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Research article

Key success factors of knowledge management systems for optimizing organizational performance: A PRISMA-based systematic literature review

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ABSTRACT

The knowledge management systems (KMS) are crucial tools for enhancing organizational performance (OP). However, systematic investigations into their key success factors (KSFs) remain limited. This study aims at identifying KSFs of KMS that impact OP. The study conducts a systematic literature review (SLR) based on preferred reporting items for systematic reviews and meta-analyses (PRISMA), considering studies published over the past 35 years (1990–2024). A total of 57 relevant studies were analyzed, yielding 100 KSFs, grouped into five categories, and 60 mediating factors (MFs) that influence the relationship between KMS and OP. Based on these findings, a conceptual framework is developed, illustrating how KMS-KSFs impact OP through MFs, offering a blueprint for the successful implementation of KMS. The findings provide significant insights for both practitioners and researchers.

1. Introduction

The unprecedented rapid growth of information systems (IS) and technology is providing organizations broader globalization facilities [1,2], advocating knowledge resources as the key to production processes [3,4], competition [5,6], and organizational success [7,8]. Organizational success refers to the organizational goal achievement mediated through organizational performance (OP). The move to a knowledge-based economy has increased the demand for workers skilled in advanced thinking to solve complex workplace problems [9–11]. As such, the creation and maintenance of knowledge are closely tied to how individuals and teams operate [12]. In this context, knowledge is regarded as the only truly useful organizational strategic resource in the knowledge-intensive economy [13] offering organizations a source of value creation and competitive advantage [5,6,14–17]. Knowledge management (KM) is therefore essential to become successful [5] through accelerating OP causing organizations to invest in KM and knowledge

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management systems (KMS) [18].

KMS, the multifaceted technological tools that actively espouse KM action to create, learn, store, share, transfer, utilize, and disseminate knowledge [19–22], is viewed as an enabling technology for a successful and productive KM that manages organizational knowledge [6,23]. It is regarded as the pond of knowledge within the organization [24], which transforms into such a tool for communication that connects experts and information seekers [22]. As a result, KMS is being adopted by organizations with the expectation that it would boost their effectiveness, efficiency, competitiveness, and sustainability [3,4,16,24–26], and high-quality service [27].

KMS is also imperative for ensuring resource and technology effectiveness, developing knowledge-sharing strategies that are accessible to all organizational operators, and supporting managers in their decision-making processes [18,28] to retrieve knowledge at the perfect place, time, and by the appropriate person [24,29]. Thus, by facilitating process optimization, the innovation tools employed by KMS also help the company find innovative and long-lasting organizational models that improve OP and provide a competitive edge [20,27,28,30,31].

The organization's ability to successfully deploy KMS depends on a number of factors [15,32]. Using evaluation and classification of effects, organizations use key success factors (KSFs) to attain their goals [32]. KSFs are prerequisite for individuals, groups, or organizations to compete effectively in their respective markets. [33]. Identifying KMS-KSFs is essential for successful KMS implementation that plays a critical role in achieving OP. Therefore, the primary objective of this study is to identify and analyze the KSFs that influence KMS implementation success and their contribution to enhancing OP. By focusing on KMS-KSFs, the study aims to develop a framework that shows how these factors affect KMS success and, ultimately, OP. Furthermore, the research aims to add value to the international organization for standardization (ISO) 30401 standard, offering insights into how KMS practices could be improved within the context of this framework. ISO 30401 provides a globally recognized framework for establishing, implementing, maintaining, and improving KMS within organizations. By aligning the identified KSFs with this standard, the study supports practitioners in designing more effective, standards-compliant KMS implementations.

The scope of this study is specifically centered on exploring the relationship between KMS and OP, with particular emphasis on identifying critical factors that ensure effective KMS implementation. Furthermore, this research seeks to contribute to the literature on KM by providing a structured understanding of KMS impacts on organizational outcomes. Additionally, based on a comprehensive review of the literature and findings, this study proposes a future research agenda, which is beneficial for further exploration of KMS effectiveness.

This article is structured systematically. At the beginning, an introduction is given and immediately afterward, the theoretical background is discussed in the second section. The next section presents a review of the extant literature. The methodology of this study is described in the fourth section. The fifth section then presents the results and the subsequent analysis. This section also displays all the identified KMS success factors which influence OP and examines the significant findings. Then the result is depicted in an integrated framework based on the systematic literature review (SLR) results. Subsequently, in the sixth section, the discussion and implication are presented where theoretical and practical contributions, lessons learned, research limitations, and future research programs are discussed. Finally, the study concludes with a summary of key findings and implications.

2. Background

2.1. Knowledge management processes

Individual and group knowledge processes are combined to form organizational processes [34]. KM processes (KMPs) include generation, identification, acquisition, refinement, integration, storage, sharing, dissemination, comprehension, and usage of knowledge [35]. KM fundamentally focuses on what managers do to get the goals accomplished, encourages people to help, and establishes social norms that encourage KM conquest. Social norms, on the other hand, include networks of experts and professional communities who adhere to and practice of the KM standard operating procedures. Although knowledge first originates in an individual's mind, it must be transferred through social groups, teams, and networks [36].

Organizational structure and culture play a significant role in predicting how well KMPs perform [37]. KMPs are predictors for organizational creativity that derive strategic and economic benefits. Operationally, the framework for knowledge combination and exchange is seen through the lens of KMS process capabilities for acquisition, conversion, application, and protection. Additionally, the interaction of these variables results in a positive correlation between process competency and organizational effectiveness [25,38]. At the same time, the implementation of diverse IS can be enhanced through the effective use of KMS processes [30].

2.2. Knowledge management systems

The KMS is an IS dealing with overseeing organizational knowledge [34] and a method for generating and sharing value from an organization's intellectual property [4,25,39,40] requiring huge IT infrastructure [41]. It is the name of an IT-based system or a centralized repository or an IS and/or managerial technique created to assist and improve organizational processes for organizing, producing, storing, disseminating, and using knowledge, as well as sharing explicit knowledge with staff and consumers [16,21,34]. KMS is built on a variety of IT applications, including data warehousing, data mining, enterprise information portals, document management systems, groupware, decision support systems (DSS), intranets, lotus notes, search engines, e-mail, content management systems, and collaborative applications [42]. Mohammad et al. [43] highlighted that integrating knowledge graphs and semantic technologies significantly enhances KMS by enabling semantic search and intelligent recommendations, despite challenges like

scalability and data privacy exist. Seghroucheni et al. [44] demonstrated that artificial intelligence (AI) and natural language processing techniques effectively support tacit-to-explicit knowledge conversion in KMS, with each method offering distinct advantages though having some limitations.

According to Jennex [45]'s study, KMS is crucial for organizational success. In practice, KMS translates theoretical concepts into reality and supports all factors of the knowledge architecture [46]. KMS assists corporate KMPs in a variety of ways [13] by employing various IT tools and capabilities acting as a KMS evaluation benchmark and lead to a variety of KM support models that go beyond the traditional approaches of storing and retrieving coded knowledge [34,38,47]. KMS serves as a helpful repository for supporting knowledge, enabling the extensive technical memory of organizations to "live on" across staffing and system changes [48]. Thus, organizations desire to implement it [49] and industry-wide interest in KMS is quite high [21].

However, the expense of deploying a brand-new KMS is one obstacle that many organizations encounter [48]. While Ali et al. [5] underlined the importance and prospects of KMS in public sector organizations, Boella et al. [50] developed Eunomos, a legal document and KMS for the Web, to improve the work of law firms, legal scholars, and in-house legal departments in financial institutions and public sector organizations. The idea offers a viable economic opportunity because it helps control expenses while enabling wider coverage.

2.3. International organization for standardization knowledge management systems requirement

The incorporation of KM and KMS into the ISO 9001:2015 and 30401:2018 standards enhances the credibility of KMS research, design, and applications [51,52]. The ISO 30401:2018(E) [knowledge management systems-requirements] standard is specifically designed to provide a standardized framework that organizations can use to develop, implement, and sustain their KMS in a systematic and consistent manner. This standard establishes a unified language that facilitates effective communication and understanding among stakeholders, while also setting clear benchmarks for auditing and accreditation [53]. Crucially, ISO 30401 standards offer organizations the flexibility to design and implement KMS that align with their specific strategic objectives and operational contexts. This flexibility is embedded in the standard itself, which emphasizes that organizations may tailor their approach as long as they can justify it during audits and accreditation processes [53]. Such adaptability encourages innovation and responsiveness to dynamic business environments, while still ensuring compliance with internationally recognized principles of effective KM [54]. The standard also emphasizes the importance of integrating KMS with broader business processes and objectives, thereby encouraging continuous improvement and alignment with organizational strategy [51–53,55].

KSFs serve as the foundation that links KMS standards, systems, and stakeholders. By meeting these KSFs, organizations ensure that their KMS not only complies with ISO 30401 requirements but also delivers tangible benefits in terms of operational efficiency, knowledge sharing (KS), and overall performance. This alignment between KMS design, organizational culture, and ISO standards helps create a robust framework that supports long-term success [55].

2.4. Key success factors of knowledge management systems

Several factors affect the success of KMS. According to Cocca et al. [56], identifying KMS requirements entails specifying the key factors and functions necessary to support effective knowledge acquisition, sharing, and utilization within an organization. The KSFs are components that motivate or facilitate users in utilizing the KMS to efficiently carry out KM tasks [45]. KMS-KSFs refer to the critical enablers or preconditions that drive the successful implementation and effective use of KMS.

There are a number of reasons why it is important to comprehend the factors that contribute to a successful KMS deployment [33]. KMS implementation often fails because employees are hesitant to use the systems for sharing knowledge [57]. Mmatloa and Venter [58] utilized critical social heuristics to investigate factors affecting user adoption of a KMS in an organization, revealing that issues related to motivation, control, knowledge, and legitimacy hindered effective use. They proposed guidelines to enhance stakeholder engagement and system utilization, aiming to maximize the system's benefits.

Though challenging, a significant step toward a widely applicable validation of KMS would be made if KSFs could be identified [59]. Thus, the likelihood of failure might be reduced by being aware of the KSFs for KMS deployments. In this way, having a deeper awareness of the factors required to KMS success is only beneficial for organizations, but inappropriate factors prevent the required performance from being achieved. Therefore, creating KSFs for KMS requires a great deal of caution [19].

2.5. Organizational performance

OP is needed for organizational success and sustainability, especially in today's highly competitive business environment [60]. Measuring OP is therefore necessary for organizations to assess their effectiveness in achieving strategic goals [61]. Thus, OP refers to the effectiveness of an organization in achieving its goals, measured through financial outcomes, customer satisfaction, operational efficiency, and employee engagement [62,63]. It is multifaceted, encompassing both financial and non-financial dimensions, which can be assessed through various frameworks: financial performance, market performance, and shareholder return; three key outcomes identified by Richard et al. [63].

Kleist et al. [59] further categorized performance indicators of KMS into two levels: technical infrastructure capabilities and overall OP. These dimensions collectively illustrate how KMS impacts both operational and strategic goals within an organization. The knowledge-based view underscores the role of knowledge in enhancing an organization's financial success and competitive edge [64]. In the case of financial OP, metrics such as return on investment, revenue, and profit margins are typically used, representing tangible

rewards [7]. Non-financial performance, including customer loyalty, business growth, and employee experience, further enriches OP measurement [32,65]. For example, implementing accounting KMS in the UAE organizations positively influences both financial and non-financial performance, thereby fostering overall organizational innovation [66]. In this current study, we acknowledge the framework on OP measurement proposed by Richard et al. [63], along with additional relevant literature, to guide our research, ensuring alignment with established best practices in OP measurement.

2.6. Knowledge management systems framework

KMS frameworks outline the key factors and their interrelationships while offering a structure to be considered during the design and implementation process [17,23]. Gottschalk [35] depicted four stages model of KMS. *General IT* support *for knowledge workers* is the initial phase which covers email, spreadsheets, and word processing. The second level consists of *knowledge source information* specifically details about who knows what within and outside the organization - which is stored in an IS. However, the actual knowledge individuals possess is not captured by system. A corporate intranet is a typical example of this level [35]. The third stage consists of *knowledge-representing information* where knowledge workers are aware of what is stored in system. A database serves as an example. *Information processing* is the fourth and last stage. An IS analyzes conditions using information, here expert systems serve as a common demonstration [35].

Various scholars developed KMS frameworks, such as Jan and Contreras [67] proposed a KMS success framework for doctoral students. Evangelou and Karacapilidis [68] proposed a framework of incentives based on positive and negative reinforcement, which serve as catalysts for the knowledge-sharing process. Jia et al. [42] developed a KMS framework with components that may serve as knowledge extractors, knowledge servers, and knowledge managers for crisis management in the travel and tourism sector. However, none of these frameworks holistically focus on KMS-KSFs. Thus, although research on KMS is growing [57], there remains a lack of studies specifically focused on identifying the KSFs that drive the extensive use of KMS applications [15], highlighting the need for a detailed investigation that synthesizes insights from prior studies.

2.7. Related studies

Some researchers worked on review papers for finding KMS-KSFs in an integrated manner and formulated framework based on their findings. Islam and Widen [69] conducted a bibliometric study on KMS from 2000 to 2020, however they concentrated on studies only published in VINE Journal of Information and Knowledge Management Systems. Akhavan et al. [70] studied on six organizations' KSFs that affect KMS. In addition, Jackson et al. [71] investigated managerial factors associated with KMS implementation. Ayatollahi and Zeraatkar [72] and Ali et al. [57] identified KMS-KSFs in the healthcare organizations while Huang and Yuan [73] stated that KM and KMS are gaining wide attention within the healthcare community. Hung et al. [41] found seven KSFs of KMS in pharmaceutical industry and Zenouz et al. [74] studied on the KMS impact on food industry. Ericsson and Avdic [75] devised a KMS acceptance model while Owlia [32] studied the quality aspects of KMS and Khalifa et al. [76] worked on contingency factors for KMS success affecting OP [77]. Suh and 설진영 [78] studied on the factors influencing the depth and extent of KMS dissemination in Korean businesses. Darmawan et al. [79] dealt with factors impacting KMS success for smart regency mobile-apps service. Moreover, Dehghani and Ramsin [80] introduced an evaluation framework that offers a thorough set of criteria for assessing the general, domain-specific, and context-specific aspects of KMS development methodologies. This framework allows KMS developers to choose the methodology that aligns most effectively with their specific needs based on the evaluation outcomes. Additionally, Agnes et al. [8] and Júnior et al. [81] worked on the use of KMS and its critical success factors (CSFs) for SMEs, which plays a vital role in the country economy [82]. Besides these studies, through compiling a database of 46 papers published over the past three decades (1990–2020) for their bibliometric analysis, Di Vaio et al. [28] studied the corpus of writing on digital innovation in KMS to understand how it promotes new business models by maximizing new knowledge and its role in corporate governance. Although, KMS is considered as a vital tool for enhancing OP, instead, little research breaks down the effects of KMS on OP in relation to KSFs holistically. From this perspective, the current study is carried out.

However, each of the studies has some limitations, which the current study covers well. Since the current study adopts a holistic approach to identify KMS-KSFs that impact OP, it covers gaps found in Akhavan et al. [70]'s study of limited number and industry, Jackson et al. [71]'s scope of managerial factors only, Ayatollahi and Zeraatkar [72] and Hung et al. [41]'s studies on a single industry only. Greco et al. [83] worked on developing a KMS framework that focus only on how to select KMS in business context. What's more, there is a dearth in studies that focus on a systematic framework of KMS-KSFs. Thus, the current study is conducted in order to bridge the gap in the existing literature in this specific scope.

2.8. Theoretical foundation

In strengthening the theoretical foundation, this review integrates insights from the resource-based view (RBV) and dynamic capability (DC) perspectives. The RBV posits that a firm's strategic advantage stems from the internal resources it controls-such as organizational knowledge and IT capabilities-which can be leveraged to maintain superior performance [34,76,84]. By applying RBV principles, this study emphasizes how a well-designed KMS can align with and enhance these critical internal resources.

DC theory complements the RBV by highlighting the importance of organizational agility and the ability to adapt to the changing environments. DC involves continuously reconfiguring organizational resources and processes to seize new opportunities and counteract threats [84,85]. Within this framework, the KMS serves as a critical enabler, fostering a culture of KS and innovation while

improving the organization's responsiveness to emerging challenges.

By incorporating both RBV and DC perspectives, this paper provides a more comprehensive theoretical backdrop. These frameworks not only explain the critical linkages between KMS and OP but also guide managers in crafting KM strategies that sustain long-term competitiveness.

3. Literature synthesis

Sein-Echaluce et al. [86] opined that any KMS would be able to change along with the knowledge it holds and adjust to changes in the organization. KMS offers improved knowledge access and visualization, increased flexibility in sharing practices, and enhanced decision-making capabilities [87]. Thus, it assists in achieving organizational objectives [68,77]. Xu and Quaddus [49] studied on the intention to adopt KMS and the dissemination process and found that both are highly driven by the perceived usefulness, which is in turn significantly influenced by disparate factors. This phenomenon is also advocated by Hung et al. [41] that the application and acceptance of different IS and IT, specifically KMS are thought to be greatly influenced by multi-dimensional factors.

DeLone and McLean's [88] IS success model highlighted key success metrics, including system performance, information quality, user satisfaction, user adoption, and organizational impact. Steensma et al. [89] used a variety of research on the effectiveness of various types of IT to construct the KMS-KSFs. IT is required for projects encompassing a vast array of interconnected data, information, and knowledge for effective coordination [87]. Halawi et al. [16] emphasized that technology plays a vital role in the successful implementation of a KMS. Training and performance-based activities also bridge the gap between IT inputs and OP [77,90]. Thus, a pure technological solution would not ensure the success of KMS unless organizational viewpoints and the people's perspectives within the organization are also considered, even while IT is a KSF in building KMS in an organization [49,91]. Based on the findings of AlGhaithy and Al-Busaidi [92], individual and organizational antecedents positively influence knowledge residing in KMS, while technological antecedents have a negative impact. This phenomenon suggests that several technological and sociological factors are necessary for the deployment of a successful KMS [33]. In consequence, an organization should understand that IT is just one way to promote knowledge, and metrics like access to the knowledge base or the number of postings may not accurately reflect employees' knowledge-sharing behaviors [1].

Halawi et al. [16] suggested that an organization's competitive strategy plays a role in shaping its KMS strategy. Truly patient-centered approaches to care delivery through KMS are strengthened by incorporating process-oriented thinking during both the planning and implementation phases [93]. One of the KMS-KSFs is encouraging users to actively engage with the system [6]. According to Chang et al. [94], clinical KMS has six KSFs, including software and hardware for the system, knowledge quality, system quality [32,95], organizational aspects, user satisfaction, and policy concerns.

Giannakopoulos et al. [96] presented NAVMAT, an AI-supported KMS designed to record and categorize material failure incidents in naval contexts, aiming to enhance decision-making and KS among naval engineers and operators. KMS system quality is an important factor in the success of KMS [15,97], while knowledge quality, user commitment, usage, and user satisfaction have a substantial impact on the KMS success [15]. Evangelou and Karacapilidis [68]'s framework offers a structured and well-documented list of factors closely tied to the requirements analysis phase. By jointly considering both social and technical aspects, it helps organizations enhance their awareness and understanding of the social implications stemming from investments in IT aimed at re-engineering their KS processes [68]. As a result, organizations should recognize intellectual capital and assign people to projects based on their potential to learn and explore rather than solely on their current knowledge. KMS should promote dialogue among individuals instead of merely directing them to repositories, as it's impossible to capture all expertise in databases; therefore, technology should focus on enhancing communication [39]. KS in KMS is more frequently used by those who are younger, have more education, and have used KMS for a longer period of time. Experienced KMS usage has the biggest impact on the KS's intended behavior. The findings demonstrate the importance of how behavioral, organizational, cultural, and psychological factors affect knowledge workers' performance in the KMS, with KMS reward systems enhancing users' engagement in KS [98]. The success of KMS, hence, is significantly correlated with social interaction [89]. Research by Lai et al. [99] emphasized the importance of strategic alignment with organizational culture, which positively influences KMS performance. Therefore, the success of KMS is dependent on a number of factors, such as a knowledge-oriented culture, organizational and technical infrastructure, management support, a clear vision, a degree of process orientation, substantial motivational aids, and numerous channels for knowledge transfer, a link to economic return, and a common knowledge-structure [21]. Relative advantage, complexity, IS maturity, scale, support from senior management, champion, and competitive pressure all have an impact on both the extent and the depth of KMS diffusions [78].

4. Methodology

There are some approved methods for conducting studies by reviewing the literature, for example bibliometric analysis [100], meta-analysis [101], preferred reporting items for systematic reviews and meta-analyses (PRISMA) [101–103]. The application of bibliometric analysis in business research is still in its infancy and is still in the development stage. It is useful in dealing with a high volume (requiring thousands, not necessarily below hundreds) of scientific data quantitatively. Lack of a trustworthy manual for bibliometric analysis is a major problem for business academics in a thorough yet intelligible manner. While meta-analysis and PRISMA are helpful in both quantitative and qualitative review studies [100,103], the results of a meta-analysis must be statistically analyzed using methods from many relevant studies of different datasets [104]. Though PRISMA based analysis is basically developed for medical studies [103], it is followed in this current study. Because, PRISMA based SLR, as opposed to other approaches, uses a reproducible, scientific, and open production process [104].

Thus, we employ an SLR method following PRISMA guides of Page et al. [103] to identify the KMS-KSFs in accelerating OP in the current scope of this study. Among other methods, SLR is a proven and prominent technique [105]. SLR is a good, reliable, and accurate procedure and approach that might be used to track down and assess all ongoing research on a certain question, topic, or area [106]. An SLR approach helps to systematically trace back the extensions of a problem assuming replicable pathways [101]. It makes use of explicit and systematic approaches to lessen the possibility of bias during the search, identification, assessment, synthesis, analysis, and summary of studies [104]. According to Petticrew and Roberts [105], SLR is a review that aims to locate, evaluate, and thoroughly synthesize all pertinent studies on a particular subject. In contrast to individual studies that contribute to a systematic review, which are regarded as primary studies, it is thought of as a secondary study when it comes to address research issues [106]. In line with best practices, we followed the guidelines outlined by Marzi et al. [107], which emphasize the integration of studies' analysis, synthesis, and theory development to ensure a robust and comprehensive review process.

Compiling all pertinent works and articles that satisfy pre-established inclusion criteria is helpful to properly answer a certain research question [104]. To do so, there are trustworthy guidelines for conducting an SLR [100]. When the guidelines are followed properly and with the least amount of mistakes, the research might yield reliable results and recommendations that might direct policymakers and scientists to choose the right course of action [104]. According to the three-level SLR standards proposed in software engineering by Kitchenham [106] and Kitchenham and Charters [106], this research adheres to (i) planning the review, (ii) conducting the review, and (iii) reporting the review (see Fig. 1).

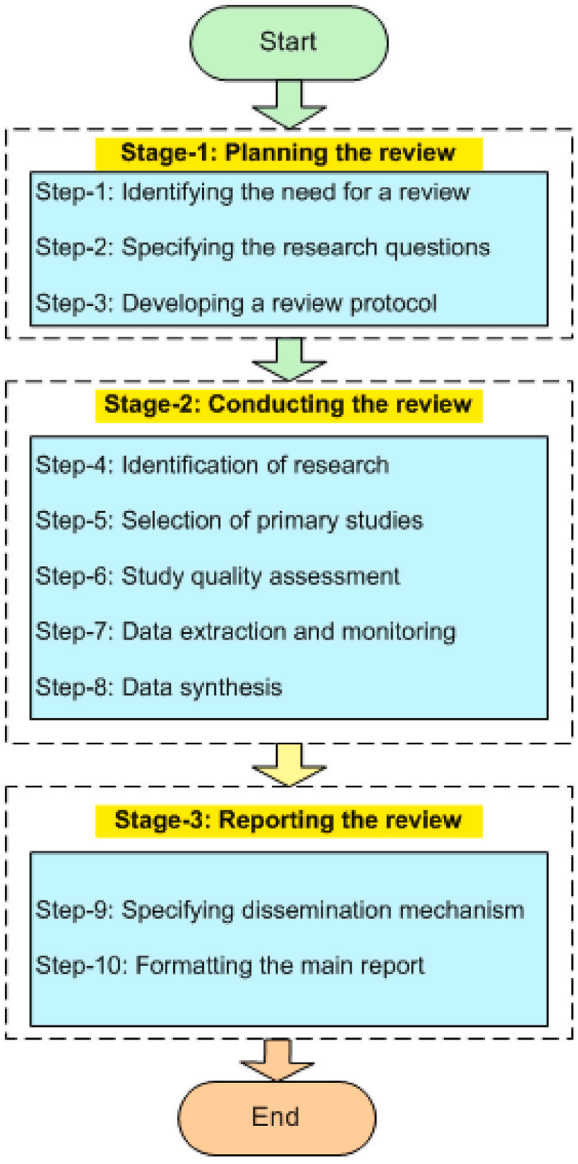

Fig. 1. SLR process map.

4.1. Planning the review

The planning phase involves determining the necessity for the review, creating the research questions, outlining the search strategy, and articulating the review process. These tasks help formulate the research questions that provide the review with a useful methodology to conduct the review process [106].

Step 1: Need for the review

Today, organizations are quite concerned about failure in implementing a KMS [14,19,83,108]. Several obstacles hinder KMS implementation, which causes it to fail [14]. Thus, understanding the KMS-KSFs is helpful because it equips researchers and practitioners with the fundamentals of creating a successful KMS [45]. As a result, the implementation risk is decreased by recognizing KMS-KSFs [14]. Such that organizations' knowing and underscoring the KSFs that critically influence the KMS is of decisive importance for success from an organizational perspective [5,76]. This phenomenon urges the need for devising an appropriate framework that would be a fruitful alternative to removing impediments in deploying and managing KMS where stakeholders know all the possible success factors. Because in today's dynamic world, KM is not imagined without KMS, which in turn impacts OP that is advocated by Jackson et al. [71].

Step 2: Research questions

This SLR answers the four research questions that are generated in accordance with the research objective mentioned in the introductory part.

RQ1. Considering its connection to OP, which studies regarding KMS-KSFs have already been researched and what scientific conclusions have been made?

RQ2. What are the KSFs identified that affect the successful implementation of the KMS in organization impacting OP?

RQ3. What MFs are significant between KMS and OP?

RQ4. How and to what degree does the finding provide additional assistance for organizations trying to apply the ISO 30401 standard?

Step 3: Review protocol

The research strategy serves as the precise road map for choosing the best research already published. SLRs are executed based on a predefined searching process to select the literature on the study questions. The research strategy strives to find elementary studies by exploring critical terms or indexes in the SLR.

Breaking the study questions down into distinct terms is the most common way to find the targeted studies. Then synonyms, acronyms, and spellings are used. Further terms could be reached through subject titles used in databases and publication repositories. Then high-level search strings are generated using Boolean ANDs and ORs [106]. Conducting the review process in next section provides information about the procedure of conducting the review, involving the sources of the literature, inclusion-exclusion criteria, quality assessment process, and data extraction and synthesis utilized in this SLR.

4.2. Conducting the review

According to Zhou et al. [109], the most obvious and dangerous validity warnings are the abandonment of relevant primary studies (both theoretical and empirical), which occur due to poor search terms, inappropriate search methods, limited time, biased selection, errors in the original studies, or lack of access to certain databases. The intent of practicing the research method is to circumvent bias [109] in the search phase as recommended by Jalali and Wohlin [110].

Step 4: Research identification

This article adopts the database mining process in the search strategy of Jalali and Wohlin [110]. Sources include journal databases, electronic search engines, digital archives, conference proceedings, and old literature [106]. To ensure comprehensive retrieval of relevant studies that align with the research objectives, a structured search strategy was employed. The search terms used included: "knowledge management system", "knowledge management", "key success factor", "critical success factor", "organizational performance", "factor", "variable", "process", "KMS impact". These terms are coupled with Boolean operators AND/OR, and different spellings such as "organization" and "organisation" are taken into account for regional differences in terminology. Additionally, a free text search was conducted to identify articles that might not have used the specific keywords but were still relevant to the research topic. This approach enabled us to capture the most pertinent studies even when alternative terminology was employed by authors. Again, these terms vary according to database search criterion, ensuring that the methodology was tailored to each database's indexing and search capabilities. This process was carefully monitored to ensure the inclusion of the most relevant studies that align with the SLR's objectives.

The following criteria were used to select studies for inclusion in the SLR.

1. Language: Only papers published in English were considered. Papers written in languages other than English, even those with an abstract available in English, were excluded from the findings of this review. However, non-English papers were still reviewed for background literature and contextual understanding.
2. Publication Timeframe: Studies published between 1990 and 2024 were included. The year 1990 was selected as the starting point, as the first article on KMS was published before 21st century, marking the beginning of KMS research. This time period ensures the certainty of not omitting any papers within the scope of this paper.
3. Subject Focus: The primary focus of the study must be on the success factors influencing the implementation and effectiveness of KMS in enhancing OP. Only papers that directly address these factors and their impact on OP were included.

Studies were excluded based on the following criteria.

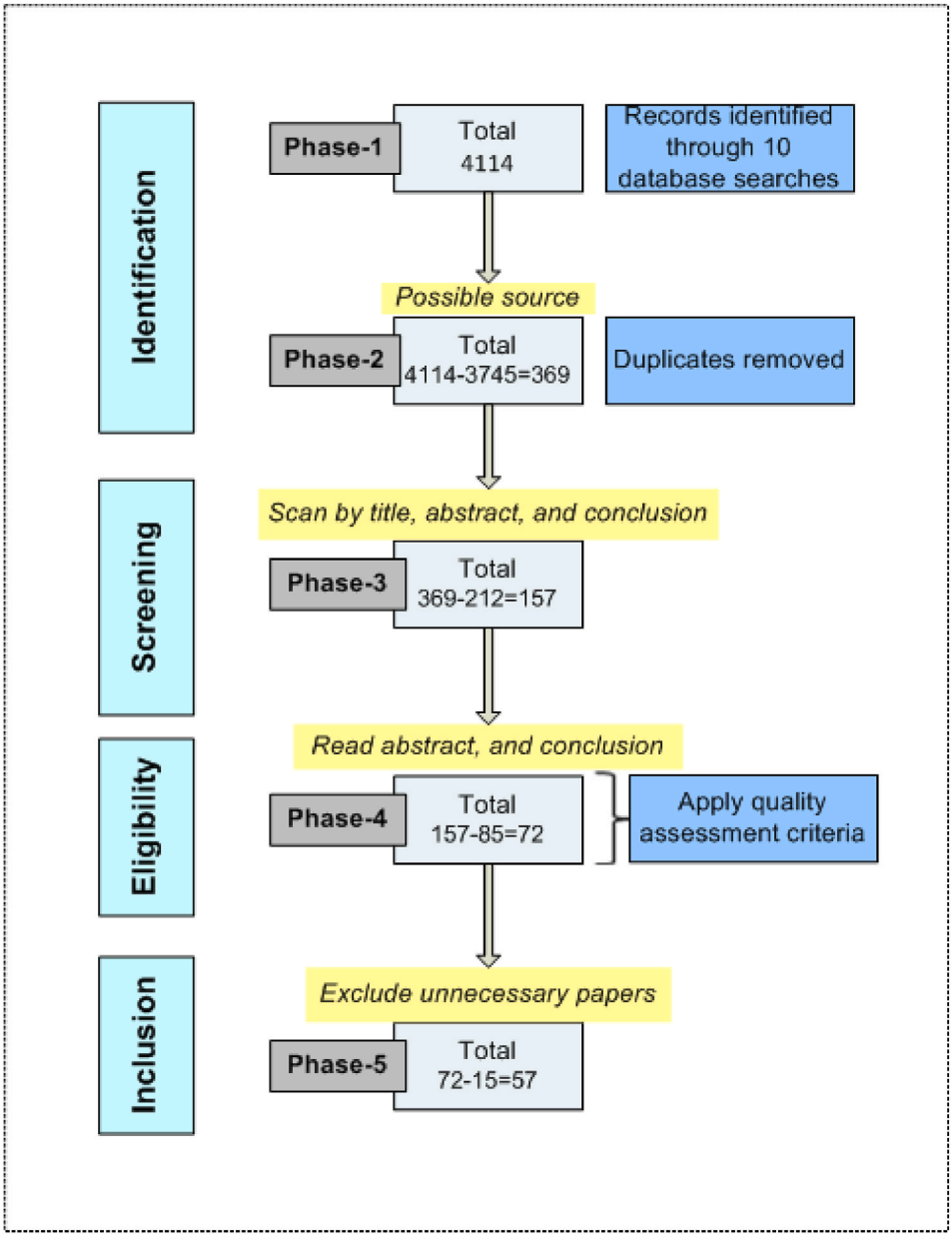

Fig. 2. PRISMA flow diagram and selection process.

1. Language: Papers that were not published in English were excluded from the SLR.
2. Publication Period: Studies published prior to 1990, as they fall outside the scope of the review, were excluded.
3. Relevance: Papers that did not focus specifically on the success factors related to KMS or their impact on OP were excluded. Studies that addressed broader topics unrelated to KMS success or OP were not considered.
4. Study Type: Papers not involving empirical research (e.g., opinion pieces, theoretical papers without a clear application or empirical data, and conference abstracts) were excluded from the analysis. However, a few full-text conference papers and book chapters were included, provided they were relevant to the study objectives and published by reputable academic publishers.
   Step 5: Selection of primary studies

Initially, 4,114 potential studies were identified. After removing duplicates and screening out unrelated articles, 369 full-text studies were assessed for eligibility, which were included for further analysis. After eliminating 212 studies that did not meet the inclusion criteria, 157 remained. Again, after reading abstracts and conclusion, 85 papers are omitted and 72 kept. Subsequently, omitting 15 papers and remaining 57 pertinent papers are finally included in this analysis. Fig. 2 illustrates the search procedure, the outcomes, and the article selection procedure. Although this paper may not cover all existing studies on the KSFs of KMS, the reviewed literature shows that many of the same KSFs are consistently identified across multiple studies. This notion reinforces the validity of the study by confirming that the exclusion of certain papers does not compromise the study's comprehensive nature.

Although Fig. 2 and Table 1 illustrate 10 publishers and platforms from where the selected papers were obtained, widely recognized databases such as Web of Science and EBSCO were not directly included in our search strategy. The 10 databases we selected

Table 1
Systematic literature survey from scholarly archives based on the search string.

Database	Search String	
Scopus	Search query	(SRCTITLE (knowledge AND management AND system) AND ABS (success AND factor AND organizational OR organisational OR performance OR kms OR impact)) AND PUBYEAR >1990
	Number of papers	62
Science Direct	Search query	Term: success factor, Title, abstract, keywords: "knowledge management system" OR "factor" OR "organizational performance" OR "organisational performance", Title: knowledge management, Year: 1990–2024
	Number of papers	270
Springer	Search query	'knowledge AND management AND system AND "organizational performance" AND (success OR factor OR variable OR process)' within 1990–2024
	Number of papers	299
Emerald	Search query	(content-type:article OR content-type:book-part OR content-type:"case study") AND (knowledge management system AND (title:"knowledge management") AND (abstract:"factor") AND (abstract:"organization") AND (abstract:"performance"), year: 1990–2024
	Number of papers	50
IEEE	Search query	("Full Text & Metadata":knowledge management system) AND ("Publication Title":knowledge management factor) AND ("Full Text Only":key success factor) OR ("Full Text Only":critical success factor) AND ("Abstract":organizational performance) OR ("Abstract":organisational performance) AND ("Full Text Only":variable) AND ("Full Text Only":process) AND ("Full Text Only":KMS impact) Filters Applied: Conferences, Journals, Books, Year: 1990–2024
	Number of papers	640
Wiley	Search query	"knowledge management system" anywhere and "knowledge management" in Title and "success factor variable process" anywhere and "performance" anywhere Applied Filters, Year: 1990–2024
	Number of papers	510
Taylor & Francis	Search query	All: knowledge management system] AND [Publication Title: knowledge management] AND [Abstract: factor] AND [All: performance] AND [All: impact] AND [Publication Date: (January 01, 1990 TO 12/31/2024)
	Number of papers	179
ACM Digital Library	Search query	Abstract: knowledge management system] AND [Title: knowledge management] AND [Full Text: key success factor] AND [Full Text: critical success factor] AND [Abstract: organizational performance] AND [Title: factor] AND [Full Text: kms impact] AND [Publication Date: (January 01, 1990 TO 12/31/2024)
	Number of papers	104
Research Gate		"knowledge management system key success factors affecting organizational performance", types: articles, literature reviews, books, conference papers, custom range: 1990–2024, sorting: sort by relevance, type: all research
	Number of papers	1000
Google Scholar	Search query	"knowledge management system key success factors affecting organizational performance", custom range: 1990–2024, sorting: sort by relevance, type: any type
	Number of papers	1000

comprehensively cover the relevant literature on KMS-KSFs. Many of the journals indexed in Web of Science and EBSCO are also indexed in our chosen databases, particularly those hosted by reputable publishers. Therefore, despite the exclusion of Web of Science and EBSCO, the key literature relevant to our study has been adequately captured through overlapping content coverage. This ensures that the exclusion of these databases does not compromise the completeness or reliability of our literature review. Therefore, we believe this exclusion does not introduce substantial selection bias. Table 1 shows the search string for reputable scientific databases and the corresponding search results.

The databases that were used for conducting this study, the first paper, which covered KMS-KSFs found in 1999; as a result, this study considers papers published in 1990 till 2024. The number of articles and the proportion of publications per year are shown in Fig. 3.

Step 6: Quality assessment

To ensure an objective evaluation, we employed a rating scale based on the SCImago journal rank (SJR) indicator. The SJR is a recognized metric that assesses journal prestige by combining citation counts with the influence of the citing journals. This scale is divided into four quartiles: Q1: The most prestigious, reflecting the top-tier journals, Q2: High-quality but less prestigious than Q1, Q3: Moderate quality, Q4: The lowest quality within the SJR framework. If a publication did not appear in the SJR database, we considered the publisher's overall reputation as an alternative criterion. For sources not listed in SJR or associated with a well-known publisher, we assigned a provisional "Q5" rating. This additional category allowed us to maintain inclusiveness while ensuring that such studies were evaluated cautiously before inclusion.

Importantly, the ratings were based on the publication's SJR status at the time of publication, not the current year's SJR data. Moreover, we prioritized subject-specific ratings relevant to management information systems and closely related fields such as IS, computer science, and information engineering. This ensured that the evaluation reflected the quality and relevance of the journals most pertinent to the research domain.

Step 7: Data extraction

To avoid selection bias, primarily we evaluate the titles and abstracts of the selected publications. When differing results emerged, they were reconciled through subjective judgment based on the researchers' expertise and a thorough review of the study context. When evaluating the abstracts, studies are selected that have explicitly discussed influencing factors on the success of the KMS. During the data extraction phase, we gathered comprehensive information including the studied KSFs, authorship, publication year, author's country of origin, research topic, applied technique, description of the findings, and reputation of publisher. These data points were critical in building a detailed profile of each study and determining its relevance and quality for the SLR. To support the development of the KMS-KSFs framework, a structured factor categorization and coding system was used. This approach helped organize and group similar factors, allowing for a clearer understanding of how they collectively influence OP via the MFs.

Step 8: Data synthesis

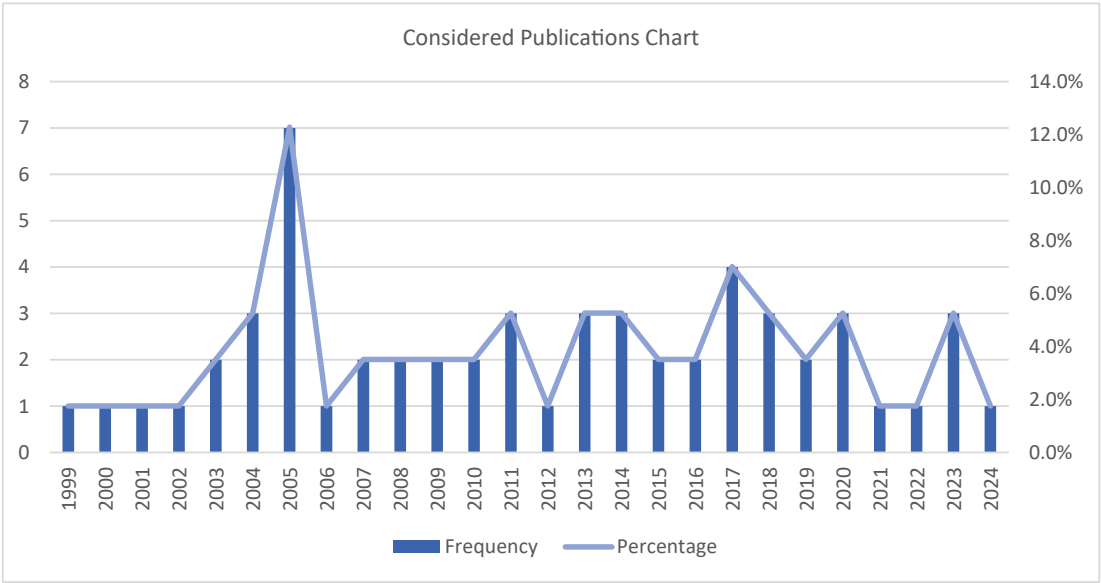

Fig. 3. Distribution of publications per year.

To analyze the extracted data, we applied a descriptive qualitative content analysis approach suitable for systematically coding qualitative data for frequency, meaning, and thematic patterns [111]. This method helped us in organizing the identified KSFs and MFs into understandable categories and guiding the process of developing a conceptual framework. Previous studies have categorized KMS success factors in various ways. For example, Cham et al. [7] grouped KMS factors into technical and social aspects, while Ali et al. [57] differentiated between organizational and systems factors. Butler and Murphy [112] proposed a three-category classification: institutional, strategic, and organizational factors. Likewise, Ravishankar et al. [2] identified KMS-KSFs across three levels: organizational, unit, and individual. Maramba and Smuts [17] presented KMS-CSFs in four categories: strategic, organizational, socio-technological, and operational. Similarly, Xu and Quaddus [49] and Quaddus and Xu [91] highlighted four factors specific to Australian businesses: organizational culture, top management support, individual advantages, and KMS aspirations.

In this study, we have synthesized the various factors identified through our SLR into five comprehensive categories: (i) Organizational Factors, (ii) Technological Factors, (iii) Leadership Factors, (iv) People-Oriented Factors, and (v) Knowledge-Oriented Factors. These categories are grounded in the existing literature, with factors ranked based on their frequency of occurrence in prior studies and their relevance to current market conditions. Table A2 outlines the categorized KMS-KSFs and presents each factor's impact on OP. The factors are listed in ascending order based on their frequency in the literature, with relevance and importance scores assigned accordingly.

4.3. Reporting the review

The concluding stage of a systematic review entails documenting the findings and sharing them with relevant stakeholders or interested audiences [106].

Step 9: Dissemination

The findings of this study are expected to be valuable not only to the KM and IS research community but also to practitioners interested in evidence-based approaches. It is institutionally disseminated through a research project administered by Begum Rokeya University, Rangpur's Research and Extension Division, which would also support future related projects. To ensure wide accessibility, the results are intended to share through publishing in an open-access platform.

Step 10: Report writing

The discussion is made based on literature survey findings in the section, 'Findings and Conceptual Framework' from SLR Survey. In reporting the review, single-stage phase according to Kitchenham [106] guideline is followed by documenting and reporting the findings.

5. Findings and conceptual framework

5.1. Results and analysis

The literature has extensively explored various factors influencing the success of KMS deployment. The findings indicate that organizational awareness and understanding of KSFs play a pivotal role in the success of KMS initiatives. The lack of understanding or oversight of these factors can significantly hinder an organization's ability to fully realize the advantages of KMS [59]. Numerous KSFs for KMS that impact OP have been identified in the literature. A comprehensive summary of these factors is presented in Appendix Table A1. This table includes a list of KSFs, the primary research theme, study objectives, types of methodology used, expected outcomes, and article sources. The "source and rank" column provides details on the citation, country of origin, journal name, and publisher, along with the publication's rating. If the study's specific area was not identified, the country of the author's affiliated institution is used as a proxy for the study's location.

Our SLR reveals that the number of publications come from 29 countries, with authors from the USA contributing the most (Table A5). Table A4 provides additional details, revealing that the most frequent publisher is IEEE, with the *Journal of Knowledge Management* being the leading journal in this field. The SLR categorizes publications into three types: journals (75 %), book chapters, and conference papers (Figures A1 and A2), with the majority (56 %) employing quantitative methodologies.

MFs act as intermediaries between various independent factors and the outcomes they influence, such as OP and business success. By analyzing each MF, organizations can identify areas for improvement and better align their operations with strategic goals [20,99]. For example, agility (MF-AG) allows organizations to quickly respond to market changes, enabling them to capitalize on new opportunities or adapt to disruptions. Case studies show that firms with higher agility, such as Amazon, have been able to instantly pivot during economic shifts or customer demands [76]. Similarly, collaboration (MF-CLB) fosters teamwork and KS, which enhances innovation and reduces redundancy. A notable case is Google, where collaborative environments have led to the successful development of new products, like Gmail [59].

Better service (MF-BS) and customer satisfaction (MF-CS) are necessary mediators in driving customer loyalty and retention. For example, Apple's customer service excellence directly contributes to its high customer satisfaction rates, which in turn enhance long-term customer loyalty [21,59,83]. These MFs not only improve internal processes but also contribute to a more competitive position in the market.

5.2. Development of conceptual framework

Based on the synthesized findings provided in Tables A2 and A3, a descriptive conceptual framework was developed to elucidate the interlinks of KMS-KSFs, MFs, and OP.

As is seen from Fig. 4, the framework presents a multi-layer model. The foundational level identifies 100 KSFs from the literature and groups them into five broad categories: organizational, leadership, technological, people-oriented, and knowledge-oriented. These KSFs are primary enablers that influence the success and efficiency of KMS implementation.

The framework also comprises 60 MFs comprised into two categories: financial and nonfinancial, derived from the current literature, moderate the effect of KMS-KSFs on OP. These moderation factors have a significant role to play in translating the effectiveness of KMS projects into real OP.

The arrows on the model indicate directional impact: KMS-KSFs directly affect both MFs and OP, while MFs independently reinforce OP. The stratified and dynamic relationship emphasizes that although MFs can boost OP independently, when important mediators are available and in harmony, its impact is significantly boosted.

Overall, the framework serves as a comprehensive visual snapshot of the revealed relationships from the SLR and provides a base for future empirical validation. It also provides practitioners with a structured way of the view to prioritize and balance KSFs and MFs to achieve superior OP through effective KMS deployment.

6. Discussion and implication

In recent decades, a well-designed KMS and its effective application have emerged as critical drivers for organizations worldwide. With the ongoing digital revolution, it has become significant for organizations to adopt a unified strategy and a systematic approach to KM in the digital age [113,114]. Recognizing this importance, this study provides both theoretical and practical contributions. Theoretically, it identifies KSFs for KMS adoption, contributing to enhanced OP. Practically, the findings offer actionable insights for guiding KMS implementation and underscore the role of KMS applications in driving performance, providing valuable insights for both practitioners and policymakers. Moreover, the study illustrates how KMS can influence OP from multiple organizational perspectives.

6.1. Theoretical contributions

This study presents a conceptual framework for understanding the KSFs that influence KMS adoption and its impact on OP. By addressing the issue of time-frame limitations, this research provides an up-to-date KMS success framework applicable to organizations

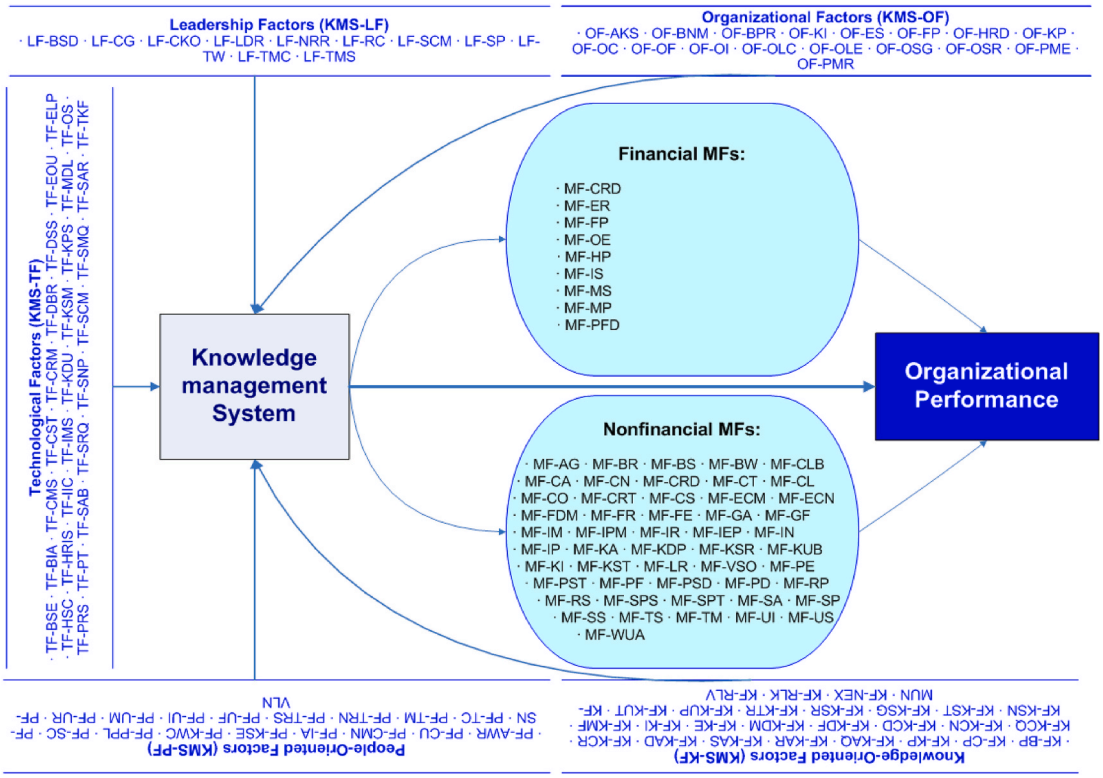

Fig. 4. Framework for KSFs of KMS affecting OP.

across various sectors. The study is unique in examining KMS-KSFs from five distinct perspectives, including the previously overlooked social factors [7]. It also investigates MFs that bridge the gap between KMS success and OP. Through a systematic review of the literature, this study enriches the knowledge domain in the fields of KM and IS, answering critical research questions and contributing valuable insights to the academic community.

This research also complements existing scientific literature by analyzing key studies published in renowned databases such as Scopus, Science Direct, Springer Nature, IEEE, Emerald, Wiley, and Taylor & Francis. The papers' major contribution lies in providing a clear set of KSFs such as organizational factors (OFs), technological factors (TFs), leadership factors (LFs), people factors (PFs), and knowledge factors (KFs), each of which signals organizational changes necessary to improve OP. Notably, this study contributes to the ISO 30401:2018-KMS standard as the first systematic exploration of the scope of this standard. The study's process and outcomes offer critical guidance for KMS developers, KM practitioners, and researchers to evaluate their projects and enhance KMS adoption. While the ISO 30401:2018 standard did not outline KSFs for KMS, this research fills that gap, providing stakeholders with a comprehensive overview of factors key to successful KMS implementation, tailored to achieve OP goals.

6.2. Practical contributions

From a managerial perspective, the findings of this study provide invaluable insights for organizations looking to adopt KMS. It helps managers determine and prioritize the KSFs to overcome barriers and optimize the benefits during the post-adoption phase. The study offers a comprehensive review of existing research on KMS-KSFs, providing a reliable reference for managers to develop sound KMS strategies. This research is particularly beneficial for senior management, department managers, team leaders, and employees, offering them practical tools for strategic decision-making in KMS implementation. Furthermore, this study is valuable for policy-makers who aim to encourage KMS adoption in different sectors.

The study outlines how KMS can improve OP through two primary categories of measurable MFs: financial and non-financial. It aids managers in understanding the specific KSFs that drive OP and offers operational guidance for prioritizing KMS applications that can build organizational capabilities. By focusing on strategic priorities, managers can use these insights to effectively enhance overall performance. Additionally, although the KSFs identified in this study are largely consistent with regard to countries at different stages of economic development, including low-, middle-, and high-income economies - their actual implementation can be tailored to drive performance in specific countries and organizations. This is particularly significant, considering that the adoption of KMS in middle-income economies has the potential to drive considerably both organizational competencies and general economic performance.

6.3. Lessons learned

Although numerous studies have examined KSFs of KMS and their impact on OP, several lessons have emerged after studying the current study. It is evident that a conceptual framework must be established prior to the system's implementation, as it helps guide the KMS project's development and purpose, which ensures alignment with organizational goals. To thoroughly implement KMS project, both enabling and MFs need to be considered. Fig. 4, drawn from the findings, offers a valuable starting point to fulfill such needs for organizations. A holistic approach that considers not only individual industries or organizations but the overall organizational level ensures that all aspects of the KMS enabling factors and its impact are addressed systematically. Additionally, understanding KSFs and MFs of KMS allows for enhancing OP, and helps to reduce complexity and obstacles during implementation. This approach ensures that OP could be effectively addressed after the KMS is deployed.

6.4. Limitations

This study acknowledges several inherent limitations that must be considered when interpreting the results. First, while a comprehensive systematic search was conducted across reputable databases, we were unable to include all potentially relevant databases, which may have resulted in the omission of some valuable studies. Additionally, this study only considers research published in English, excluding studies in other languages, which may limit the breadth of the review. Another limitation stems from the timing of the search, which was conducted in late 2024, meaning that more recent studies published after these periods are not included. Furthermore, the study selection process could have excluded some relevant studies due to the defined inclusion criteria.

A significant limitation of this study is the absence of bibliometric analysis. While this paper relied on narrative synthesis, a quantitative approach such as bibliometric coupling could provide deeper insights into the relationships between studies, their citations, and emerging trends in the field. This omission means the study might not fully capture the dynamics of the research landscape, which could have better visualized through a citation network or co-citation analysis.

6.5. Future research recommendations

While the theoretical framework for KMS implementation has been established, further empirical research is indispensable to validate the findings in real-world organizational settings. This might help assess the practical application of the KSFs identified in this study, especially in organizations where KMS deployment has already been done. Action research, with its focus on practical relevance and rigor, would be a suitable methodology to explore these factors further, and address real-world challenges faced by organizations.

Moreover, future research might examine KMS-KSFs across different industries, organizational types, and geographical regions. Research by Kavali et al. [115] suggests that KMS factors could vary significantly across domestic and international businesses, as well

as across different organizational levels. Comparative studies in different countries and sectors could provide a clearer understanding of how contextual factors influence KMS success, shedding light on the real-world challenges and outcomes organizations face in different environments.

Another avenue for future research involves addressing external challenges to KMS success, such as the broader institutional environment, which might hinder effective implementation [112]. Organizational decentralization, for example, create significant barriers to communication and collaboration, reducing the effectiveness of KMS [14]. Given the rapidly changing competitive landscape, continuous reassessment of KMS is critical to improving resilience and leveraging digital technologies for strategic advantage [113]. Future research could investigate the reasons behind the failure of some KMS initiatives despite strong supporting factors, contributing to a deeper understanding of the obstacles organizations face.

Additionally, new and evolving concepts in KMS, such as unlearning, continuous learning, and counter-knowledge, present promising research areas. For instance, Delshab et al. [12] demonstrated that unlearning positively affects OP in community sport clubs, yet this concept remains underexplored in KMS literature. Further research could examine how unlearning behaviors influence KMS and OP, offering a more nuanced understanding of how KMS drive change within organizations.

Future studies should also adopt a sector-specific approach to investigate KMS-KSFs, both qualitatively and quantitatively. Using advanced statistical methods such as hypothesis testing, factor analysis, and regression analysis through tools like SmartPLS or SPSS would provide a more granular understanding of the relationships between KMS factors and their outcomes. Such studies could also explore the financial viability of KMS in different national contexts, including diverse economic and digital contexts globally; to better understand how economic factors influence KMS implementation and success.

Furthermore, research on the DIKW (data, information, knowledge, wisdom) model could provide valuable insights into the role of KMS-KSFs within the KM framework [47]. Future studies could explore how KMS factors align with the stages of the DIKW model, deepening the understanding of how knowledge flows through organizations and contributes to KMS success.

Finally, as bibliometric methods such as bibliometric coupling and co-citation analysis are increasingly recognized for their ability to map the structure and evolution of scientific fields, future research could benefit from integrating these quantitative techniques. Utilizing tools like VOSviewer to create citation networks would provide a more comprehensive understanding of the relationships between key studies and identify emerging trends within the KMS field. This approach could enhance the methodological rigor of future studies and offer a broader view of how research in KMS has evolved over time.

7. Conclusion

KMS offers many opportunities and organizations always strive to be successful with KMS. Identifying KSFs for KMS help organizations successfully apply and operate KMS with clear and thought-provoking measures. This article provides a systematic overview of the KSFs affecting a KMS's implementation success in achieving OP. This study addresses four research questions in exploring the link between KMS-KSFs and OP. RQ1 is answered by the synthesis of literature in Table A1. RQ2 and RQ3 are addressed by the conceptual framework in Fig. 4, which specifies KSFs and MFs influencing OP. To answer RQ4, the framework delivers actionable knowledge that guides organizations in aligning their KMS initiatives with the ISO 30401 standard, enhancing implementation effectiveness and performance outcomes.

As discussed and supported by the findings of this study, it is evident that, despite knowledge workers being recognized as valuable organizational assets, KMS has also equal importance. Therefore, their application should be further optimized by recognizing the KSFs, with a steadfast emphasis on OP. We have highlighted KSFs by providing our review of the literature systematically that has been published over the last 35 years and have established a topic for further research in this field. Based on the SLR, we try to understand the current KSFs for KMS implementation by considering the research questions. By locating the complete set of 57 articles published in relation to KSFs of KMS in 1990 through 2024, this work adds to the body of scientific knowledge.

Thus, we figure out a list of 100 KSFs in the KMS under five categories including organizational, technological, leadership-based, people-centered, knowledge-induced factors, and, 60 MFs. This SLR recognizes organizational culture, structure, strategy, and learning environment; IT infrastructure and capability, ease of use, usefulness, support, and quality; leadership, top management support, strategies, and clear goals; people, communication, commitment, training, team, social capital, motivation, and trust; knowledge content quality, KS, and KM processes as the most prevalent KSFs. On the other hand, user and customer satisfaction, usage benefits, innovation, incentives, competitive advantage, cost savings, economic return, greater efficiency and communication, and better decision are typically used as MFs to determine the overall OP. This list is inevitable as a referenced record of all current KMS-KSFs that decision-makers need for a successful KMS implementation. Based on the descriptive qualitative content analysis method of the existing KMS-KSFs, we construct a framework from the extracted KSFs and MFs and their consequences. In essence, this study established a baseline for future SLR evaluations of KMS in the real world. Organizations are advised to focus more on framework formulated in this study as a precursor for their KMS project's success.

CRediT authorship contribution statement

Samsul Alam: Writing – original draft, Methodology, Funding acquisition, Conceptualization, Data curation, Validation, Writing – review & editing, Investigation. **Khaled Aminul Islam:** Writing – original draft, Software, Formal analysis, Writing – review & editing. **Repon Miah:** Writing – original draft, Investigation, Writing – review & editing, Validation. **Sumaiya Afrin:** Writing – original draft, Methodology, Visualization, Writing – review & editing. **Md. Ariful Islam:** Writing – review & editing, Validation, Data curation, Software. **Md. Rakibul Hoque:** Writing – review & editing, Formal analysis, Validation. **Imran Mahmud:** Software, Resources,

Writing – original draft.

Ethics declaration

Ethics committee review and/or approval were not required for this study since this study did not include direct human or animal participation. All the data used in this review study were acquired in compliance with ethical and consent requirements outlined in the ethics and policies guidelines of the Heliyon.

Data and code availability

Data included in the article/supplementary material is referenced in the article.

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Declaration of competing interest

The authors declare the following financial interests/personal relationships which may be considered as potential competing interests: Samsul Alam reports financial support was provided by University Grants Commission of Bangladesh. Samsul Alam reports administrative support was provided by Begum Rokeya University, Rangpur, Bangladesh. Imran Mahmud reports writing assistance was provided by Daffodil International University, Bangladesh. If there are other authors, they declare that they have no known competing financial interests or personal relationships that could have appeared to influence the work reported in this paper.

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Appendix

Table A1
Identification of factors that affect KMS in achieving OP

SN	Factor(s)	Main Theme	Objective	Method	Sample	Key Finding(s)	Source & Rank
1	o**Knowledge content quality** o **System quality** o **Perceived usefulness** o Sharing culture o Perceived trust o **Leadership** o Incentive o User satisfaction	KMS-KSFs in public sector	To evaluate the KMS success factors in OP	Quantitative: partial least square structural equation modeling (PLS-SEM) to test the DeLone and McLean model	158 personnel	Knowledge content quality has a greater impact on the utilization of KMS than system quality, with perceived usefulness being more influential than user satisfaction, while leadership is the most significant organizational factors of success, but sharing culture, trust, and incentives have little effect.	[5] Malaysia Heliyon,Elsevier B.V. Q1
2	o **Organizational culture** o **People** o Process	KMS-KSFs in service sectors	To show how culture influences the linkages between KMS and	Quantitative: PLS-SEM using Smart PLS 4.0 to test the	450 IT employees	Organizational culture, people, strategy, and technology have a	[116] UAE USCM, Growing

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Table A1 (*continued*)

SN	Factor(s)	Main Theme	Objective	Method	Sample	Key Finding(s)	Source & Rank
	o **Strategy** o **Technology**		other factors that affect KMS in the service sector	measurement model		significant impact on KMS's performance, highlighting the necessity of developing an encouraging workplace culture and giving employees more authority as well as ensuring appropriate technology and deploying right strategy.	Science Q2
3	o **Knowledge acquisition (KA)** o **Knowledge dissemination (KD)** o **Knowledge utilization (KU)** o *Teacher satisfaction* o *Teaching motivation*	KMS effectiveness	To evaluate the KMS effectiveness in academic staffs' satisfaction level	Quantitative: PLS-SEM	676 academic staffs	KA, KD, and KU are key pillars of KMS that enhance academic staff's teaching motivation and satisfaction.	[40] Vietnam DIB, Elsevier Inc. Q3
4	o **Organizational factors** (Top management commitment, Organizational structure & flexibility, Organizational culture, Best practices & benchmarking) **Strategic factors** (Strategic planning, Knowledge definition, Strategic change management) o **Resource factors** (Cost, HR resource, Team, Infrastructure, Knowledge quality) o **People factors** (Communication, Team work, Resistance to change)	KMS adoption and CSFs	To present CSFs of KMS adoption in SMEs	Qualitative: systematic literature review (SLR) technique	111 articles	Organizational structure and flexibility, the culture toward KM adoption, the quality of knowledge, and communication both within and across different areas of the organization, as well as teamwork across these areas, are key factors.	[8] Indonesia RESTI, IAII Q5
5	o **Social capital (**Cognitive (shared norms), Relational (trust), Structural (social connectedness))	Successful implementation of KMS	To explore the role of social capital in KMS use	Mixed: case study through semi-structured interviews and questionnaire survey	15 interviews and 73 respondents to survey	Each dimension of social capital-shared norms, trust, and connectedness-positively influences KMS usage. User attitude and perceived usefulness mediate these effects on knowledge exchange within the organization.	[13] China & Ghana HSM, IOS Press BV Q3
6	o **Relative advantage** o **System complexity** o **Knowledge quality** o System compatibility	KMS usage	To look into the impact of technical precursors on banks' decision-makers' use of the KMS that has been put in place	Quantitative: PLS-SEM to evaluate diffusion of innovation theory	341 decision makers using KMS	Decision-makers' use of the implemented KMS is significantly influenced by relative advantages, system complexity, and	[95] Jordan GKMC, Emerald Group Publishing Ltd. Q2

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Table A1 (*continued*)

SN	Factor(s)	Main Theme	Objective	Method	Sample	Key Finding(s)	Source & Rank
						knowledge quality, but not by system compatibility, with knowledge quality also showing a strong correlation with technological factors.	
7	o **Company culture** o **Formal processes** o **Top-down support** o **Clear goals** o **Motivation** o **KMS Quality**	Managerial factors that influence KMS	To eliminate the uncertainty that impacts the study of KMS	Qualitative: SLR technique	54 research papers from seven different KM journals from 2014 to 2018	The main determinants of KMS include company culture, formal processes, top-down support, clearly defined goals, motivation, and KMS quality.	[71] Australia KPM, John Wiley and Sons Ltd Q3
8	o **Strategic aspects** o **Organizational aspects** o **Socio-technological aspects** o **Operational processes aspects**	KMS selection framework	To explore and analyze the various frameworks for KMS-CSFs	Qualitative: SLR technique	25 frameworks	Various frameworks are available for implementing KMS that includes CSFs and measurement tools for organizations to use in KMS project implementation.	[17] South Africa IJKM, IGI Publishing Q3
9	o **HR development** o **Knowledge-based orientation** o **Knowledge evaluation** o **Knowledge transfer** o **IS infrastructure** o **Participatory organizational culture** o **Modeling**	KMS success factors	To present a model for creating a systematic KMS in knowledge-based organizations, grounded in success factors	Quantitative: Statistical factor analysis by SPSS	108 managers and staffs	The seven factors studied account for 65.16 % of the total variance, which is considered acceptable.	[117] Iran AMOR, Goodwood Publishing Q5
10	o **Community of practice** o *KM activity* o *Innovation performance*	KMS and management performance	To examine how an organization's community of practice and KMS influence KM activities and overall management performance	Quantitative: factor analysis utilizing SPSS 18.0 and AMOS 16.0	285 medium and large organizations	The community of practice and KMS both enhance KM activities and innovation performance, with the system having a stronger effect on KM and the community of practice having a greater impact on innovation, though the KMS's influence on innovation isn't statistically significant.	[31] Korea KMRP, Taylor and Francis Ltd. Q2
11	o **Organizational culture** o **Information technology** o **Organizational structure** o **Performance evaluation and measurement**	KMS-KSFs in health care organization	To identify the factors that affect the KM success process in health care organizations in both developed and developing countries	Qualitative: SLR technique	13 research papers from six distinct databases from 1980 to 2017	The KMS-KSFs are organizational culture, IT, organizational structure, and performance measurement and evaluation.	[72] Iran HILJ, Wiley-Blackwell Publishing Ltd Q2
12	o **Human** (Commitment,	KMS factors affecting OP	To extract KMS factors and	Qualitative: literature review		The paper proposes a	[20] Malaysia

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Table A1 (*continued*)

SN	Factor(s)	Main Theme	Objective	Method	Sample	Key Finding(s)	Source & Rank
	Subjective norms, Trust, Socio-Political influences) o **Technology** (Perceived usefulness, Perceived ease of use, KMS self-efficacy, Task-KMS-Fit) o **Organization** (Organizational structure, Leadership) o Knowledge (Knowledge characteristics)		develop a KMS success framework in achieving OP in the oil and gas industries			conceptual framework consisting of four key dimensions: human, technology, organization, and knowledge.	JATIT Q3
13	o System quality o **Knowledge quality** o **KMS search ability** o **User perceived KMS benefits** o *User satisfaction*	KMS success model	To propose a model for predicting the success of semantic KMS	Quantitative: PLS-SEM using SmartPLS	199 users	User satisfaction with semantic KMS is positively linked to perceived benefits, which are strongly tied to system search ability, while knowledge quality shows a weak association with perceived benefits.	[29] Malaysia IJET, Engg Journals Publications Q3
14	o **Knowledge content quality** o **Leadership** o **Perceived KMS usefulness** o KMS system quality o Sharing culture o Subjective norm o KMS usage (for retrieval and sharing) o *User satisfaction*	KMS successful application factors	To evaluate the successful implementation of Kemenkeu Learning Center and reveal the key factors driving its success	Quantitative: PLS-SEM using SmartPLS	218 users	Leadership and knowledge content quality positively impact the perceived usefulness of KMS and user satisfaction, which in turn significantly influence KMS usage for both sharing and retrieval.	[97] Indonesia CITSM, IEEE Explore (Conf) Q4
15	o **Leadership** o **Knowledge content quality** o **Incentive** o *Better patients outcomes*	Framework for KMS success factors	To examine factors influencing KS and their impact on KMS success, and explore their relationships	Quantitative: PLS-SEM using SmartPLS to test the generic KMS success model	263 healthcare doctors	System quality, user engagement, and alignment are found as the KMS-KSFs.	[57] New Zealand IJMEDINF, Elsevier Ireland Ltd Q1
16	o**KM capabilities** o **KS** o **Organizational learning capabilities** o **IT capabilities**	KMS adoption factors	To understand the factors that affect the adoption process of KMS in SMEs	Quantitative: PLS-SEM to test the process model	247 employees	KM capabilities, KS, organizational learning capabilities, and IT capabilities are significant factors influencing the adoption of KMS.	[82] Jordan BPMJ, Emerald Group Publishing Ltd. Q2
17	o **Perceived ease of use (PEOU)** o **Perceived usefulness (PU)** o **Voluntary use (VU)** o perceived entertainment value (PEV) o *Web usage attitude (WU)*	Factors affecting KMS application in SMEs	To analyze the correlation among factors affecting the technology acceptance model of KM in SMEs	Quantitative: PLS-SEM to examine the technology acceptance model	105 employees of organizations	PEOU influences PU, which causes the advantage in VU, and these have an impact on WU.	[118] Indonesia PCS, Elsevier B. V. Q4
18	o **Top management support** o **Bottom-up system development approach**	KMS success stories	To explore KMS factors and concepts	Qualitative: literature review		Although technology is vital for implementing KMS, the CSFs lie in addressing behavioral issues,	[16] USA IIS, International Association for Computer Information

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Table A1 (*continued*)

SN	Factor(s)	Main Theme	Objective	Method	Sample	Key Finding(s)	Source & Rank
	o **Metrics to define KMS support** o **Keeping updated knowledge in KMS process** o **Ease of system use**					such as clearly defined business needs, executive support, user involvement, and effective training, alongside the quality and quantity of knowledge, user interface, and internal marketing to encourage user buy-in and ownership.	Systems Q5
19	o **KMS quality** o Perceived KMS search ability o **KMS usefulness** o **Ease of use** o Rewards (intrinsic & extrinsic) o Trust o social norm o *Employee satisfaction*	KMS success framework	To propose a framework that predicts the success of KMS usage by doctoral researchers	Quantitative: Statistical analysis	46 researchers	Quality and usefulness are key reasons for assessing satisfaction with KMS usage.	[67] Peru CHB, Elsevier Ltd· Q1
20	o **Knowledge quality** o **System quality** o **Service quality** o **User trust** o **Management support** o *User satisfaction*	KMS success factors	To oversee the effect of both KMS success from technical and social aspects, while also investigate the interrelationships between KMS success and user satisfaction	Quantitative: SEM via SPSS and AMOS to evaluate the KMS success model	204 officers private banking organization	Technical (system, knowledge, and service quality) and social factors (user trust, management support) significantly impact user satisfaction, which directly influences KMS success, and vice versa.	[7] · Malaysia VJIKMS, Emerald Group Publishing Ltd. Q2
21	o **Organization culture** o **Top management commitment & support** o **KM tools & technology** o **KM organization & process** o **KM measurement & incentives** o *Competitive advantage*	KM success variables	To identify CSFs of KMS	Quantitative: system dynamics approach utilizing VenSim® 5.11A	Five CSFs are tested	The simulation results underscore the importance of promptly embracing technology and reducing adoption delays to gain a competitive advantage.	[119] Thailand ICICKM, ACI Q5
22	o **Intention to share knowledge** o Perceived task technology o Task characteristics o KMS characteristics utilization o *KMS performance*	Factors of KMS in performance impact	To explore the KMS performance impact determinants and exchange knowledge about them	Quantitative: PLS-SEM technique to examine task technology fit model	95 employees of two organizations	The desire to share knowledge has a significantly positive impact on KMS performance.	[120] Egypt FBJ, Elsevier Q5
23	o **Knowledge assets** o **Knowledge sharing** o **Learning** o **Leadership** o **Technology** o **Organizational culture**	KMS and organizational culture	To explore the requirements for achieving effective use of a KMS	Mixed: interviews of selected cases are analyzed through Nvivo and quantitative data by SPSS	KMS users of selected organizations	Organizational culture and key incentives are critical drivers of KM, aiming to develop a model that enhances the effective use of KMS.	[9] Saudi Arabia IBIMA, Open Publications of UTS Scholars Q4
24	o **Hardware & software characteristics**	KMS-CSFs and scoring model	To identify the CSFs within the technical	Mixed: Interview and survey	60 people from Dubai Police, Court, Customs,	The prioritization of CSFs is influenced by the	[121] UAE IJAIS, FCS Q5

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SN	Factor(s)	Main Theme	Objective	Method	Sample	Key Finding(s)	Source & Rank
	o **Business intelligence applications** o **Tacit KM** o **Social networking applications** o **Database & repositories** o **Standards & protocols** o **Operating systems** o **Browsers & search engines**		dimension of KM and to develop a weighted scoring model based on the lessons learned		and Emirates Airline	organization's strategy and business type.	
25	o Employee training o Performance management o **Leadership** o **IS infrastructure**	CSFs to KMS implementation	To seek the KMS-CSFs for successful application	Quantitative: Regression analysis	31 users	There is a strong connection between infrastructure and leadership in relation to the successful implementation of KMS.	[122] Pakistan KBJ, Khadim Ali Shah Bukhari Institute of Technology Q5
26	o **Organizational readiness (**Top management support, Organizational fit, Technological resources, Training resources, Project management resources) o **Organizational learning capability (**Experimentation, Risk taking, Integration with internal and external environment, Dialogue, Participative decision making) o **Expected benefits** o Control variables (Firm size, Industry type)	KMS adoption factors	To evaluate the factors influencing KMS adoption and continuance intention to use	Quantitative: PLS-SEM to test the model	220 senior executives of large organizations	Organizational readiness, expected benefits, and learning capability influence KMS adoption or continuance intention, with organizational readiness having a stronger effect on potential adopters compared to current users.	[123] Taiwan KMRP, Taylor and Francis Ltd. Q2
27	o **Strategies** o **Inhibitors** o **Current KMS limitations** o Awareness	KSFs in adopting KMS	To examine the KMS-KSFs to espouse and apply KMS	Quantitative: descriptive, reliability, and factor analysis are performed through SPSS 17.0	83 employees	Efforts/strategies, current KMS limitations, and inhibitors to success are the three factors associated with KMS success while awareness is excluded; however, it remains vital, especially for new organizations adopting KMS.	[24] Malaysia WASJ, International Digital Organization for Scientific Information Q2
28	o **Document management** system o **Electronic learning platform** o **Virtual human resource management system** o **Knowledge portal system**	KMS selection framework	To present a methodological framework to assist managers in selecting KMS	Qualitative: analytical hierarchical process method		The methodological framework is highly applicable to various business contexts, as its hierarchical structure meets the diverse needs of	[83] Italy IJEBM, International Journal of Engineering Business Management Q4

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Table A1 (*continued*)

SN	Factor(s)	Main Theme	Objective	Method	Sample	Key Finding(s)	Source & Rank
	o **Decision support system** o **Customer relationship management system** o **Supply chain management system** o *Knowledge impact* o *KMS application* o *Cost reduction* o *Stakeholder satisfaction*					many organizations.	
29	o **Taskcharacteristics** (broad content-oriented; focused content-oriented; focused process-oriented; broad process-oriented) o **KM processes** (socialization, externalization, combination, and internalization) o **KMS capabilities** (codification, network) o *KM performance* o *Knowledge quality* o *Knowledge satisfaction* o *Creativity*	KMS success factors in an aerospace manufacturer	To explore how to align KMPs and KMS capabilities with the task characteristics	Quantitative: PLS-SEM technique to validate fit model	212 employees of 12 aerospace subunits	Four optimal conceptual KM profiles are created where KMPs, task characteristics, and KMS capabilities can all improve KM performance, knowledge quality, knowledge satisfaction, and innovation.	[94]Taiwan JKM, Emerald Group Publishing Ltd. Q1
30	o **Senior executives support for KMS** o **IT management sophistication** o **Knowledge sharing between IS and business executives** o **Environmental stability** o **Communication between IS and business executives** o **Connection between IS and business executives** o **Favorable informal structure**	KMS deployment success factors	To examine the impact of organizational subcultures on aligning a KMS with the overall organizational strategy in Indian global IT companies	Qualitative: Interviews	60 KMS users	The analysis reveals the key roles of enhancing, countercultural, and chameleon subcultures in KMS alignment and underscores the importance of integrating alignment and implementation literatures to explain IS success.	[2] Australia, Singapore, & USA ISRE, INFORMS Institute for Operations Research and the Management Sciences Q1
31	o **Knowledge map fit** (Knowledge quality, System quality, Service quality, Perceived KMS benefits, Perceived ease of use, KMS use, User satisfaction)	KMS success factor	To explore the relationship between knowledge map alignment and the success of KMS	Quantitative: statistical analysis through SPSS	Three organizations	A statistically significant relationship exists between knowledge map alignment and all the previously mentioned factors, contributing to the overall success of the KMS.	[124]Abbasi (2011), Iran AJBAS, INSInet Publications Q3
32	o **Knowledge use** o **KM processes** o *Improved ability to compete*	KMS success factors	To identify the KMS-KSFs	Qualitative: literature review		The first KMS success improves the organization's competitiveness through knowledge use, while the second sees success in the effective implementation of KMPs via the KMS,	[45] USA EKM, IGI Global Q5

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Table A1 (*continued*)

SN	Factor(s)	Main Theme	Objective	Method	Sample	Key Finding(s)	Source & Rank
						with both requiring the system's active use.	
33	o **Team** o **Clear understanding** o Organizational culture o Technological infrastructure o Collaborative processes o Content management o Training o Dedicated team o Patience o Employee opinion o Enough funding o Goal and objective setting o **Improved data retrieval** o **Reduced loss of knowledge**	KMS parameters	To offer tools for adopting KMS	Qualitative: literature review		Reduced loss of required information and improved data retrieval along with team and clear understanding would be key components of the KMS implementation's success	[14] Malaysia RCKII, UIS Q5
34	o **System quality** • Functionality • Reliability • Usability • Serviceability • Accessibility • Flexibility • Security • Completeness	KMS quality dimension	To propose a theoretical framework for the quality aspects of KMS	Qualitative: literature review	Eight separate dimensions	The study pinpoints the eight KMS attributes of quality in the measurement process, which is fundamental before implementing any improvement program	[32] Iran TQMBE, Routledge Q1
35	o **Knowledge map fit** o **Personalization** o **Ease of use** o **Usefulness** o *User satisfaction*	KMS success factors	To understand factors affecting employee satisfaction with KMS in international high-tech organizations	Quantitative: PLS-SEM to test the measurement model	133 employees of four organizations in the Hsin-Chu Science-based Industrial Park	KMS with better knowledge map fit and personalization will directly or indirectly satisfy employees through the mediating effects of improved perceptions of ease of use and usefulness.	[10] Taiwan Technovation, Elsevier Ltd Q1
36	o **Social capital** (Trust, Shared vision, Social interaction ties) o **IT capability** o Knowledge quality o System quality o Service quality o *Perceived KMS benefits* o *User satisfaction* o *Net benefits*	KMS success factors	To explore the factors that contribute to the successful implementation of KMS	Quantitative: confirmatory factor analysis approach utilizing LISREL to test the research model	208 mid-level managers	While social capital and organizational IT capability are key prerequisites for KMS success, trust, social interaction ties, and IT capability show no significant impact on service quality, system quality, and IT capability; unexpectedly, service quality and knowledge quality also do not significantly affect perceived KMS benefits and user satisfaction.	[19] Taiwan KMEL, University of Hong Kong Q5

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SN	Factor(s)	Main Theme	Objective	Method	Sample	Key Finding(s)	Source & Rank
37	o **ICT**	Role of ICT in KMS implementation	To provide insights how ICT is key to KMS for success	Qualitative: literature review		The deployment of KMS has been greatly supported by ICT.	[125] USA · IGI Global · Q5
38	o *Innovativeness* o *Agility*	KMS contingent success factors	To show the direct and indirect impact of KMS on OP	Quantitative: PLS-SEM to examine the IS success model	100 organizations	KMS usage directly and indirectly impacts organizational performance, with organizational agility and innovativeness serving as key mediators.	[76] Hong Kong JKM, Emerald Group Publishing Ltd. Q1
39	o **Content** o **Ease of use** o **Personalization** o **Community** o *User satisfaction*	KMS and user satisfaction	To evaluate the KMS user satisfaction	Quantitative: factor analysis	147 users from four international semiconductor manufacturing organization	A 16-item tool designed to assess four different dimensions of user satisfaction with KMS.	[11] Taiwan CHB, Elsevier Ltd Q1
40	o **Organizational influences** o **Aligning KM strategy to organizational strategy** o **Sharing KM objectives** o **Top management commitment** o **New roles and responsibilities** o **KMS design** o **KMS planning and implementation** o **People** o **Team orientation** o **Trust** o **Training** o **Incentives and rewards** o **Change of structure and processes**	KMS-KSFs	To measure the KSFs for KMS application	Qualitative: Case study through pilot study and post implementation interviews	Five knowledge workers and 18 employees of public sector organization before and after KMS implementation	All the identified factors are found to be effective for KMS success.	[112] Ireland ECIS Q4
41	o **Knowledge strategy** o **Training programs** o **CEO support and commitment** o **Business process reengineering** o **Network of experts** o **Knowledge sharing** o **Organizational culture** o **Pilot testing** o **Knowledge storage** o **Knowledge audit** o **Knowledge architecture**	KMS-CSFs	To close the previously existing gap in incorporating all the KMS factors into a multi-case study investigation	Qualitative: case study method	Six organizations that applied KMS successfully	The overall outcomes were favorable and demonstrated the suitability of the suggested CSFs. The remaining conclusions provide guidance on how to create and implement a KMS in an organization and include 16 principles and a conceptual framework. The conceptual framework offers a road map for the organizations' KM efforts to be successful.	[70] Iran EBR, Emerald Group Publishing Ltd. Q3
42	o **KMS ratings** o **Content credibility** o *KMS search* o *KMS evaluation*	Perfect utilization of KMS	To oversee how content ratings and credibility indicators	Quantitative: lab experiments are performed	Four experiments	Ratings strongly impact KMS search, evaluation, and decision	[25] USA MISQ, Management

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SN	Factor(s)	Main Theme	Objective	Method	Sample	Key Finding(s)	Source & Rank
	o *KMS decision performance*		influence the search, evaluation processes, and decision-making performance of KMS users			performance, with credibility indicators moderating the effect of rating validity.	Information Systems Research Center Q1
43	o **Knowledge structure** o **Organizational culture** o **IT infrastructure** o **Employee involvement** o **Employee training** o **Senior management leadership and commitment** o **Benchmarking** o **Performance measurement** o **Trustworthy teamwork** o **Learning environment** o **Resource control** o Employee empowerment o *Competitiveness*	KMS in pharmaceutical industry	**To describe KMS-CSFs**	Quantitative: Mann-Whitney u-test is applied to evaluate the model	98 Taiwan Pharmaceutical Marketing and Management Association (TPMMA) members	All CSFs in KMS in the pharmaceutical industry are necessary for organizational competitiveness though employee empowerment is insignificant.	[41] Taiwan IMDS, Emerald Group Publishing Ltd. Q2
44	o **Organizational culture** o **Organizational infrastructure** o **Technical infrastructure** o **Management support** o **Vision clarity** o Reward policy o **Economic return** o **Training** o **Matching users' needs**	Success Factors for KMS	To look into how the effectiveness of KMS in Omani organizations is affected	Mixed: questionnaire survey and interviews	53 large organizations	All factors considered, with the exception of the reward policy, contribute to KMS success.	[33]· Oman JGITM, Taylor and Francis Ltd. Q2
45	o **Information quality** o **System quality** o **Service quality** o *Intention to use* o *User satisfaction* o *Net benefits*	KMS success	To examine the KMS use and individual learning	Quantitative: SEM applying SPSS to evaluate overall fit model	354 employees	The model fits well with the KMS success factors.	[126] Taiwan & USA IJKM, IGI Publishing Q3
46	o **Perceived usefulness** o **Perceived ease of use** o **Perceived voluntariness** o **Extrinsic motivation** o **System quality** o **Knowledge quality**	Factors influencing KMS loyalty	**To look into what influences KMS usage loyalty**	Quantitative: IS success model is examined using LISREL 8.54	1013 end users of a multinational pharmaceutical organization	Perceived usefulness has the biggest impact on loyal use.	[30] USA IEEE Explore, IEEE (Conf.) Q4
47	o**Knowledge culture** o **Organizational infrastructure** o **IT infrastructure** o **Management support** o **Vision clarity** o Rewards o **Economic return** o **Knowledge structure**	KMS success factors	To show the technical and social factors of KMS for being successful	Quantitative: statistical regression analysis	31 IT managers	Social and IT factors are critical for KMS success.	[85] Bahrain, Qatar, Oman, Kuwait, Saudi Arabia, UAE MDOIT, Idea Group Inc. (Conf) Q5

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SN	Factor(s)	Main Theme	Objective	Method	Sample	Key Finding(s)	Source & Rank
48	o **Technological infrastructure** o **Organizational environment** o **User requirement** o **Organizational culture**	Determinants of successful implementation of intranet-based manufacturing KMS	To determine the causes of the limited success that KMS implementation has shown	Qualitative: literature review and case study		For the purpose of managing manufacturing knowledge in a way that will boost the organization's competitiveness, an intranet-based manufacturing KMS is created showing the role of identified factors.	[127] Malaysia IBIMA, Springer (Conf.) Q4
49	o **Organizational culture** (Human behavior, Freely sharing information, Closely working with others, Team work, Trust, Fairness, Enthusiasm: Attention to detail, Stability, Compliance, Calmness)	KMS implementation success factors	To identify the key aspects of organizational culture that enhance the successful implementation of KMS	Quantitative: Statistical analysis	26 organizations that applied KMS	Ample evidence demonstrates a clear correlation between specific cultural attributes and the successful implementation of KMS, as well as effective KS.	[37] USA JKM, Emerald Group Publishing Ltd. Q2
50	o *Higher user satisfaction* o *Higher customer satisfaction* o *Greater customer retention* o *Increased performance satisfaction* o *Enhanced ability to meet goals* o *Enhanced ability to attract loyal customers* o *Improved strategic ability to handle issues* o *Improved efficiency across organization (locating and accessing documents, information processing)* o *Improved process flow* o *Improved processing speed (data and work)* o *Enhanced confidence (database accuracy, managerial oversight)* o *Greater independence (work from anywhere)* o *Better work* o *Fewer employees* o *Reduced stress* o *Better decision making* o *Less repetition* o *Greater flexibility* o *Reduced problems* o *Improved quality (information, databases, searching)* o *Improved collaboration* o *Better employee evaluation* o *More plausible financial data* o *Time saving (information acquisition, scheduling, interfacing paper work, organizational*	KMS performance measurement framework	To evaluate the KMS implementation success in state owned universities	Mixed: Interviews and quantitative evaluation		It outlines a planned, multi-phase KMS implementation and introduces theoretically grounded, yet practical, metrics that will be used to assess the ongoing success of the KMS.	[59] USA JCIS, Taylor and Francis Ltd. Q3

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SN	Factor(s)	Main Theme	Objective	Method	Sample	Key Finding(s)	Source & Rank
	searching, and IT coordination time) o *Cost saving (managerial, data management and storage, outsourcing)* o *Enhanced connectivity* o *Enhanced communication* o *Enhanced access to internet resources* o *Increased usage rate* o *Higher productivity* o *Improved management* o *Better recording* o *Higher strategic positioning*						
51	o **KMS metrics and measures**	KMS metrics	To analyze research and practice measures and pinpoint areas that require more study	Qualitative: literature review		The KM process and organizational level has been a comparatively popular focus of research on KM and KMS measurements.	[1] Singapore HICSS, IEEE Computer Society Q4
52	o **Commitment of knowledge workers** o **Motivation of knowledge workers**	KMS success factors affecting OP	To evaluate the role of KMS antecedents of commitment and motivation in OP	Quantitative: factor analysis through Varimax method	208 users of healthcare organization	The knowledge workers commitment and motivation influence the utilization of KMS, which in turn impacts the OP.	[90] USA HICSS, IEEE Computer Society Q4
53	o **Perceived relevance** o **Systems accessibility** o **Management support**	KMS acceptance framework	To introduce a KMS acceptance framework	Qualitative: requirements of acceptance model		Perceived relevance, system accessibility, and management support all play a role in how well KMS is accepted.	[75] Sweden IGI Global Q5
54	o Environment o Strategy o Technology o **Culture** o **Structure** o Clear understanding of KM o Future concern o Knowledge architecture support	Practically evaluating KMS	To determine which factors are predominant in KMS by differentiating KMS in theory (subjective and objective) and in practice (objective)	Qualitative: case study	Three cases	Successful implementation of KMS requires a sharing culture as well as KMS structure in searching and retrieving relevant knowledge.	[46]USA HICSS, IEEE (Conf.) Q4
55	o **Technology** o **Culture** o **Environment** o **Structure** o **Sharing**	Review of KM and KMS theory and issues	To review the theoretical underpinnings and research challenges of KM and KMS	Qualitative: literature review		Strategic management, organizational theory, and IS are among the current literatures that frequently discuss organizational knowledge and KM.	[34] USA, France MISQ, Management Information Systems Research Center Q1
56	o **Network size and diversity** o **Maintenance of knowledge flows** o *Long term KMS usage effects*	Framework for KMS success factors	To use an implicitly constructed framework to classify KMS based on the knowledge locus and the a priori content structuring	Qualitative: literature review		The maintenance of knowledge flows, the scale and diversity of networks, and the long-term effects of KMS use offer a window into work in other reference domains that	[6] USA ICIS, ACM (Conf.) Q4

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SN	Factor(s)	Main Theme	Objective	Method	Sample	Key Finding(s)	Source & Rank
						would augment the usefulness of KMS.	
57	o **KMS metrics** o **Technology** o **Organizational culture** o **Change management** o **Knowledge sharing** o **Knowledge quality** o **Database management** o **Communication and messaging** o **Browsing and retrieval** o **Internet-based KMS architecture** o **Knowledge sharing** o **Knowledge conversion** o *Enhanced communications* o *Greater overall efficiency* o *Financial performance* o *Cost reduction* o *Increased sales* o *Higher profitability* o *Personnel reduction* o *Better service* o *Customer focus* o *Customer satisfaction* o *Product innovation* o *Cost savings* o *Time to market* o *Marketing performance* o *Market shares* o *More visible staff opinions* o *Competitive positioning* o *Targeted marketing* o *Proactive marketing* o *Improved project management* o *Increased staff participation* o *Reduced problem solving time* o *Shorter proposal time* o *Faster results* o *Faster market delivery*	KMS characteristics	To identify and discuss the issues, challenges, and advantages of KMS	Quantitative: statistical analysis	50 IT executives in an executive development program	Cultural factors, such as changing employee attitudes, organizational factors, such as rewards, and technical considerations, such as technical infrastructure, information, and security, are all necessary for KMS implementation.	[21] USA CAIS, Association for Information Systems Q5

Table A2
KSFs of KMS affecting OP based on SLR survey results in five categories with brief explanation and indexing

Factor SL	Cat. SL	KMS-KSFs	Brief Definition	Factor Indexing	Sources
A. ORGANIZATIONAL FACTORS (KMS-OF)			*Factors related to the organization's internal structure, culture, and alignment with KMS strategy*		
1	1	**Aligning KMS strategy to organizational strategy**	Ensuring KM aligns with overall organizational goals for success	OF-AKS	[112]
2	2	**Benchmarking**	Measuring performance against industry leaders to improve	OF-BNM	[8,41]
3	3	**Business process reengineering**	Redesigning workflows for efficiency	OF-BPR	[70]
4	4	**Continuous improvement**	Ongoing efforts to enhance processes and systems	OF-KI	[24]
5	5	**Environmental stability**	Adapting KMS to a consistent internal and external environment	OF-ES	[2]
6	6	**Formal processes**	Structured procedures to guide KMS processes	OF-FP	[17,71]

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Table A2 (*continued*)

Factor SL	Cat. SL	KMS-KSFs	Brief Definition	Factor Indexing	Sources
7	7	**Human resource development**	Training employees to improve KMS skills	OF-HRD	[117]
8	8	**KMS planning**	Strategic development of KMS	OF-KP	[112]
9	9	**Organizational culture**	Shared values and behaviors that support KMS	OF-OC	[8,9,17,21,33,34,37,41,46,70,71,85,116,117,119,127]
10	10	**Organizational fit**	Ensuring KMS align with organizational needs	OF-OF	[123]
11	11	**Organizational infrastructure**	Physical and technological structures supporting KMS	OF-OI	[33,85]
12	12	**Organizational learning capability**	The ability to acquire and use knowledge	OF-OLC	[9,82,123]
13	13	**Organizational learning environment**	Culture fostering KS and innovation	OF-OLE	[21,34,41,127]
14	14	**Organizational strategy**	Long-term plan guiding the organization's direction	OF-OSG	[24,116]
15	15	**Organizational structure**	Hierarchical design that supports KMS processes	OF-OSR	[2,8,20,34,46,72]
16	16	**Performance measurement & evaluation**	Assessing KMS's effectiveness	OF-PME	[41,72]
17	17	**Project management resources**	Tools and skills for managing KMS initiatives	OF-PMR	[123]
B. TECHNOLOGICAL FACTORS (KMS-TF)			*Factors focusing on tools, systems, and technological infrastructure necessary for KMS*		
18	1	**Browsers & search engines**	Tools to locate and retrieve knowledge	TF-BSE	[21,121]
19	2	**Business intelligence applications**	Software that helps analyze organizational data	TF-BIA	[121]
20	3	**Content management system**	Tools for organizing, storing, and retrieving digital knowledge content, including text, images, audio, video, and web content	TF-CMS	[11,83]
21	4	**Cost**	Expenses for KMS software, hardware, implementation, maintenance, training, and scalability	TF-CST	[8]
22	5	**Customer relationship management system**	Tools managing customer-related knowledge	TF-CRM	[83]
23	6	**Database & repositories**	Centralized storage systems for KMS	TF-DBR	[21,121]
24	7	**Decision support systems**	Tools aiding decision-making through data analysis	TF-DSS	[83]
25	8	**Ease of use**	User-friendly KMS to encourage adoption	TF-EOU	[10,11,16,20,30,67,95,118]
26	9	**Electronic learning platform**	Online tools for knowledge acquisition and dissemination	TF-ELP	[83]
27	10	**Hardware & software characteristics**	Technical specifications impacting KMS	TF-HSC	[121]
28	11	**Human resource information system**	Software managing employees and their knowledge	TF-HRIS	[83]
29	12	**IT infrastructure & capability**	Information systems supporting KMS processes and organization's ability to leverage technology	TF-IIC	[17,19,21,33,34,41,72,82,94,117,119,122,123,127]
30	13	**IT management sophistication**	Advanced IT strategies supporting KMS	TF-IMS	[2]
31	14	**KMS design & usefulness**	The web-enabled KMS layout and structure for remote access and practical value it offers to users	TF-KDU	[5,10,20,21,30,67,97,118]
32	15	**KMS support metrics**	Measures evaluating the support systems for KMS based on user satisfaction, response time, system uptime, resolution, and rate for issues	TF-KSM	[1,16,21,25,112]
33	16	**Knowledge portal system**	Centralized access to organizational knowledge	TF-KPS	[83]
34	17	**Modeling**	Visual representation of knowledge processes	TF-MDL	[117]
35	18	**Operating systems**	Software platform hosting KMS	TF-OS	[121]
36	19	**Personalization**	Tailoring KMS experiences to individual user needs	TF-PRS	[10,11]
37	20	**Pilot testing**	Initial trial of KMS for feedback	TF-PT	[70]
38	21	**Search ability**	Efficiency in locating specific knowledge in KMS	TF-SAB	[29]
39	22	**Service quality**	Effectiveness of support services for KMS	TF-SRQ	[7,126]
40	23	**Standards & protocols**	Rules ensuring KMS consistency and reliability	TF-SNP	[121]
41	24	**Supply chain management system**	Managing supply chain-related knowledge	TF-SCM	[83]
42	25	**System quality**	Overall performance and reliability of KMS	TF-SMQ	[5,7,30,32,67,71,126]
43	26	**Systems accessibility & data retrieval**	Enhanced methods to access to KMS and use knowledge resources it holds	TF-SAR	[14,75]
44	27	**Task-KMS-Fit**	Matching KMS functionality to specific tasks	TF-TKF	[20]
C. LEADERSHIP-ORIENTED FACTORS (KMS-LF)			Factors involving leadership's role in guiding and supporting KMS strategies		
45	1	**Bottom-up system development approach**	Creation of user-driven KMS	LF-BSD	[16]
46	2	**Clear goals**	Well-defined KMS objectives aligned with strategy	LF-CG	[33,71,85]
47	3	**Communicating KM objectives**	Sharing KMS goals clearly with stakeholders	LF-CKO	[112]
48	4	**Leadership**	Guiding KMS initiatives through strategic direction	LF-LDR	[5,9,20,57,97,122]

(*continued on next page*)

Table A2 (*continued*)

Factor SL	Cat. SL	KMS-KSFs	Brief Definition	Factor Indexing	Sources
49	5	**New roles & responsibilities**	Adapting roles for KMS integration	LF-NRR	[112]
50	6	**Resource control**	Efficiently managing resources for KMS success	LF-RC	[41]
51	7	**Strategic change management**	Guiding organizations through KMS-related transitions	LF-SCM	[8,21,112]
52	8	**Strategic planning**	Long-term preparation to align KMS with organizational goals	LF-SP	[8,17]
53	9	**Teamwork**	Collaborative efforts to achieve KMS goals	LF-TW	[8,41]
54	10	**Top management commitment & support**	Leadership endorsement of KMS efforts	LF-TMC	[2,7,8,16,33,41,70,75,85,112,119,123]
55	11	**Top-down management support**	Executive-level sponsorship of KMS initiatives	LF-TMS	[71]
D. PEOPLE-ORIENTED FACTORS (KMS-PF)			*Factors focusing on human interactions, engagement, and behavior in KMS processes*		
56	1	**Awareness**	Recognizing the value of KMS across the organization	PF-AWR	[24]
57	2	**Clear understanding**	Ensuring stakeholders comprehend KMS objectives	PF-CU	[14]
58	3	**Communication**	Effective sharing of knowledge across teams	PF-CMN	[2,8,21]
59	4	**ICT adoption**	Integration of information and communication technology for KMS deployment	PF-IA	[125]
60	5	**KMS self-efficacy**	Users' belief in their ability to use KMS	PF-KSE	[20]
61	6	**Knowledge workers' commitment**	Engagement of employees in KMS activities	PF-KWC	[20,90]
62	7	**People**	Employees driving KMS processes	PF-PPL	[8,20,112,116]
63	8	**Social capital**	Networks fostering KS	PF-SC	[13,19,20,121]
64	9	**Subjective norms**	Perception of KMS as standard behavior	PF-SN	[20]
65	10	**Task characteristics**	Features of tasks influencing KMS usage	PF-TC	[94]
66	11	**Team**	Collaborative groups advancing KMS objectives	PF-TM	[8,14,112]
67	12	**Training**	Educating staffs on KMS and practices	PF-TRN	[33,41,70,112,123]
68	13	**Trust**	Confidence in KMS and shared knowledge	PF-TRS	[7,20,112]
69	14	**User feedback**	Input from users to improve KMS	PF-UF	[24]
70	15	**User involvement**	Engaging users in KMS design and implementation	PF-UI	[41]
71	16	**User motivation**	Encouraging user participation in KMS processes	PF-UM	[30,40,71,90]
72	17	**User requirement**	Understanding what users need from KMS	PF-UR	[127]
73	18	**Voluntary use**	Adoption of KMS without compulsion	PF-VLN	[30,118]
E. KNOWLEDGE-ORIENTED FACTORS (KMS-KF)			*Factors pertaining directly to knowledge acquisition, management, and dissemination*		
74	1	**Best practice**	Proven strategies for effectively managing or sharing knowledge	KF-BP	[8]
75	2	**Community of practice**	Groups sharing knowledge and expertise	KF-CP	[11,31]
76	3	**KM processes**	Procedures for acquiring, sharing, and using knowledge	KF-KP	[45,94]
77	4	**Knowledge acquisition**	Gathering new knowledge for the organization	KF-KAQ	[40]
78	5	**Knowledge architecture**	Structure organizing how knowledge is stored and accessed	KF-KAR	[70]
79	6	**Knowledge assets**	Intellectual property and knowledge resources	KF-KAS	[9]
80	7	**Knowledge audit**	Assessing existing knowledge and gaps	KF-KAD	[70]
81	8	**Knowledge characteristics**	Traits influencing how knowledge is managed	KF-KCR	[20]
82	9	**Knowledge content quality**	Ensuring accurate and relevant knowledge	KF-KCQ	[5,7,8,21,29,30,57,95,97,126]
83	10	**Knowledge conversion**	Transforming knowledge into actionable insights	KF-KCN	[21]
84	11	**Knowledge credibility**	Trustworthiness of shared knowledge	KF-KCD	[25]
85	12	**Knowledge definition**	Clear identification of what constitutes knowledge	KF-KDF	[8]
86	13	**Knowledge dissemination**	Distributing knowledge across the organization	KF-KDM	[40]
87	14	**Knowledge evaluation**	Assessing the value and relevance of knowledge	KF-KE	[117]
88	15	**Knowledge infrastructure**	Knowledge concepts relating to systems and structures supporting KMS	KF-KI	[8]
89	16	**Knowledge map fit**	Matching knowledge sources to organizational needs	KF-KMF	[10,124]
90	17	**Knowledge sharing**	Exchanging knowledge across individuals or teams	KF-KSN	[2,9,21,34,70,82,117,120]
91	18	**Knowledge storage**	Efficient achievement of organizational knowledge	KF-KST	[70]
92	19	**Knowledge strategy**	Long-term approach for managing organizational knowledge	KF-KSG	[70]
93	20	**Knowledge structure**	Framework guiding how knowledge is organized	KF-KSR	[41,85]
94	21	**Knowledge transfer**	Moving knowledge between individuals or teams	KF-KTR	[117]
95	22	**Knowledge update**	Regularly refreshing knowledge to ensure relevance	KF-KUP	[16]
96	23	**Knowledge utilization**	Practical application of knowledge for decision-making	KF-KUT	[40,45]
97	24	**Matching users' needs**	Tailoring KMS to individual requirements	KF-MUN	[33]
98	25	**Network of experts**	Collaborative group offering specialized knowledge	KF-NEX	[70]
99	26	**Reduced loss of knowledge**	Preventing knowledge erosion or leakage	KF-RLK	[14]
100	27	**Relevance**	Ensuring knowledge is pertinent to organizational goals	KF-RLV	[75]

Note: The following factors are identical or almost synonymous: IS infrastructure/IT infrastructure/technical infrastructure/technological infrastructure/ICT adoption/technology; organizational learning environment/organizational environment/environment; top management commitment & support/management support/top management support/top management commitment; incentives & rewards/reward policy; knowledge content quality/information quality/knowledge quality; user motivation/extrinsic motivation; clear goals/vision clarity; social capital/social networking applications/socio-political influences; user/knowledge workers; IT capability/KMS capability; expected benefits/user perceived KMS benefits; voluntary use/voluntariness; content management/document management system; KMS design & usefulness/internet-based KMS architecture; KMS

support metrics/KMS ratings.
Readers' attention is drawn to identify the KMS-MFs based on key findings in table A3.

Table A3
KMS-MFs with indexing impacting OP

SN	Mediating Factors Affecting OP	Briefly Defined	Factor Indexing	Sources
1	Agility	Ability to adapt quickly to changes and market demands	MF-AG	[76]
2	Better recording	Improved documentation practices for accurate information capture	MF-BR	[59]
3	Better service	Enhanced customer support leading to increased satisfaction	MF-BS	[21]
4	Better work	Improved quality and efficiency in work processes	MF-BW	[59]
5	Collaboration	Teamwork and cooperation among employees for common goals	MF-CLB	[59]
6	Competitive advantage	Unique attributes that give an organization an edge over competitors	MF-CA	[41,45,119]
7	Confidence	Belief in abilities, enhancing decision-making and performance	MF-CN	[59]
8	Cost reduction	Decreasing expenses to improve profitability and financial efficiency	MF-CRD	[21,59,83]
9	Creativity	Generation of innovative ideas and solutions to problems	MF-CT	[94]
10	Customer loyalty	Commitment of customers to repeatedly choose a brand or service	MF-CL	[59]
11	Customer outcome	Results of customer interactions, impacting satisfaction and retention	MF-CO	[21,57]
12	Customer retention	Ability to keep existing customers over time	MF-CRT	[59]
13	Customer satisfaction	Measurement of how products/services meet or exceed expectations	MF-CS	[21,59,83]
14	Economic return	Profit gained from investments relative to their cost	MF-ER	[33,85]
15	Enhanced communication	Improved information sharing among employees and stakeholders	MF-ECM	[21,59]
16	Enhanced connectivity	Strengthened relationships and networks within and outside the organization	MF-ECN	[59]
17	Faster delivery to market	Quicker launch of products or services in the market	MF-FDM	[21]
18	Faster results	Quick achievement of desired outcomes or performance goals	MF-FR	[21]
19	Fewer employees	Reduction in workforce size while maintaining productivity levels	MF-FE	[21,59]
20	Financial performance	Assessment of an organization's profitability and financial health	MF-FP	[21]
21	Goal achievement	Accomplishment of predefined objectives and targets	MF-GA	[59]
22	Greater flexibility	Ability to adapt processes and strategies to changing conditions	MF-GF	[59]
23	Greater overall efficiency	Enhanced productivity leading to lower costs and improved outputs	MF-OE	[21,59]
24	Higher profitability	Increased earnings after expenses, indicating business success	MF-HP	[21]
25	Improved management	Enhanced leadership and organizational practices for better performance	MF-IM	[59]
26	Improved project management	More effective planning, execution, and monitoring of projects	MF-IPM	[21]
27	Incentives & rewards	Motivational benefits offered to encourage desired behaviors	MF-IR	[57,112,119]
28	Increased employee participation	Greater involvement of staff in decision-making and initiatives	MF-IEP	[21]
29	Increased sales	Growth in revenue through higher product or service transactions	MF-IS	[21]
30	Independence	Empowerment of employees to make decisions without excessive oversight	MF-IN	[59]
31	Innovation performance	Effectiveness in developing and implementing new ideas and solutions	MF-IP	[21,76,94]
32	KM activity	Actions and processes related to managing organizational knowledge	MF-KA	[31]
33	KMS decision performance	Effectiveness of knowledge management systems in aiding decisions	MF-KDP	[25,59]
34	KMS performance	Evaluation of how well knowledge management systems operate	MF-KP	[94,120]
35	KMS search	Effectiveness of retrieving information from knowledge management systems	MF-KSR	[25]
36	KMS usage benefits	Relative advantages gained from utilizing KMS	MF-KUB	[6,19,29,95,123,126]
37	Knowledge impact	Influence of knowledge on decision-making and performance	MF-KI	[83]
38	Knowledge satisfaction	Contentment with the knowledge available within the organization	MF-KST	[94]
39	Less repetition	Reduction of redundant tasks and processes in workflows	MF-LR	[59]
40	Market shares	Proportion of total sales in a market held by a company	MF-MS	[21]
41	Marketing performance	Effectiveness of marketing strategies in generating sales and engagement	MF-MP	[21]
42	More visible staff opinions	Increased acknowledgment and consideration of employee input and feedback	MF-VSO	[21]
43	Performance evaluation	Assessment of employee or organizational effectiveness against set standards	MF-PE	[25,59]
44	Performance satisfaction	Contentment with individual or team performance levels	MF-PST	[59]
45	Plausible financial data	Credible financial information supporting strategic decision-making	MF-PFD	[59]
46	Process flow	Sequence and efficiency of operational tasks and activities	MF-PF	[59]

(*continued on next page*)

Table A3 (*continued*)

SN	Mediating Factors Affecting OP	Briefly Defined	Factor Indexing	Sources
47	Processing speed	Rate at which tasks or information are handled and completed	MF-PSD	[59]
48	Productivity	Measure of output produced relative to input used	MF-PD	[59]
49	Reduced problems	Decrease in issues or obstacles faced during operations	MF-RP	[59]
50	Reduced stress	Lower levels of pressure and anxiety in the workplace	MF-RS	[59]
51	Shorter problem solving time	Quicker resolution of issues and challenges	MF-SPS	[21]
52	Shorter proposal time	Faster preparation of proposals for projects or contracts	MF-SPT	[21]
53	Strategic ability	Capability to formulate and execute effective strategies	MF-SA	[59]
54	Strategic positioning	Placement of the organization in the market for competitive advantage	MF-SP	[21,59]
55	Supplier satisfaction	Contentment of suppliers with the relationship and terms of engagement	MF-SS	[83]
56	Time saving	Reduction in time spent on tasks and processes	MF-TS	[21,59]
57	Time to market	Duration requir [21]ed to bring a product or service to market	MF-TM	[21]
58	Usage intention	Likelihood of users to engage with a system or service	MF-UI	[126]
59	User satisfaction	Contentment of users with their experience and outcomes	MF-US	[5,7,10,11,19,29,40,59,67,83,97,126]
60	Web usage attitude	User perception and behavior towards online platforms and tools	MF-WUA	[59,118]

Note: Competitive advantage = competitiveness; cost saving = cost reduction; innovation performance = innovativeness; user satisfaction = employee satisfaction; enhanced connectivity = enhanced internet access; KMS usage benefits = expected benefits/net benefits/relative advantage are considered as equilateral influence.

Table A4
Frequency of publications

Sl. No.	Acronym	Journal Name***	Frequency
1	IEEE*	Conference Paper	5
2	JKM	Journal of Knowledge Management	3
3	IGI Global**	Book Chapter	3
4	KMRP	Knowledge Management Research & Practice	2
5	IJKM	International Journal of Knowledge Management	2
6	IBIMA	Conference Paper	2
7	CHB	Computers in Human Behavior	2
8	MISQ	MIS Quarterly	2
9	VJIKMS	VINE Journal of Information and Knowledge Management Systems	1
10	HILJ	Health Information and Libraries Journal	1
11	KPM	Knowledge and Process Management	1
12	IMDS	Industrial Management & Data Systems	1
13	TQMBE	Total Quality Management and Business Excellence	1
14	EBR	Economic and Business Review	1
15	Heliyon	Heliyon	1
16	USCM	Uncertain Supply Chain Management	1
17	DIB	Data in Brief	1
18	RESTI	Jurnal RESTI	1
19	HSM	Human Systems Management	1
20	GKMC	Global Knowledge Memory and Communication	1
21	Idea Group**	Book Chapter	1
22	IJAIS	International Journal of Applied Information Systems	1
23	KBJ	KASBIT Business Journal	1
24	WASJ	World Applied Sciences Journal	1
25	IJEBM	International Journal of Engineering Business Management	1
26	ISRE	Information Systems Research	1
27	AJBAS	Australian Journal of Basic and Applied Sciences	1
28	UIS	Conference Paper	1
29	TQMBE	Total Quality Management & Business Excellence	1
30	Technovation	Technovation	1
31	KMEL	Knowledge Management & E-Learning: An International Journal	1
32	ECIS	European Conference	1
33	EBR	European Business Review	1
34	JGITM	Journal of Global Information Technology Management	1
35	IMDS	Industrial Management & Data Systems	1
36	JCIS	Journal of Computer Information Systems	1
37	ACM	Conference Paper	1
38	CAIS	Communications of the Association for Information Systems	1
39	JATIT	Journal of Theoretical and Applied Information Technology	1
40	IJET	International Journal of Engineering & Technology	1
41	IJMEDINF	International Journal of Medical Informatics	1
42	BPMJ	Business Process Management Journal	1
43	PCS	Procedia Computer Science	1

(*continued on next page*)

Table A4 (*continued*)

Sl. No.	Acronym	Journal Name***	Frequency
44	IIS	Issues in Information Systems	1
Total			**57**

Table A5
Country-wise publication distribution

Sl. No.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
Name of country	Malaysia	UAE	Vietnam	Indonesia	USA	China	Ghana	Jordan	Australia	South Africa	Iran	Korea	New Zealand	Peru	Thailand
Frequency	7	3	1	3	14	1	1	2	2	1	5	1	1	1	1
Sl. No.	16	17	18	19	20	21	22	23	24	25	26	27	28	29	
Name of country	Egypt	Saudi Arabia	Pakistan	Taiwan	Bahrain	Qatar	Oman	Hong Kong	Ireland	Bahrain	Qatar	Kuwait	Singapore	Sweden	
Frequency	1	2	1	7	1	1	2	1	2	1	1	1	2	1	

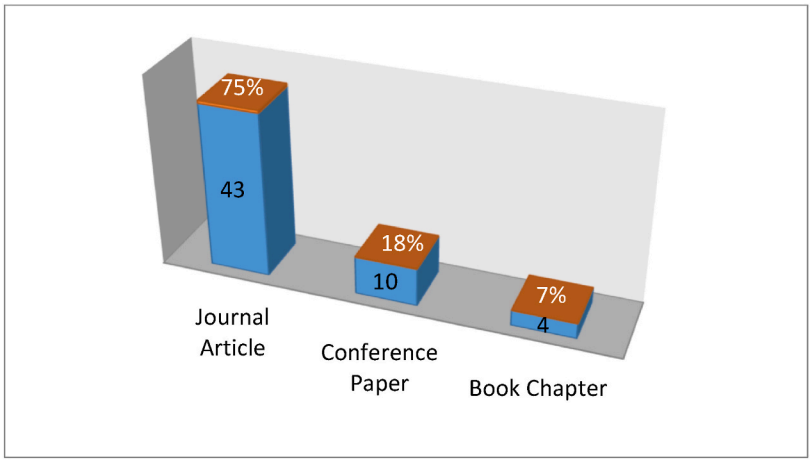

Fig. A1. Types of publications

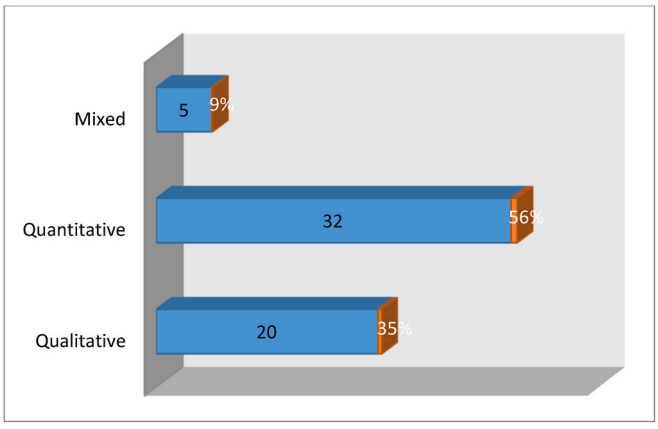

Fig. A2. Types of methods used.

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