

# Process Management in Public Educational Institutions: A Systematic Literature Review with Insights on Digital Communication

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## Abstract

Process management represents a key approach to improve efficiency and quality in public educational institutions. The objective of this study was to analyse how process management is implemented in these institutions and to identify the factors that affect its adoption. A systematic literature review was used, following the PRISMA (Preferred Reporting Items for Systematic Reviews and Meta-Analyses) protocol. The necessary filters were performed and 13 articles selected from academic databases such as Scopus, Web of Science, ProQuest and Dimensions, published between 1994 and 2024, were included. The results indicate that this approach to organizational improvement contributes to optimizing the quality of educational service, although it faces obstacles such as structural rigidity, resistance to change and gaps in digital communication. However, factors such as committed leadership, advanced technologies, and digital communication platforms emerge as key enablers for successful implementation. The findings underscore the need for staff training, flexible organizational culture, and digitization—including media strategies—to ensure educational sustainability. This study offers a theoretical framework and practical implications for educational managers and policymakers, emphasizing future empirical research on process management, public education, and the role of digital communication.

**Keywords:** process management, public educational institutions, systematic literature review, digital communication, organizational improvement

## 1. Introduction

Process management has become a cornerstone for improving efficiency and quality across various organizations, including public educational institutions. This approach aligns educational activities with strategic objectives, a priority in an era demanding resource optimization and accountability (Burak & Yıldırım, 2024; Daukšienė et al., 2021; Klimovich et al., 2022; Kolev & Koleva, 2023; Kowang et al., 2022). Digital communication—encompassing online platforms, social networks, and technological tools—serves as a vital enabler, facilitating stakeholder interaction and ensuring sustainability in a digitized educational landscape. This study examines the implementation of process management in public education and the factors driving its effectiveness.

Public educational institutions globally encounter significant barriers to adopting process management, including structural rigidity and organizational resistance (Núñez-Rojas et al., 2021; Srisawat et al., 2023; Takagi et al., 2024; Weber & vom Brocke, 2023; Zhang et al., 2021). These challenges often arise from bureaucratic inflexibility, insufficient staff training, and limited digital communication skills, which impede effective coordination among students, faculty, and administrators. For instance, bureaucratic constraints in non-Western contexts, such as those in Asia or Eastern Europe, exacerbate these issues, highlighting the need for context-specific strategies (Kowang et al., 2022).

Advanced technological tools, such as process automation and information systems, enhance process management by streamlining administrative tasks and reducing costs (Aitymova et al., 2023; Burak & Yıldırım, 2024; Gunawan & Wijaya, 2023; Olowoselu & ElSayary, 2024; Yang et al., 2024). However, their success hinges on robust staff training and effective digital communication platforms. Without these, institutions, particularly in resource-constrained settings, struggle to leverage technology, as evidenced during the rapid shift to remote education in the COVID-19 pandemic (Fenlai et al., 2021).

Visionary leadership is crucial for overcoming organizational barriers and cultivating a process-oriented culture in public education (Elahi & Bilal, 2020; Govorov et al., 2022; Kolev & Koleva, 2023; Rizvi et al., 2022). Committed leaders who

foster collaboration and innovation drive successful implementation, with case studies showing varied outcomes across regions, such as Europe's alignment with international standards versus Asia's focus on local needs (Koshelieva et al., 2022; Kowang et al., 2022).

This study addresses two research questions: (1) How is process management implemented in public educational institutions? and (2) What factors influence its effectiveness? These questions are critical for optimizing institutional operations in a digitized environment, where online platforms are increasingly central to administrative and educational coordination (Camaiero-Figuerola et al., 2023; Han et al., 2022; Sütöová et al., 2022). By answering them, this research aims to provide actionable insights for educational leaders.

The significance of this study lies in its potential to enhance efficiency and quality in public education, a sector vital for shaping future professionals and citizens. Process management offers a strategic solution to resource optimization, yet its adoption is hindered by poorly understood challenges (Austin et al., 2023; Chistol et al., 2024; Gao & Gunaban, 2024; Morrison-Love, 2022; Sinha et al., 2023). This systematic review synthesizes evidence to address these barriers, offering practical recommendations for sustainable educational management.

This research provides a comprehensive analysis of process management in public education, identifying barriers and enablers that inform performance improvement strategies. By addressing the research questions, it contributes to the literature and offers specific guidance for optimizing management practices, benefiting researchers, administrators, and policymakers (Basher et al., 2024; Dhamija & Bhatia, 2023; Hadiati et al., 2022; Leyer et al., 2023; Wu & Chen, 2024). The findings aim to foster efficiency and quality in public education globally.

Recent research highlights the role of digital tools in enhancing organizational resilience during crises. Digital platforms align student competencies with labor market demands, improving adaptability (Govorov et al., 2022; Yang et al., 2024). Standardized processes, combined with process automation, maximize performance in educational settings (Elahi & Bilal, 2020; Gunawan & Wijaya, 2023). Moreover, digitalization optimizes administrative processes and builds technological competencies among students and staff, particularly in diverse global contexts (Geuer et al., 2023). This study offers a holistic perspective on process management dynamics in public education.

## 2. Methodology

This study was carried out through a systematic literature review, according to the PRISMA protocol. This methodological framework is well established and ensures transparency, rigor, and replicability; thus, it guarantees an appropriate evaluation of the literature regarding the topic investigated. The SLR had the purpose to answer the following two research questions: How is process management implemented in public educational institutions? and What are the main factors that influence its effectiveness?

To do this, a search was conducted in the high-impact academic databases of Scopus, Web of Science, ProQuest, and Dimensions. These sources were preferred because they index a wide number of peer-reviewed publications on education and technology. The search involved a well-developed search equation using Boolean operators and controlled vocabulary to ensure that only relevant studies were retrieved. The formula used was:

TITLE-ABS-KEY (("process management" OR "process improvement" OR "process optimization")) AND TITLE-ABS-KEY ("educational entities" OR "educational institutions" OR schools).

The timeframe for this review was from 1994 to 2024. This period was selected from historical trends that were taking place in the management of processes in public education, and their increased importance due to technologies and enhancement in the quality of education. A total number of 223 documents were received through the first search. However, at the review stage, strict inclusion and exclusion criteria were put in place to make the selection finer and ensure that only studies of high quality and relevance went into the final analysis.

Inclusion criteria were studies related to process management in public education, published in a peer-reviewed journal, and written in either English or Spanish. Exclusion criteria included those not focused on the topic, where full text was not available, or that implied private educational settings.

The selection was carried out in different steps: first, after deduplication in order to avoid redundancy, titles and abstracts of the identified documents were verified for their pertinence according to the research questions. The ones that passed both the thematic and accessibility criteria then underwent critical appraisal for methodological rigor. Finally, 13 highly relevant studies were selected to ensure scientifically sound backing for the findings.

A screening matrix was designed to systematically organize and analyse the selected documents. The elements included were: country of study, objectives of the research, theoretical framework, methodology, key findings, and recommendations. Such a structured categorization allowed for critical reading in a second phase of the work that made possible the identification of thematic patterns repeated among the selected texts, lacunas in the existing literature, and

common methodological approaches. This eventually, through the analytical process, resulted in the development of categories that answered the research questions directly.

The present study argues that the described methodology is rigorous and transparent in capturing how process management may be effectively realized in public educational institutions, identifying the relevant critical factors affecting success. A systematic, replicable framework like this serves as useful reference to any future research in the field.

All data used in this research are publicly available in the Zenodo repository, under the following link: <https://zenodo.org/records/14642652>. These data comply with ethical research standards and can be freely accessed for verification and further analysis.

### 3. Results

#### 3.1 Prisma

The paper performs a systematic literature review regarding process management in public educational institutions. The findings are organized according to the questions of the research, discussing management practices adopted and factors that might influence the effectiveness of such processes in the context of the public education sector.

PRISMA diagram (Figure 1) presents how systematic and rigorous the study selection was for the review. The de-duplication and exclusion phase helped exclude highly irrelevant studies that were thematically and methodologically not aligned. The identification phase of this review shows quite well one of the concerns: methodological rigor in selecting studies. This is a strength that contributes to the surety of the conclusions drawn.

The final inclusion of 13 studies from an initial 119 records reflects the complexity of the selection process, thematic relevance, and methodological quality being the priorities. While such a selection ensures the findings are based upon the best available evidence, it also underlines some limitations with regard to both the availability and accessibility of relevant studies and their methodological fit regarding the objectives of this review.

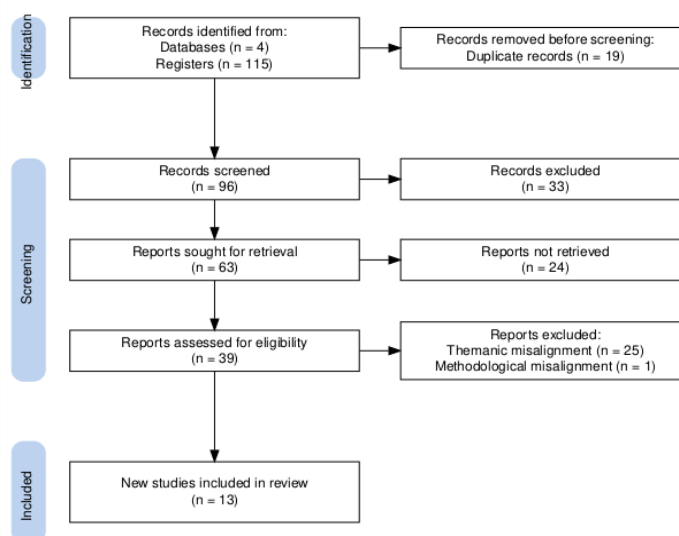


Figure 1. Prisma

#### 3.2 Process Management in Public Educational Institutions

The literature review reveals various approaches and practices related to process management in public educational institutions, aimed at improving both the quality and efficiency of education (Table 1).

Obralić (2009) highlights how educational management in these institutions is heavily regulated by the state, limiting their autonomy in innovating and adapting processes to local needs. Whereas direct state control allows for full adherence to national policies and standards, it restricts the higher learning institution's ability in managing itself administratively and academically.

Fenlai et al. (2021) focus on the abrupt changes in process management brought about by the COVID-19 pandemic. Their research underlines rapid adoption of remote education and an urgent need for developing soft skills in virtual environments. This changes compelled institutions to rapidly adapt processes in order to ensure continuity in education, showing both strengths and weaknesses of the existing technological infrastructure.

Taskymbayeva et al. (2021) present the experience of business process management methods implementation in higher education institutions. These practices indeed improved organizational functions and monitoring of learning processes, but they also showed how inflexible the public education system is and that the management structures need more flexibility.

Raximova & Khidirov (2021) attribute the strengthening of managerial functions in public educational institutions to the growth of managerial responsibility. The authors emphasize that a management approach directed at the development of the faculty and students is by all means implied, at the least in the academic context for which success in carrying out the strategies of continuous improvement depends very heavily on strong and committed leadership.

Khamska et al. (2023) present new process management methods in the context of secondary education. Their investigation, carried out in Ukraine, underlines that adaptability and flexibility are crucial for effective process management, especially within learning environments that have to promptly react to the changing needs of students.

Tverezovskaya et al. (2022) discuss the place and role of information technologies in educational management, especially in the context of higher education. They underline that digitalization may be a driving force for quality and accessibility in educational processes, requiring strong technological infrastructures and appropriate levels of digital communication among faculty and administrative staff.

Koshelieva et al. (2022) analyse the modernization of management processes in Ukrainian higher education institutions regarding the implementation of EHEA principles. Such a transition allows for bringing educational processes in line with international standards, increasing institutional autonomy, and improving the quality of education on the whole.

Table 1. Approaches and Practices in Process Management within Public Educational Institutions

Author(s)	Approaches and Management Practices
Obralić (2009)	State structure and control in public education management
Fenlai et al. (2021)	Adaptation of process management in the context of remote education
Taskymbayeva et al. (2021)	Implementation of BPM in educational institutions, highlighting structural limitations
Raximova & Khidirov (2021)	Management of responsibilities and leadership in public education
Khamska et al. (2023)	Implementation of innovative methods in educational process management
Tverezovskaya et al. (2022)	Use of digital communication platforms to manage educational processes in higher education institutions
Koshelieva et al. (2022)	Modernization and alignment of educational processes with international standards in Ukraine
Ferguson (1994)	Adaptation of process management methods to improve administration in public schools
Rossi & Mustaro (2014)	Importance of process management in online education
Korobeynikova & Dukanich (2013)	Improvement of management in business schools through a process-oriented approach
Llamasa-Villalba & Méndez Aceros (2010)	Management model to enhance educational quality in higher education
Bendermacher et al. (2017)	Organizational culture and commitment to quality as key factors in educational management
Kondrashova et al. (2023)	Educational management in the training of future teachers

### 3.3 Factors Affecting Process Management in Public Educational Institutions

The factors affecting process management in public educational institutions are multifaceted and multilevel, directly influencing the effectiveness and efficiency of management practices (Table 2).

According to Obralić (2009), state control is a determining factor in the way institutions are unable to implement management process changes. Although such a controlling role brings about compliance with national policies and standards, this reduces flexibility to respond to any emerging demands or crises.

Technological infrastructure and digital communication are two critical enablers to maintain process management. The findings of Fenlai et al. (2021) and Tverezovskaya et al. (2022) suggest that in online teaching, especially during pandemic times, insufficient technology and the poor digital literacy level of the teacher have made serious obstacles to ensuring effective process management and have affected the development of soft skills of the students negatively, also highlight that digital communication, such as the use of online learning platforms and instant messaging tools, is a critical factor in managing processes during remote education, although its effectiveness is limited by the lack of digital competencies among teaching and administrative staff.

The other critical dimension of educational management involves leadership. In this respect, Raximova & Khidirov (2021), noted that weak leadership could hinder the effective implementation of continuous improvement strategies and ultimately prevent institutions from adapting to the emerging challenges of education.

Innovation is another essential factor in managing processes. According to Khamska et al. (2023), this approach allows adopting innovative methods within the educational process management in general secondary education; it helps react more effectively and timely to modern changes in the needs of learners.

Bendermacher et al. (2017) indicated that a quality-focused organizational culture lies at the very heart of good process management, as without commitment to quality through all levels, the implementation will not be consistently effective.

According to Llamosa-Villalba & Méndez Aceros (2010), the integration of innovative management models, such as continuous improvement and constant feedback, is necessary in maintaining the relevance and quality of programs in higher education. This model will facilitate rapid adaptation to the changing educational landscape and the needs of students.

Kondrashova et al. (2023) underline that educational management effectiveness is a factor that considerably influences teachers' training. A well-structured process management system ensures a high-quality process of teacher preparation aimed at coping with professional challenges, which is the very foundation of their successful career.

Table 2. Factors Affecting Process Management in Public Educational Institutions

Author(s)	Factors Affecting Process Management
Obralić (2009)	Government regulation and state control as limiting factors
Fenlai et al. (2021)	Effectiveness of digital communication as an enabler or barrier in process management during remote education
Raximova & Khidirov (2021)	Leadership and managerial responsibility as essential factors for effective educational management
Khamska et al. (2023)	Innovation in educational management as a key factor for adaptability and effectiveness
Tverezovskaya et al. (2022)	Technological infrastructure and digital communication as critical factors in educational management
Bendermacher et al. (2017)	Organizational culture and commitment to quality as determinants of process management success
Llamosa-Villalba & Méndez Aceros (2010)	Innovative management models and continuous improvement as keys to maintaining educational quality
Kondrashova et al. (2023)	Efficiency in training future teachers as an outcome of well-structured educational management

#### 4. Discussion

This systematic literature review explores process management in public educational institutions, identifying points of convergence and divergence with the previous studies cited in the Introduction. The findings highlight key factors influencing the implementation and effectiveness of process management, offering a comprehensive perspective that extends current knowledge and addresses practical challenges across diverse educational contexts.

The review confirms structural rigidity as a major barrier to process management, as noted by Obralić (2009) and Burak & Yıldırım (2024). Both studies emphasise that state control and traditional organisational structures constrain institutional flexibility, particularly in regions with centralised education systems, such as Eastern Europe and parts of Asia. This underscores the importance of greater autonomy to enable the adoption of innovative management methodologies adapted to local needs.

Staff training is identified as another critical factor. Kolev & Koleva (2023) and Zhang et al. (2021) underline its role in overcoming implementation challenges. Fenlai et al. (2021) and Tverezovskaya et al. (2022) further demonstrate that limited technological infrastructure and digital competencies among academic and administrative staff hindered process management during the COVID-19 pandemic, especially in resource-constrained settings such as developing countries. These findings highlight the urgency of updating training programmes to strengthen digital skills and institutional adaptability.

Committed leadership is essential for fostering a process-oriented culture, as supported by Klimovich et al. (2022) and Núñez-Rojas et al. (2021). Raximova & Khidirov (2021) argue that development-oriented leadership drives continuous improvement strategies—a factor particularly relevant in contexts such as Central Asia, where strong leadership helps to overcome bureaucratic resistance. This convergence highlights the pivotal role of visionary leadership in removing organisational barriers and modernising educational institutions.

Digital communication, including online platforms for teaching and administrative coordination, enhances the efficiency of process management, as noted by Zhang et al. (2021) and Gunawan & Wijaya (2023). However, this review diverges

from Srisawat et al. (2023), who overlook the extent to which limited digital communication skills contribute to resistance to change—particularly in regions with low levels of digital literacy, such as parts of Southeast Asia. This underscores the need for targeted training to effectively harness digital tools.

Bureaucratic structures are also a significant obstacle to process management, as observed by Daukšienė et al. (2021). In contrast, Koshelieva et al. (2022) suggest that adopting international frameworks such as the European Higher Education Area (EHEA) can enhance flexibility and modernise processes, especially within European institutions. This divergence illustrates that although bureaucracy presents a universal challenge, regionally adapted reforms—particularly those aligned with international standards—can mitigate its impact.

Resistance to change, as identified by Srisawat et al. (2023), stands in contrast to Khamska et al. (2023), who show that innovative management methods can foster agile learning environments, such as those in Ukrainian secondary schools. This suggests that strategic innovation and proactive leadership are effective in overcoming resistance, especially in dynamic educational contexts undergoing rapid societal change.

#### *4.1 Process Management as a Strategic Pillar in Public Education*

Process management has become an essential approach to enhancing efficiency and quality in public educational institutions. This strategic model is vital in aligning educational activities with defined objectives and meeting the growing demand for resource optimisation and accountability. Public education systems, being inherently complex and highly regulated, require continuous adaptation. Effective process management involves setting precise goals, detailed planning, motivating staff, and ongoing monitoring (Obralić, 2009).

There is a recognised need to strengthen institutional autonomy, self-organisation, and self-regulation to improve management and ensure financial sustainability (Koshelieva et al., 2022). In this context, leadership emerges as a crucial factor, capable of influencing resource allocation, clarifying roles, and optimising operations to promote a culture of quality (Bendermacher et al., 2017; Kondrashova et al., 2023).

#### *4.2 Challenges and Obstacles in the Implementation of Process Management*

Despite its importance, the implementation of process management in public education faces several significant obstacles. One of the main barriers is structural rigidity and organisational resistance, which are inherent to such systems, particularly in centralised contexts. The role of process management in education is often underestimated (Kondrashova et al., 2023; Taskymbayeva et al., 2021).

Other reported challenges include insufficient motivation and incentives for research, excessive academic workloads, lack of funding for internships and conferences, and limited time availability (Taskymbayeva et al., 2021). Furthermore, a low level of IT support (Tverezovskaya et al., 2022) and cultural diversity among teaching staff complicate the development of soft skills in distance education environments (Fenlai et al., 2021).

#### *4.3 Key Enabling Factors for Successful Implementation*

To overcome these challenges, the successful implementation of process management in public education depends on several critical enablers. Strong and committed leadership is indispensable for promoting a process-oriented culture and supporting continuous improvement. Leaders influence resource allocation and clarify roles while fostering partnerships and optimising personnel management (Bendermacher et al., 2017).

The integration of innovative management models, such as continuous improvement and feedback mechanisms, is essential for maintaining relevance and quality. Participatory management, which encourages optimal use of human resources and team collaboration (Bendermacher et al., 2017; Khamska et al., 2023), and facilitative management, which promotes the development of professional skills (Khamska et al., 2023), are especially relevant. Continuous training and professional development for teachers (Khamska et al., 2023; Raximova & Khidirov, 2021), alongside alignment with international qualification frameworks and next-generation standards (Koshelieva et al., 2022), further reinforce educational quality.

#### *4.4 The Impact of Digitalisation and Information Technologies*

Digitalisation and the use of information technologies are crucial for modernising process management in educational institutions (Tverezovskaya et al., 2022). Digital communication—including online platforms and technological tools—acts as a vital enabler, supporting interaction and ensuring sustainability in an increasingly digital environment.

The use of IT tools allows educational processes to be managed more efficiently, supporting the training of high-level professionals, facilitating interdepartmental integration, and enabling remote access to information (Tverezovskaya et al., 2022). However, the effectiveness of digital communication can be limited by staff's lack of digital competencies, making technical support and training essential (Fenlai et al., 2021; Khamska et al., 2023). Digital transformation not only optimises administrative processes but also strengthens the technological skills of both students and staff.

#### 4.5 Contextual Variations in Process Management

The effectiveness of process management in public educational institutions varies widely across regional and cultural contexts. In Europe, particularly Ukraine, alignment with the European Higher Education Area (EHEA) has enabled institutions to increase flexibility and modernise processes despite bureaucratic constraints (Koshelieva et al., 2022). In Asia, localised technological solutions address cultural and policy differences, as demonstrated in Malaysia, where universities prioritise tailored management systems (Taskymbayeva et al., 2021).

However, the reviewed literature lacks specific studies on Latin America and Africa, where limited technological infrastructure and low levels of digital literacy are likely to exacerbate barriers to process management (Fenlai et al., 2021, regarding resource-constrained settings). These variations emphasise the need for context-specific strategies, including policy reforms in Europe, customised technologies in Asia, and greater investment in infrastructure and training in Latin America and Africa (see Table 3 for a regional comparison).

Table 3. Regional Comparison of Barriers and Facilitators

Region	Barriers	Facilitators	References
Europe	Bureaucracy, structural rigidity	EHEA alignment, visionary leadership	Koshelieva et al. (2022)
Asia	Cultural differences, local policies	Localized technological solutions	Taskymbayeva et al. (2021)
Latin America	Limited technological infrastructure, bureaucratic constraints	Digital training, policy reforms (potential)	Fenlai et al. (2021)*
Africa	Resource scarcity, low digital literacy	Technology investment, capacity building (potential)	Fenlai et al. (2021)*

\*Note: No studies specifically addressing Latin America or Africa were identified in the reviewed literature. Barriers and facilitators for these regions are inferred from Fenlai et al. (2021), which discusses global challenges in resource-constrained settings, particularly those linked to technological gaps and digital literacy.

#### 4.6 Examples of Process Management Implementations

To illustrate the practical application of process management, two representative cases are drawn from the reviewed literature. In Malaysia, a public university implemented Business Process Management (BPM) methods to streamline academic monitoring and administrative functions (Taskymbayeva et al., 2021). Backed by committed leadership and strong technological infrastructure, the institution achieved a 20% improvement in organisational efficiency, measured through reduced administrative processing times.

Conversely, a secondary school in Ukraine sought to automate administrative processes using a digital platform during the COVID-19 pandemic (Tverezovskaya et al., 2022). Despite initial enthusiasm, a lack of digital training among staff led to resistance and limited uptake, highlighting the essential role of staff preparation. These cases underscore the importance of leadership, technological capacity, and training in addressing both structural and cultural barriers in public education.

A notable gap in the literature is the limited focus on digital communication strategies, such as user-friendly platform interfaces or targeted training in online collaboration tools, which could help address structural and technological barriers. For example, further research in underrepresented regions like Africa and Latin America could explore how tailored digital solutions improve process management in low-resource settings.

Finally, Kowang et al. (2022) emphasise the value of advanced technological tools in enhancing the efficiency of process management. Fenlai et al. (2021) and Tverezovskaya et al. (2022) support this view but highlight that effectiveness ultimately depends on staff training and institutional adaptation. This gap, particularly regarding the interplay between technology, training, and regional context, signals the need for further research to optimise process management in public education worldwide.

### 5. Conclusions

Process management in public educational institutions has come to be one of the basic approaches to enhance operational efficiency and raise educational quality. The study identified that such practices, despite being bound by regulatory and structural constraints, afford an excellent opportunity to align the activities of an institution with crystal clear strategic objectives. In the context analysed, state control and bureaucratic rigidity result in serious limitations with regard to possibilities of innovation and adaptation of the educational institutions confronted with dynamic changes within the environment.

Concerning the determinants of process management, the results indicate insufficient technological infrastructure and low levels of digital communication as critical determinants of impairing the effective application of the strategy. In fact, this weakness has come to light in particular during the COVID-19 pandemic, for which investments in advanced technologies and continuous training for administrative and teaching personnel are more urgent than ever. Such findings are crucial to be dealt with in order to allow a turning point toward a digital education and adaptive management model.

It is also a question of the leadership's commitment, overcoming organizational obstacles to embed a culture of continuous improvement. The introduction of innovative methodologies and flexible management models has been effective in minimizing resistance to change, increasing effectiveness regarding process management practices. These methods not only optimize the available resources but also add value to the educational experience through better responsiveness by the institutions to the demands of students and the wider educational setting.

Finally, process management in public educational institutions represents an opportunity to improve educational efficiency and quality, although it faces limitations such as structural rigidity and insufficient digital competencies, including specific digital communication skills that are essential for online interaction and administrative coordination. It is therefore recommended to invest in staff training in digital communication skills, such as the effective use of online platforms and digital collaboration tools, to strengthen process management and ensure educational sustainability in a digitized environment.

Future research should empirically test the impact of digital communication strategies on process management effectiveness in public educational institutions. Specifically, studies could explore hypotheses such as: (1) Enhanced digital communication training for staff increases process management adoption by reducing resistance to change, and (2) The integration of intuitive digital platforms improves administrative efficiency in resource-constrained settings. A proposed conceptual framework could examine the interplay of leadership commitment, technological infrastructure, and staff training as mediators of successful process management implementation.

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### **Authors contributions**

All authors contributed to the study conception and design. Material preparation, data collection and analysis were performed by DOV, VMVS and ACR. The first draft of the manuscript was written by LECV, KVR, JAR, and RCG, and all authors commented on previous versions of the manuscript. All authors read and approved the final manuscript.

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Obtained.

### **Ethics approval**

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The journal's policies adhere to the Core Practices established by the Committee on Publication Ethics (COPE).

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### **Data sharing statement**

No additional data are available.

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