lean Management* methodologies, and institutional evaluation systems contribute significantly to reducing unnecessary activities and improving organizational productivity.

It is concluded that theories related to university administrative efficiency reveal an evolution from classical approaches, oriented toward productivity and control, toward contemporary perspectives grounded in innovation and institutional governance. The review likewise identified the following as the main theoretical foundations: Administrative Economies of Scale Theory, which explains the optimization of institutional resources; Administrative Burden Theory, which highlights the need to reduce unnecessary bureaucratic processes; Institutional Strategic Planning Theory, which orients management toward organizational objectives; and the theories of Digital Transformation and Digital Governance, which explain the role of intelligent technologies in administrative modernization.

References

Álvarez-Sández, D., Velázquez-Victorica, K., Mungaray-Moctezuma, A., & López-Guerrero, A. (2023). Administrative Processes Efficiency Measurement in Higher Education Institutions: A Scoping Review. *Education Sciences*, *13*(9), 855. https://doi.org/10.3390/educsci13090855

Badiee, A., Moshtari, M., & Berenguer, G. (2024). A Systematic Review of Operations Research and Management Science Modeling Techniques in the Study of Higher Education Institutions. *European Journal of Operational Research, 93.* https://doi.org/10.1016/j.seps.2024.101889

Barros, F. R. de., Oliveira, J. V. F. de., Lima, H. C. G., Faustino, L. R., & Muglia, T. B. (2024). *Overcoming bureaucracy in higher education institutions: A systematic literature review*. *Educationis, 12*(2), 33–44. https://doi.org/10.6008/CBPC2318-3047.2024.002.0006

Coronel, R., & Trigos, F. (2024). Reframing Higher Education Management: A Transdisciplinary Digital Framework for University Administration. *Engineering for Social Change, Advances in Transdisciplinary Engineering,* 947 - 956. https://doi.org/10.3233/ATDE240950

Cortés, J. D., Rivera, L., & Bohle-Carbonelld, K. (2021). Mission Statements in Universities: Readability and Performance. *arXiv Preprint, 28*(2). https://doi.org/10.1016/j.iedeen.2021.100183

Chan, C. K. Y. (2023). A Comprehensive AI Policy Education Framework for University Teaching and Learning. *International Journal of Educational Technology in Higher Education, 20,* Artículo 38. https://doi.org/10.1186/s41239-023-00408-3

Damian, E., Zevallos, L., Chávez, J., Castañeda, M., & Engracio, J. (2025). Procesos administrativos y la gestión por resultados en educación superior. *Revista InveCom*, *5*(4), 1–8. https://doi.org/10.5281/zenodo.14920699

De la Cruz, M., & Mergoni A. (2024). Assessing the performance of Peruvian education system from a governance perspective. *Socio-Economic Planning Sciences. 93(1).* https://doi.org/10.1016/j.seps.2024.101891

Espinoza, J. (2026). Modernización administrativa y su impacto en el desempeño organizacional: Una revisión sistemática de la evidencia empírica (2021-2025). *Revista Espacios, 42*(1). https://doi.org/10.48082/espacios-a26v47n01r09

Fernández-Bedoya, V. H., Mejía-Osorio, A. G., & Rojas-Villanueva, E. J. (2026). Decision-Making and Governance in Public Universities in the Era of Artificial Intelligence: A Systematic Review. *Administrative Sciences*, *16*(7), 334. https://doi.org/10.3390/admsci16070334

Fiebig, T., Gürses, S., Gañán, C., et al. (2021). Heads in the Clouds: Measuring the Implications of Universities Migrating to Public Clouds. *ACM Digital Library, 2023*(2), 117–150. https://doi.org/10.56553/popets-2023-0044

Fretel, K., Diaz, H. G., Zubiaga, R. C., & Patiño, G. C. (2026). Gobernanza ágil en educación superior: revisión sistemática y bibliométrica de la eficiencia interdisciplinaria. *Revista Prisma Social*, (52), 351–363. https://doi.org/10.65598/rps.5993

Gómez-Molina D., & Moyano-Fuentes J. (2022). Lean Management in Universities: A Systematic Literature Review. *International Journal of Lean Six Sigma, 13*(1), 156-177. https://doi.org/10.1108/IJLSS-12-2020-0224

Hidalgo, K. (2026). Systematic Review of the Organizational Environment in Public Universities and Its Impact on Educational Quality. *Revista Minerva,* *7*(19), 114-123. https://doi.org/10.47460/minerva.v7i19.278

Hadi, M., Martel, C., Huayta, F., Rojas, R. y Arias, J. (2023). Metodología de la investigación: Guía para el proyecto de tesis. ISBN: 978-612-5069-63-4 https://editorial.inudi.edu.pe/index.php/editorialinudi/catalog/view/82/124/149

Huaman, E., Anicama, E., González, E., Félix, H. y Chu, W. (2022). Metodología de la investigación científica. guía práctica para la elección, diseño y desarrollo de la investigación. Editado por: Universidad Autónoma de Ica SAC. *Fondo Editorial.* https://repositorio.autonomadeica.edu.pe/bitstream/20.500.14441/2558/2/METODOLOGIA%20DE%20LA%20INVESTIGACI%C3%93N%20CIENTIFICA.pdf

Jain, I., & Gulati, R. (2025). Efficiency in Higher Education: A Review of Research From 1977 to 2022. *Higher Education Quarterly*, *79*(1), e70010. https://doi.org/10.1111/hequ.70010

Kanum, K., & Rupan, P. (2026). A Scoping Review: A Documentary Research on Synthesizing a Conceptual Framework of Causal Factors Affecting the Administrative Effectiveness of Faculty Administrators in Rajabhat Universities in the Digital Disruption Era. *Education journal Faculty of Education, Nakhon Sawan Rajabhat University*, *9*(2), 217–233. https://doi.org/10.2774.EDU2026.2.284942

Llulluy-Núñez, D., Alvarado-Rojas, F., & Mauricio, D. (2026). 13 Years of Models Factors and Management Tools in University Research 2012-2024. *Multidisciplinary Reviews.* https://malque.pub/ojs/index.php/mr/article/view/15714

Medina, M., Rojas, R., Bustamante, W., Loaiza, R., Martel, C. y Castillo, R. (2023). Metodología de la investigación: Técnicas e instrumentos de investigación. *Instituto Universitario de Innovación Ciencia y Tecnología Inudi Perú.* https://doi.org/10.35622/inudi.b.080

McConvey, K., Guha, S., & Kuzminykh, A. (2023). A Human-Centered Review of Algorithms in Decision-Making in Higher Education. Proceedings of the 2023 CHI Conference on Human Factors in Computing Systems, *arXiv,* 223, 1–15. https://doi.org/10.1145/3544548.3580658

Nureña-Hidalgo, M. (2026). Impact of Administrative Management on the Optimization of Public Services: A Systematic Review. *Prohominum*, *8*(1), 373-387. https://doi.org/10.47606/acven/ph0448

Núñez Escobar, S. (2025). Impact of Information Technologies on University Management and its Relationship with Organizational Efficiency: A Systematic Review. *REDHECS, 33*(27), 202-220. https://ojs.urbe.edu/index.php/redhecs/en/article/view/3792

Organización de las Naciones Unidas para la Educación, la Ciencia y la Cultura (UNESCO). (2023). *The Higher Education Policy Observatory provides information on higher education policies and governance systems worldwide*. *UNESCO*. https://www.unesco.org/en/articles/higher-education-policy-observatory-provides-information-higher-education-policies-and-governance

Organización de las Naciones Unidas para la Educación, la Ciencia y la Cultura (UNESCO). (2024). *New insights into different models of higher education governance. UNESCO.* https://www.unesco.org/en/articles/new-insights-different-models-higher-education-governance

Pearce, J. (2025). *Quantifying administrative efficiency: Proposed figures of merit for university comparisons and ranking. Studies in Higher Education, 51*(4), 802–813. https://doi.org/10.1080/03075079.2025.2493966

Paragua, M., Bustamante, N., Norberto, L., Paragua, M. y Paragua, C. (2022*).* Formulación de Proyectos de Investigación y Tesis. *Investigación científica, primera edición*. https://es.scribd.com/document/635651612/LIBRO-INVESTIGACION-CIENTIFICA

Rizos S., Sfakianaki E., & Kakouris A. (2026). Unlocking Lean Potential in Higher Education: A Systematic Literature Review and Delphi Study. *International Journal of Lean Six Sigma, 17*(4). https://www.sciencedirect.com/org/science/article/abs/pii/S2040416626000111

Romero, R., Mayta, D., Ancaya, M., Tasayco, S., y Berrio, M. (2024). Método de investigación científica: Diseño de proyectos y elaboración de protocolos en las Ciencias Sociales. *Editorial Idicap Pacífico*, 1–94. https://doi.org/10.53595/eip.012.2024

See, K. (2026). Higher Education Efficiency and Productivity Studies: A Bibliometric Analysis for Future Research. *Humanities and Social Sciences Communications*, *13*(100).

https://www.nature.com/articles/s41599-025-06171-2?utm_source=researchgate.net&utm_medium=article

Tzanoulinou, D., Triantafyllopoulos, L., Vorvilas, G., Paxinou, E., Karousos, N., Dasaklis, T., Koutouzis, M., Kalles, D., & Verykios, V. S. (2026). *Artificial intelligence and cost reduction in public higher education: A scoping review of emerging evidence. arXiv.* https://doi.org/10.48550/arXiv.2604.04741

Tran, C. T. T. D., Dollery, B., & Yarram, S. R. (2023). The influence of administrative intensity on efficiency: An empirical analysis of Australian universities. *Economic Papers, 42*(3), 282-305. https://doi.org/10.1111/1759-3441.12387

Tello Miranda, M. A., & Flores Gutiérrez, J. O. (2021). La eficiencia técnica de las universidades públicas del Perú. *Industrial Data*, *24*(1), 153–176. https://doi.org/10.15381/idata.v24i1.19661

UNESCO International Institute for Higher Education in Latin America and the Caribbean (IESALC). (2024). *Higher Education Policy Observatory. UNESCO IESALC*. https://www.iesalc.unesco.org/en/policy-hub/observatory

Vieira do Nascimento, D., Mutize, T., & Roser Chinchilla, J. F. (2022). Acceso universal a la educación superior: Tendencias, barreras y factores impulsores. *Revista Educación Superior Y Sociedad (ESS)*, *34*(1), 642-667. https://doi.org/10.54674/ess.v34i1.437

Woelert, P. (2023). Administrative Burden in Higher Education Institutions: A Conceptualization and Research Agenda. *Journal of Higher Education Policy and Management, 45*(4), 409-422. https://doi.org/10.1080/1360080X.2023.2190967