

# The Knowledge Bottleneck: Analyzing Barriers to Effective Knowledge Management System (KMS) Use in Public Institutions

Irfan Ramdani<sup>1,2\*</sup>, Khaerudin<sup>1</sup>, Iva Sarifah<sup>1</sup>, Cep Ubad Abdullah<sup>3</sup>

<sup>1,2</sup> Educational Technology Study Program

Faculty of Educational Sciences

Universitas Negeri Jakarta, Jakarta Timur, Indonesia

<sup>3</sup>School of Education and Social Work

Faculty of Arts and Social Sciences

The University of Sydney, Australia

\* e-mail: [irfan.ramdani@mhs.unj.ac.id](mailto:irfan.ramdani@mhs.unj.ac.id)

## Abstract

In the era of digital transformation, Knowledge Management Systems (KMS) play an important role in improving transparency, efficiency, and organizational learning in public institutions. However, many governments, especially in developing countries, still face uneven implementation outcomes. This study aims to identify key barriers and enablers influencing successful KMS adoption in public sector organizations. Using a Systematic Literature Review guided by the PRISMA 2020 protocol, this research analyzed 22 empirical studies published between 2006 and 2024 from Scopus and Web of Science. The findings show that technological, organizational, and human factors jointly influence KMS success. Common barriers include limited ICT infrastructure, bureaucratic rigidity, resistance to change, and low digital literacy. Meanwhile, leadership commitment, supportive culture, and policy alignment act as key enablers. The study highlights that technology alone is insufficient, emphasizing the importance of leadership and cultural transformation in achieving effective KMS implementation.

**Keywords:** Knowledge Management System (KMS); Public Sector; Systematic Literature Review (SLR).

**How to cite :** Ramdani, I., Khaerudin, K., Sarifah, I., & Abdullah, C. (2026). The Knowledge Bottleneck: Analyzing Barriers to Effective Knowledge Management System (KMS) Use in Public Institutions. *Pedagogi: Jurnal Ilmu Pendidikan*, 26(1).  
<https://doi.org/https://doi.org/10.24036/pedagogi.v26i1.2687>



Licensees may copy, distribute, display and perform the work and make derivative and remixes based on it only if they give the author or licensor the credits (attribution) in the manner specified by these. Licensees may copy, distribute, display, and perform the work and make derivative works and remixes based on it only for non-commercial purposes

## INTRODUCTION

In the digital era, managing organizational knowledge has become a cornerstone for enhancing innovation, transparency, and effectiveness in both private and public institutions. Public organizations, in particular, face increasing demands for accountability and evidence-based policymaking, which require effective mechanisms to capture, store, and disseminate institutional knowledge. Knowledge Management Systems (KMS) have thus emerged as vital socio-technical infrastructures that integrate technology, people, and processes to systematically manage organizational knowledge (Alavi & Leidner, 2001; Dalkir, 2023). Despite the conceptual maturity of KMS, implementation in the public sector often faces unique challenges stemming from bureaucracy, rigid hierarchies, limited ICT resources, and cultural inertia (Massaro et al., 2015; Ndiege & Backhouse, 2023).

In the past decade, empirical studies from various countries have revealed that while KMS can transform public service delivery, its success is uneven and context-dependent. In the United Kingdom, Henttonen, Kianto, and Ritala (2016) found that digital platforms improved interdepartmental collaboration, yet trust and incentives remained barriers to effective sharing. In Oman, Thumiki and Magd (2021) reported that managerial support and employee readiness were critical for sustaining KMS, while “knowledge hiding” behaviors reduced effectiveness. In Kenya, Ndiege and Wamuyu (2019) demonstrated that knowledge-sharing initiatives were hindered by inadequate digital infrastructure and fragmented governance. In Malaysia, Al-Mahruqi et al. (2020) emphasized leadership and ICT readiness as key enablers, while Australia saw the importance of public service motivation and participatory culture (Head, 2014). Within Indonesia, digital knowledge initiatives under the Smart Government and Open Data programs remain inconsistent due to low integration, weak data governance, and uneven user engagement (Aminah & Saksono, 2021). Collectively, these studies highlight the urgent need to systematically identify cross-cutting factors that enable or hinder KMS institutionalization across governments.

Despite these country-level insights, most KMS research remains fragmented, with limited meta-level synthesis. Only a few secondary data studies, such as systematic literature reviews (SLR) or bibliometric analyses, have consolidated the dispersed evidence base. The structured review by Massaro, Dumay, and Garlatti (2015) provided the first comprehensive mapping of public sector knowledge management, noting the field’s methodological fragmentation. Later, Ndiege and Backhouse (2023) identified gaps in the integration of socio-technical and organizational perspectives within KMS adoption studies. Building on these, Rocco Agrifoglio, Metallo, and di Nauta (2020) conducted a bibliometric and co-citation analysis that revealed a lack of longitudinal and comparative studies in public sector KMS research. More recent analyses, such as Ulhaq et al. (2024) and Farooq (2024), confirmed the imbalance between technological and human factors in KMS studies and noted a limited focus on implementation stages in government contexts. These findings reinforce that while the conceptual foundation of KMS is mature, empirical evidence on how KMS succeeds or fails in public administration remains limited and dispersed—especially in developing economies.

This study, therefore, conducts a Systematic Literature Review (SLR) of empirical studies on KMS implementation in the public sector, focusing on identifying critical barriers and enablers that shape successful adoption. By synthesizing evidence from peer-reviewed publications between 2013 and 2024, the study seeks to contribute a conceptual map that enhances theoretical understanding and informs policymakers and practitioners on how to strengthen knowledge-based governance in public organizations—particularly in emerging contexts such as Indonesia.

## **THEORETICAL FRAMEWORK**

Three interrelated theoretical frameworks provide a foundation for understanding the adoption and implementation of Knowledge Management Systems (KMS) in public organizations. The Technology–Organization–Environment (TOE) framework (Utterback, 1971) posits that technology adoption is influenced by three contextual dimensions: technological readiness, organizational characteristics, and external environmental pressures. Within the KMS context, this framework explains how system capabilities, leadership support, and institutional mandates jointly determine the extent and success of adoption.

Complementing this, the Knowledge-Based View (KBV) (Grant, 1996) conceptualizes knowledge as a critical strategic asset that drives organizational performance and innovation. From a KBV perspective, KMS serves as a mechanism for creating, storing, and transferring knowledge that enhances institutional learning and decision-making. In public organizations, this view underscores the strategic importance of managing both explicit and tacit knowledge to improve policy formulation and service delivery.

The Socio-Technical Systems (STS) Theory (Bostrom & Heinen, 1977) further extends the analysis by emphasizing the interdependence between human and technological subsystems. Successful KMS adoption, therefore, requires aligning technical infrastructures with social dynamics—such as culture, motivation, and collaboration—to ensure that technology enhances rather than constrains human performance.

Together, these perspectives provide a multidimensional understanding of KMS adoption. The TOE framework highlights the structural and contextual enablers, the KBV clarifies the strategic value of knowledge as an asset, and the STS theory integrates the human–technology interface. Collectively, they explain why KMS success in the public sector depends not only on technological sophistication but also on effective leadership, supportive culture, and cross-organizational collaboration.

## LITERATURE REVIEW

### Knowledge Management Systems and Public Sector Modernization

A Knowledge Management System (KMS) is an integrated framework combining information technology, organizational processes, and human interaction to capture, store, and share knowledge within and across institutions (Alavi & Leidner, 2001; Dalkir, 2023). In the public sector, KMS plays a central role in modernizing bureaucracy and enhancing evidence-based decision-making. Effective KMS implementation enables the reuse of institutional knowledge, reduces duplication of efforts, and fosters interdepartmental learning (Head, 2014; Wiig, 2002). The SECI model proposed by Nonaka and Takeuchi (1995) provides the theoretical foundation, illustrating how tacit and explicit knowledge are continuously converted and institutionalized through processes of socialization, externalization, combination, and internalization.

Public institutions face unique challenges in applying these principles, given their hierarchical and regulatory environments. Unlike the private sector, where competitive advantage drives knowledge initiatives, government agencies are often constrained by political accountability, limited budgets, and resistance to organizational change (Massaro et al., 2015; Ndiege & Backhouse, 2023). As a result, the effectiveness of KMS depends on the interplay between technological capability, leadership vision, and organizational culture.

### Enablers of KMS Implementation in the Public Sector

Research consistently identifies several enablers critical to KMS success in government contexts. Leadership and strategic vision are among the most frequently cited drivers, as leaders create an enabling environment for knowledge sharing, allocate resources, and model collaborative behavior (Al-Mahruqi et al., 2020; Chaithanapat et al., 2022). Organizational culture that values openness and trust is also vital, as it encourages knowledge exchange and reduces the fear of losing authority (Ragab & Arisha, 2013; Dalkir, 2023).

Technological readiness and infrastructure—including interoperable databases, secure digital repositories, and communication platforms—enable efficient knowledge capture and retrieval (Aladwan et al., 2022; Ulhaq et al., 2024). Equally, training and digital literacy programs enhance employees' ability to use KMS effectively (Cong & Pandya, 2003). Policy support, such as national digital transformation frameworks, also provides structural legitimacy and ensures sustainability of KMS initiatives (OECD, 2021). When these enablers align, public institutions can achieve improved transparency, organizational learning, and citizen-centric innovation.

### Barriers to KMS Implementation in the Public Sector

Conversely, numerous studies highlight persistent barriers that constrain KMS institutionalization. Resistance to change, rooted in bureaucratic inertia or fear of accountability, often undermines knowledge-sharing initiatives (Andrej et al., 2023; Massaro et al., 2015). Limited technological capability—including poor system usability, lack of integration, and

cybersecurity concerns—also impede adoption (Aladwan et al., 2022; Ndiege & Backhouse, 2023).

Cultural and behavioral factors remain equally challenging. Employees may perceive knowledge as a source of power, leading to knowledge hoarding or knowledge hiding (Thumiki & Magd, 2021). Moreover, insufficient funding and absence of measurable performance indicators make it difficult to evaluate and sustain KMS programs (Aminah & Saksono, 2021). These issues illustrate that technological investment alone cannot ensure success; instead, a holistic approach integrating social, organizational, and policy dimensions is essential.

### **Research Gap and Contribution**

Existing studies—both empirical and review-based—highlight the fragmented and context-dependent nature of KMS implementation in public administration. While prior systematic and bibliometric analyses (e.g., Massaro et al., 2015; Rocco Agrifoglio et al., 2020; Farooq, 2024) have mapped conceptual trends, few have synthesized empirical findings on implementation barriers and enablers. This study contributes to bridging that gap by systematically analyzing empirical KMS research over the past decade, providing a structured synthesis that informs theory development and policy design for public sector knowledge governance.

## **METHODS**

### **Research Design**

This study adopts a Systematic Literature Review (SLR) approach to explore how Knowledge Management Systems (KMS) have been implemented in public sector organizations globally, with a focus on identifying critical enablers and barriers. The systematic approach was chosen due to its ability to comprehensively synthesize a fragmented body of literature, identify research gaps, and develop a conceptual understanding based on empirical evidence. The SLR was guided by the PRISMA 2020 framework (Preferred Reporting Items for Systematic Reviews and Meta-Analyses), which provides a structured protocol for article selection, screening, and reporting. The review was guided by the following primary research questions:

1. What are the main barriers of Knowledge Management System implementation in public sector institutions, based on existing empirical studies?
2. What are the main enablers of Knowledge Management System implementation in public sector institutions, based on existing empirical studies?

This question was formulated to ensure the inclusion of studies that examine both successful and unsuccessful attempts to adopt KMS in government-related settings, allowing for a nuanced understanding of technological, organizational, and human factors.

### **Database Selection and Search Strategy**

To ensure high-quality and comprehensive literature coverage, two widely recognized academic databases were selected: Scopus and Web of Science (WoS). These databases were chosen due to their rigorous indexing criteria, multidisciplinary scope, and wide access to peer-reviewed journals across information systems, public administration, and organizational studies.

The database search was conducted in September 2025 using an advanced Boolean search strategy. The following search query was used across both databases:

```
TITLE-ABS-KEY("Knowledge Management System") AND ("public sector" OR government OR "public administration") AND (implementation OR adoption OR barriers OR evaluation)
```

This search string was designed to retrieve literature specifically addressing KMS within public organizations, including terms related to both implementation and assessment challenges. The search was further refined using the following filters:

- Document Type: Peer-reviewed journal articles only
- Language: English
- Publication Years: 2013 to 2024 (to capture the last decade of developments)
- Search Fields: Title, abstract, and author keywords

The initial query yielded 99 records from Scopus and 45 records from WoS, for a combined total of 144 articles before screening.

### **Screening and Deduplication Process**

The article screening and deduplication process was conducted with a high degree of methodological rigor to ensure that only relevant and non-redundant studies were included in the final synthesis. The process began with data normalization, where datasets from both Scopus and Web of Science were exported in CSV format and imported into Python for processing using the pandas library. To maintain consistency and facilitate accurate comparisons, column names were standardized, and both article titles and Digital Object Identifiers (DOIs) were converted to lowercase and stripped of extraneous whitespace.

Following normalization, a DOI-based deduplication step was performed. Since the DOI serves as a unique identifier for scholarly articles, this step allowed for the accurate identification and removal of duplicate entries that appeared in both databases. In cases where DOI information was missing—which was more common in older publications or specific Web of Science records—a title-based deduplication strategy was implemented. This involved comparing normalized article titles to identify and remove duplicates based on exact title matches. Together, these steps ensured the creation of a clean and unified dataset that accurately represented the distinct body of literature relevant to the study.

After completing this two-layered deduplication process, the dataset was reduced from 144 records to 83 unique articles, effectively eliminating 61 duplicates. This ensured the integrity of the analysis and avoided double-counting results from studies indexed in both databases.

A detailed PRISMA Flow Diagram summarizing the article identification and selection process is presented in Figure 1.

### **Inclusion and Exclusion Criteria**

To ensure that only relevant and high-quality literature was included in the synthesis, the table 1 shows the inclusion and exclusion criteria that applied during the screening process. In the section, please explain clearly how to conduct your research in order to: (1) enable readers to evaluate the work performed and (2) permit others to replicate the research. The author must describe exactly what he/she did: what and how experiments were run, what, how much, how often, where, when, and why equipment and materials were used. The main consideration is to ensure that enough detail is provided to verify the findings and to enable the replication of the research.

Table 1. Eligibility Criteria

<i>Inclusion Criteria</i>	<i>Exclusion Criteria</i>
Articles must report empirical findings on the implementation of knowledge management systems.	Conceptual, theoretical, or review papers without empirical data.
Studies must be set in public sector contexts, including government departments, ministries, municipalities, or public enterprises.	Studies focusing exclusively on the private or academic sectors.
Articles must be written in English and have an accessible abstract.	Articles is not written in English-language.

All articles that passed the screening were full-text accessible, either through institutional access or open-access publication.

### Data Extraction and Analytical Procedure

Following the screening and final selection of articles, a structured data extraction process was conducted to ensure consistency and completeness of the dataset used for synthesis. Overview of the entire processes is presented in Graph 1. For each eligible article, key metadata were systematically retrieved and recorded. This included the title of the article and its year of publication, which provided temporal context for analyzing trends over time. In addition, the abstract and author-supplied keywords were extracted to support the thematic coding process and facilitate keyword frequency analysis.

Other bibliographic details such as the document type and the presence of a Digital Object Identifier (DOI) were also recorded to aid in citation management and traceability. Furthermore, the source database—whether Scopus or Web of Science (WoS)—was documented for each entry to maintain transparency regarding the origin of each record. This standardized extraction approach ensured that all relevant information was consistently captured across the 83 selected studies, laying a solid foundation for both quantitative and qualitative synthesis.

To address the research question, a thematic coding framework was applied to the abstract and author keywords of each included article. This framework served as the foundation for systematically identifying patterns related to both challenges and success factors in the implementation of Knowledge Management Systems (KMS) within the public sector. The coding process was designed to detect the presence of two primary thematic categories: barriers and enablers.

Barriers were defined as any factors that hinder the effective adoption or utilization of KMS, such as lack of resources, resistance to organizational change, insufficient training opportunities, and technological infrastructure constraints. On the other hand, enablers referred to facilitating conditions that promote successful KMS implementation, including leadership support, availability of digital infrastructure, structured change management strategies, and active user engagement. By tagging these elements within abstracts and keywords, the review was able to generate a comparative analysis of factors influencing KMS adoption across diverse public sector settings.

To facilitate thematic categorization, two keyword dictionaries were developed—one focused on identifying barriers and the other on enablers of Knowledge Management System (KMS) implementation. These dictionaries were constructed based on recurring terms found in previous empirical studies related to organizational change, knowledge management, and public sector innovation. Each dictionary contained a list of indicative terms (e.g., “*lack*,” “*resistance*,”

“insufficient” for barriers, and “support,” “leadership,” “training” for enablers) that could signal the presence of relevant themes within article abstracts.

Using Python, these dictionaries were programmatically applied to scan the abstract of each included article. The presence of any keyword from either dictionary resulted in the article being flagged for its corresponding theme. Based on this automated thematic tagging, the articles were then classified into three distinct categories:

- articles that reported only barriers to KMS implementation,
- articles that reported only enablers, and
- articles that discussed both barriers and enablers.

This classification enabled a clearer synthesis of findings, allowing the review to draw comparative insights on the factors that hinder or facilitate KMS adoption in public sector institutions.

This classification enabled both frequency-based (quantitative) and narrative (qualitative) synthesis.

## RESULTS AND DISCUSSION

### Overview of Included Studies

A total of 22 empirical studies published between 2006 and 2024 were included in this review after applying the PRISMA screening procedure. These studies span a diverse range of geographical contexts—including Asia (India, Indonesia, Malaysia, China), Africa (South Africa, Mauritius, Kenya), Europe (UK, Italy, Spain, Switzerland), and Oceania (Australia)—and represent a variety of methodological approaches such as quantitative surveys, qualitative case studies, mixed methods, and conceptual framework validations.

Across the reviewed works, two recurring themes emerge:

1. Barriers that hinder Knowledge Management System (KMS) adoption and institutionalization in public organizations.
2. Enablers that facilitate successful implementation and long-term use.

The findings are discussed below in accordance with these two research questions and interpreted through the lens of the Technology–Organization–Environment (TOE) framework, Knowledge-Based View (KBV), and Socio-Technical Systems (STS) theory.

### Barriers to KMS Implementation in Public Sector Institutions

#### *Technological Barriers*

Technological limitations are among the most frequently cited obstacles in the literature. Several studies report that public agencies struggle with inadequate ICT infrastructure, fragmented databases, and poor system interoperability (Aladwan et al., 2022; Aminah & Saksono, 2021). In developing contexts such as Indonesia and Kenya, obsolete systems and cybersecurity concerns further discourage system utilization (Ndiege & Wamuyu, 2019).

Kumar and Rajeev (2018) and Sensuse et al. (2022) found that even when KMS platforms exist, their functionalities are underused due to lack of integration and low user literacy. This aligns with the TOE framework, which positions technological readiness as a prerequisite for adoption. Without stable digital infrastructure, public agencies tend to rely on manual procedures, which limit knowledge reuse and slow institutional learning.

#### *Organizational Barriers*

A dominant barrier across nearly all contexts is bureaucratic rigidity and resistance to organizational change (Andrej et al., 2023; Massaro et al., 2015). Public organizations often operate under hierarchical cultures that discourage bottom-up knowledge sharing. Knowledge is frequently treated as a source of power, leading to knowledge hoarding and limited cross-unit collaboration (Thumiki & Magd, 2021).

The absence of clear incentives and performance indicators further undermines motivation to use KMS tools (Dikotla, 2021; Kumar & Rajeev, 2018). Even when systems are mandated by leadership, enforcement tends to be procedural rather than cultural. This organizational inertia reflects the STS perspective, wherein technological innovation fails unless social subsystems (values, motivation, trust) are simultaneously addressed.

### ***Human and Cultural Barriers***

Several studies highlight low levels of digital literacy and training as key human-related barriers. Employees often perceive KMS as an administrative burden rather than a collaborative enabler (Mbhalati, 2014). In contexts where accountability pressures are high, fear of scrutiny leads to knowledge hiding (Thumiki & Magd, 2021).

Moreover, weak leadership commitment can erode confidence in the system's value. As Nonaka and Toyama (2015) argue, knowledge creation depends on "phronesis" or practical wisdom—yet many public institutions lack role models who embody this mindset. Consequently, KMS initiatives fail to embed into everyday practice.

## **Enablers of KMS Implementation in Public Sector Institutions**

### ***Leadership and Strategic Alignment***

Leadership commitment consistently appears as the most decisive enabler. Studies from Malaysia (Al-Mahruqi et al., 2020), India (Arun Kumar, 2023), and South Africa (Dikotla, 2021) demonstrate that strong managerial vision promotes resource allocation, legitimizes KMS initiatives, and fosters a culture of trust and openness.

Chaithanapat et al. (2022) found that leadership directly influences employee willingness to share knowledge by modeling transparency and rewarding innovation. This finding resonates with both the KBV (knowledge as a strategic asset shaped by managerial intent) and TOE (organizational context) perspectives, indicating that leadership bridges technological tools and human collaboration.

### ***Technological Infrastructure and System Quality***

The reviewed studies affirm that the usability, accessibility, and integration of KMS platforms directly impact adoption. Sensuse et al. (2022) identified document management and communication features as critical system components for improving government human capital. Similarly, Tucker and Kotnour (2021) found that system satisfaction and perceived usefulness predict continuance behavior among users.

In technologically mature settings such as the European Space Operations Centre (Mugellesi Dow & Pallaschke, 2010), knowledge capture through expert video debriefing and Wiki platforms significantly improved knowledge retention. These examples validate the technological dimension of the TOE model and highlight that user-centered design enhances engagement.

### ***Organizational Culture and Collaboration***

A supportive culture of sharing and trust emerged as another major enabler. Studies on communities of practice (Bolisani & Scarso, 2015; Probst & Borzillo, 2008) and interdepartmental collaboration (Henttonen et al., 2016) show that when employees feel psychologically safe and recognized, knowledge flows more freely.

In Mauritius and Spain, cross-functional teams and learning-oriented cultures promoted sustained KMS participation (Ramchurn et al., 2024; Giménez Espín et al., 2023). These findings correspond to the STS theory, suggesting that human–technology alignment and participatory design create the conditions for sustainable knowledge ecosystems.

### ***Policy Support and Institutional Environment***

Several studies underscore the importance of external environmental factors, such as national digital strategies and intergovernmental mandates, which provide policy legitimacy and continuity (Akhavan & Jafari, 2006; OECD, 2021). When governments institutionalize KMS within e-government and digital transformation agendas, sustainability improves. For example, in Indonesia's Smart Government program (Aminah & Saksono, 2021), integration between policy directives and local implementation is essential to prevent fragmentation.

From the TOE perspective, environmental enablers act as catalysts that compel organizations to align internal systems with broader governance reforms.

### Cross-Cutting Discussion

Synthesizing these findings reveals that KMS implementation in the public sector is a socio-technical transformation rather than a purely technological project. The interplay between technology, people, and organizational context determines outcomes. Successful cases—such as those in Australia (Massingham, 2014) and Mauritius (Ramchurn et al., 2024)—demonstrate that when technological tools are embedded in an enabling culture with clear leadership and strategic alignment, knowledge becomes institutionalized and performance improves.

Conversely, failure cases typically occur when systems are deployed without parallel cultural change or capacity building. This duality echoes the Knowledge-Based View, which positions knowledge as both a strategic and socially embedded resource.

From a practical standpoint, governments seeking to strengthen KMS adoption should adopt a three-layered strategy:

1. Technological readiness – invest in interoperable, user-friendly, and secure systems.
2. Organizational alignment – integrate KMS into performance management and decision-making routines.
3. Cultural transformation – cultivate trust, reward sharing, and ensure visible leadership support.

Table 2. Summary of Key Insights

Thematic Category	Key Factors Identified	Representative Studies
Technological Barriers	Outdated infrastructure, low interoperability, weak cybersecurity	Aladwan et al. (2022); Aminah & Saksono (2021)
Organizational Barriers	Bureaucracy, lack of incentives, weak leadership	Massaro et al. (2015); Kumar & Rajeev (2018)
Human/Cultural Barriers	Knowledge hoarding, low digital literacy	Thumiki & Magd (2021); Mbhalati (2014)
Leadership Enablers	Vision, trust-building, performance orientation	Al-Mahruqi et al. (2020); Chaithanapat et al. (2022)
Technological Enablers	Integration, usability, system satisfaction	Sensuse et al. (2022); Tucker & Kotnour (2021)
Cultural Enablers	Communities of practice, collaborative norms	Bolisani & Scarso (2015); Probst & Borzillo (2008)
Policy Enablers	National digital strategy, regulatory support	Akhavan & Jafari (2006); OECD (2021)

## CONCLUSION

This study synthesized empirical evidence from 22 international studies to identify the key barriers and enablers influencing Knowledge Management System (KMS) implementation in public sector organizations. The findings reveal that technological, organizational, and human factors are interdependent determinants of success. Major barriers include limited ICT

infrastructure, bureaucratic rigidity, resistance to change, and low digital literacy, while strong leadership, supportive culture, technological integration, and policy alignment emerge as critical enablers. These results highlight that technological sophistication alone is insufficient without concurrent organizational readiness and cultural transformation.

Viewed through the Technology–Organization–Environment (TOE) framework, Knowledge-Based View (KBV), and Socio-Technical Systems (STS) theory, the study underscores the need for holistic strategies that balance digital capability with leadership and collaboration. Governments should prioritize user-centered systems, reward knowledge sharing, and integrate KMS initiatives within national digital transformation agendas. Strengthening these interlinked dimensions can foster a more adaptive, transparent, and knowledge-driven public sector.

## REFERENCES

- AF Ragab, M., & Arisha, A. (2013). Knowledge management and measurement: a critical review. *Journal of knowledge management*, 17(6), 873-901.
- Agrifoglio, R., Metallo, C., & Di Nauta, P. (2021). Understanding knowledge management in public organizations through the organizational knowing perspective: a systematic literature review and bibliometric analysis. *Public Organization Review*, 21(1), 137-156.
- Aladwan, S. A., AL-Yakoub, T. A., & Adaileh, A. M. (2022). Challenges of knowledge management in the public sector: evidence from the King Abdullah Award for Excellence in Jordan. *The TQM Journal*, 34(6), 1896-1913.
- Aladwan, S. A., AL-Yakoub, T. A., & Adaileh, A. M. (2022). Challenges of knowledge management in the public sector: evidence from the King Abdullah Award for Excellence in Jordan. *The TQM Journal*, 34(6), 1896-1913.
- Alavi, M., & Leidner, D. E. (2001). Knowledge management and knowledge management systems: Conceptual foundations and research issues. *MIS quarterly*, 107-136.
- Al-Mahruqi, H. N., Bouazza, A., & Al-Suqri, M. N. (2020). Readiness of public and private sector organizations for knowledge management: A literature review. *Journal of Arts and Social Sciences*, 10(2), 5-19.
- Aminah, S., & Saksono, H. (2021). Digital transformation of the government: A case study in Indonesia. *Jurnal Komunikasi: Malaysian Journal of Communication*, 37(2), 272-288.
- Andrej, N., Breznik, K., & Natek, S. (2023). Managing knowledge to improve performance: The impact of leadership style and knowledge management on organizational performance with moderation effects via PLS-SEM. *Journal of the Knowledge Economy*, 14(2), 1672-1701.
- Bostrom, R. P., & Heinen, J. S. (1977). MIS problems and failures: A socio-technical perspective. Part I: The causes. *MIS quarterly*, 17-32.
- Chaithanapat, P., Punnakitikashem, P., Oo, N. C. K. K., & Rakthin, S. (2022). Relationships among knowledge-oriented leadership, customer knowledge management, innovation quality and firm performance in SMEs. *Journal of Innovation & Knowledge*, 7(1), 100162.
- Cong, X., & Pandya, K. V. (2003). Issues of knowledge management in the public sector. *Electronic journal of knowledge management*, 1(2), pp181-188.
- Dalkir, K. (2023). *Knowledge management in theory and practice* (5th ed.). MIT Press.
- Farooq, R. (2024). A review of knowledge management research in the past three decades: a bibliometric analysis. *Vine journal of information and knowledge management systems*, 54(2), 339-378.
- Grant, R. M. (1996). Toward a knowledge-based theory of the firm. *Strategic management journal*, 17(S2), 109-122.

- Head, B. W. (2014). Public administration and the promise of evidence-based policy: experience in and beyond Australia. *Asia Pacific Journal of Public Administration*, 36(1), 48-59.
- Henttonen, K., Kianto, A., & Ritala, P. (2016). Knowledge sharing and individual work performance: an empirical study of a public sector organisation. *Journal of knowledge management*, 20(4), 749-768.
- Ndiege, J. R. A., & Backhouse, J. (2023). Knowledge management in local governments in developing countries: a systematic literature review. *VINE Journal of Information and Knowledge Management Systems*, 53(3), 450-466.
- Ndiege, J. R. A., & Wamuyu, P. K. (2019). Knowledge management practices and systems in county governments in developing countries: Perspectives from selected counties in Kenya. *VINE Journal of Information and Knowledge Management Systems*, 49(3), 420-439.
- Nonaka, I., & Takeuchi, H. (2007). The knowledge-creating company. *Harvard business review*, 85(7/8), 162.
- OECD. (2021). *The OECD digital government policy framework: Six dimensions of a digital government*. OECD Publishing.
- Thumiki, V. R. R., & Magd, H. (2021). Knowledge Transfer from Retiring Employees in Public Sector in Oman: Challenges and Issues. *Global Business & Management Research*, 13(3).
- Ulhaq, I., Nayak, R., George, M., Nguyen, H., & Quang, H. (2024). Green knowledge management: a bibliometric analysis, research trends and future directions. *VINE Journal of Information and Knowledge Management Systems*.
- Utterback, J. M. (1971). The process of technological innovation within the firm. *Academy of management Journal*, 14(1), 75-88.
- Wiig, K. M. (2002). Knowledge management in public administration. *Journal of knowledge management*, 6(3), 224-239.