IDENTIFYING KNOWLEDGE MANAGEMENT STRATEGIES FOR KNOWLEDGE MANAGEMENT SYSTEMS

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ABSTRACT

The application of knowledge management (KM) strategies help determine how an organization manages knowledge, data, and the use of information. Some scholars suggest that KM systems are vital for securing and maintaining organizational success; others assert that a company’s KM system should strongly reflect its internal competitive strategy. The main purpose of this study is to make a distinction between strategies and systems and to articulate distinct KM strategies. While previous researchers have detailed what a KM system should embody, scholars have yet to compile and express the nuances of KM systems available for execution into actual strategies. This qualitative, literature review outlines four KM systems (KM Reward, Tacit Collection, KM Integration, Social Media KM) and their respective strategies. The result of this paper provides practical pathways for organizations to identify appropriate KM strategies for KM systems.

We answer the following research questions:
• What are the knowledge management systems?
• What is the best knowledge management system for organizations to use?
• What are the outcomes of knowledge management system best practices?

Keywords: knowledge sharing, organizational performance, incentive design, implicit knowledge collection, social media knowledge management strategy, knowledge integration

JEL classification: M15, L22, O39
Paper type: Research article

INTRODUCTION

Shortly before World War II, Vannevar Bush claimed that files should be accessible and stored according to how the human mind works, meaning by association (Nyce & Kahn, 1989), and stated, “Knowledge that cannot be selected is lost” (p. 216). Bush developed Memex, a knowledge management (KM) system, in response to a need to organize the growing scientific literature (Nyce & Kahn, 1989). Management theorists developed various techniques to overcome managerial problems and improve individual and collective performance within organizations (Ferreira et al., 2018). KM continued to evolve into the 1970s, when industrialization changed the organization of business structures (Geisler & Wickramasinghe, 2015).

Organizations rely on effective management and knowledge at every stage of the business cycle (Mia & Chowdhuary, 2021). Knowledge management systems are essential building blocks of a business’s overall
success formula and strategy execution shows where an organization excels, survives, or succumbs to external pressures (Twum, 2021).

When research accumulates on a topic, there is a need to review the literature to provide a high-level view of the scholarship for a specific period. Despite older literature reviews on KM systems, there is a need for more current research (Ouriques et al., 2019). In Burley’s (2022) study, 26% of a survey’s respondents reported a belief that KM systems could improve performance by 40%. Thus, it is essential to review the literature and develop an overview of current data and information.

There is a growing awareness of the importance of gathering, locating, capturing, and sharing collective knowledge and expertise. Societies are developing effective and efficient KM methods to address problems and benefit from opportunities (Tiwari, 2022), making KM increasingly vital. This review provides a current look at the exponential growth of literature and research on KM. This study contributes to the KM body of knowledge by presenting a broad range of KM systems, analyzing them, and categorizing them. We summarize the relevant literature, identify gaps, and suggest topics for future research. The following research questions guided the study:

High-level question: What are the knowledge management systems?

RQ1: What is the best knowledge management system for organizations to use?

RQ2: What are the outcomes of knowledge management system best practices?

LITERATURE REVIEW

In this paper, knowledge, data, and information are interchangeable. Based on the scope of KM research, we categorized academic publications and found four primary KM systems.

2.1. Knowledge Management Reward

Only some KM endeavours are successful, regardless of the importance a company places on knowledge collection or reporting (Friedrich et al., 2020). Individuals might resist knowledge sharing or reporting due to their lack of understanding of a KM system, the inconvenience and time it takes, or not wanting to use it. Friedrich et al. (2020) identified several motives for knowledge-sharing, including altruism, self-efficacy, recognition, conformity, and reputation (table 1). Despite the risks of Friedrich et al.’s model, such as unnecessary rivalry between coworkers, anxiety based on poor ratings, and a tendency to lie to obtain better results, there are significantly more benefits to sharing knowledge. Among the advantages are creating visibility for a group to see their progress and allowing them to create their own goals, receiving immediate gratification for groups that perform well, supporting comparisons between coworkers, and opening conversations for best practices among similar groups (Friedrich et al., 2020). Because of these findings, researchers have embarked on studies to motivate and impact the contributors to knowledge (Iskandar et al., 2020).
Although no researchers have articulated KM reward strategies, several studies on a KM reward system, incentive design, and gamification have found positive results on engagement, motivation, and performance regarding KM. Gamification refers to the use of game design elements to encourage knowledge sharing motivation and productivity (Sampaio et al., 2019). Iskandar et al. (2020) developed an incentive design system, in which users receive points for knowledge sharing, to replace a standing KM award system, where a maximum of 12 people receive a tier-divided contributor award. Regardless of the two systems’ nuances, this study supports using the KM award and incentive design to increase employees’ motivation to use a KMS (Iskandar et al., 2020). Because of the similar intentions of gamification, incentive design system, and the KM award, this paper refers to all three as KM reward.

According to Friedrich et al. (2020), a KM reward is a good approach to increasing employee motivation. In addition, Endramanto et al. (2021) found that implementing a gamification component into a KM system could increase the rate at which people engage.

<table>
<thead>
<tr>
<th>Author(s) and year</th>
<th>Method</th>
<th>Research question</th>
<th>Findings</th>
<th>Summative outcome</th>
</tr>
</thead>
<tbody>
<tr>
<td>Iskandar et al., 2020</td>
<td>Quantitative</td>
<td>To what extent does the Point Incentive System application impact KMS, particularly on the number of knowledge contributors and the total number of contents acquired on the system?</td>
<td>The number of user contributors increased by 34.92%, and the number of contents stored on the KM portal increased by 68.85%. The Point Incentive System effectively motivated employees to share their knowledge and use the KM Portal.</td>
<td>Applying the KM Point Incentive System is more successful in promoting employees’ motivation to use a KM system.</td>
</tr>
<tr>
<td>Durinik, 2015</td>
<td>Qualitative</td>
<td>How can companies benefit from implementing gamified KMS?</td>
<td>Game design elements enhance KMS. Psychological mechanisms drive user behavior and attitudes when using gamified KMS.</td>
<td>Gamification is a way of enhancing KM that stems from increasing user engagement, content creation, and satisfaction.</td>
</tr>
<tr>
<td>Sampaio et al., 2019</td>
<td>Qualitative</td>
<td>To what extent can gamification have an impact as a dynamic facilitator of KM?</td>
<td>Gamification encourages the creation, transfer, and sharing of knowledge in the organization.</td>
<td>Using gamification in KM positively impacts employee motivation and involvement with these systems.</td>
</tr>
<tr>
<td>Endramanto et al., 2021</td>
<td>Qualitative</td>
<td>What are the uses and benefits of incorporating gamification into the company’s management system?</td>
<td>Activity diagrams and use case diagrams assist in the design of the business process of the system.</td>
<td>Implementing gamification and incorporating it with the KM system could be the solution to increasing the company’s engagement rate.</td>
</tr>
</tbody>
</table>
Whereas a system is a group of interacting and interrelating objects that function together (Jia, 2020), a strategy is a pattern of decisions that sets an organization’s long-term direction (Devinney & Dowling, 2020). This study found that scholars often use KM strategies and KM systems interchangeably. We seek to differentiate between the two. Ferreria et al. referred to KM strategy as the overall approach an organization takes to align knowledge resources to carry out KM activities. In contrast, KM systems refers to information systems used to collect, manage, store, transfer, and apply knowledge (Santoro et al., 2018).

With the KM reward strategy, leaders incorporate and implement studies from the KM reward system or gamification system. The strategy comprises four stages (see Figure 1).

<table>
<thead>
<tr>
<th>Author(s) and year</th>
<th>Method</th>
<th>Research question</th>
<th>Findings</th>
<th>Summative outcome</th>
</tr>
</thead>
<tbody>
<tr>
<td>Shpakova et al., 2016</td>
<td>Qualitative</td>
<td>Why gamification should be taken seriously in KM and how it could benefit KM?</td>
<td>A gamification approach can have a sustaining impact on KM.</td>
<td>Gamification can support flexibility, facilitate transparency and trust, visualize skills and competencies, and promote collaboration among knowledge workers.</td>
</tr>
<tr>
<td>Friedrich et al., 2020</td>
<td>Qualitative</td>
<td>What are the effects of game mechanics on motivation and knowledge-sharing behavior? What are the advantages and risks of implementing game components?</td>
<td>Implementing game components in KMS can bring advantages such as increased engagement and improved knowledge sharing. There are also risks associated with gamification, such as potential misuse of the system and decreased motivation.</td>
<td>Gamification has proven to be a feasible approach to increasing employee motivation.</td>
</tr>
</tbody>
</table>

Figure 1 Knowledge Management Reward Strategy

Source: developed by the authors
In the planning stage, knowledge managers identify key performance indicators (KPIs), assign metrics to KPIs, find unique identifiers (if any) across the data for each participant group, establish a data/knowledge collection site, and understand the organization chart. The KPIs, the performance measurement metrics, will ultimately influence the efficiency and the organization’s overall productivity (Sampaio et al., 2019). In the design stage, knowledge managers develop a grading system, select technology, collaborate with leadership to develop award and punitive outcomes, and identify reporting frequency. Knowledge managers should also create instructional documents with legends to provide an understanding of the gamification system. Third, in the execution stage, knowledge managers create a dashboard or visual tool for sharing overall progress and participation levels, communicate outcomes, and rank by alerts. Finally, in the review stage, knowledge managers provide participants with feedback to improve their score or rank and review KPIs and metrics with leadership to ensure fairness.

2.2. Knowledge Integration

Knowledge integration involves knowledge transfer across organizational boundaries for sharing and application (Haddad & Bozdogan, 2009). Based on Haddad and Bozdogan (2009), we propose an operational definition of knowledge integration along with systematic identification and classification of the strategies, practices, channels, and mechanisms for integrating different types of knowledge across organizational boundaries. KM integration is an emerging discipline focused on transferring and combining knowledge from multiple sources to solve complex tasks and problems (Haddad & Bozdogan, 2009). Integration occurs by combining common variables (or unique identifiers) within the information and keeping all data in a centralized location. A newly created, unified image enables the visualization of information in charts, graphics, or a dashboard. Integrating data does not create new data but is a simplified way of accessing data and finding everything in one place.

Although knowledge integration can promote innovation, promote simplicity, and unify teams, it can also create confusion and an inflexible environment. Other challenges include constraints on transactive memory, insufficient mutual understanding, failure to share and retain contextual knowledge, and the inflexibility of organizational ties (Alavi & Tiwana, 2002). More positively, Salunke et al. (2019) found a link between innovation and effective information integration. Salunke et al. tested how the relationship between knowledge integration capabilities and service innovation creates and sustains a competitive advantage. In addition, researchers have explored various benefits, such as increased product development speed, productivity, quality, firm growth, sustainable competitive advantage, team performance, product diversification, and knowledge cocreation (Zahra et al., 2020). We developed a KM data integration strategy based on previous research to promote the advantages and mitigate the challenges of knowledge integration.
Table 2. Knowledge Integration Literature Review

<table>
<thead>
<tr>
<th>Author(s) and year</th>
<th>Method</th>
<th>Research question</th>
<th>Findings</th>
<th>Summative outcome</th>
</tr>
</thead>
<tbody>
<tr>
<td>Haddad &amp; Bozdogan, 2009</td>
<td>Qualitative</td>
<td>What is knowledge integration in large-scale organizational networks using an extensive review of the pertinent literature on knowledge in the organization?</td>
<td>Knowledge integration is an emerging discipline in organizational science that focuses on transferring and combining knowledge from multiple sources to solve complex tasks and problems.</td>
<td>Knowledge integration in this context involves a transference of knowledge from multiple sources in the organizational network to where it is needed, combining it with existing knowledge before it can be applied to accomplish complex tasks and solve major problems.</td>
</tr>
<tr>
<td>Zahra et al., 2020</td>
<td>Qualitative</td>
<td>How can diverse perspectives enrich future scholarship and our understanding of knowledge integration?</td>
<td>Micro- and macro-organizational perspectives are important for understanding knowledge integration.</td>
<td>Knowledge integration is essential for the success of a firm.</td>
</tr>
<tr>
<td>Salunke et al., 2019</td>
<td>Qualitative</td>
<td>How can business-to-business service firms organize and manage knowledge to deliver new value-adding solutions that lead to a competitive advantage?</td>
<td>Knowledge integration capability is a key factor in service innovation-based competitive strategy.</td>
<td>Knowledge integration capability is central to service innovation-based competitive strategy.</td>
</tr>
<tr>
<td>Chen et al., 2012</td>
<td>Qualitative</td>
<td>What is the basis for analyzing how each knowledge integration stage influences an IT enterprise’s innovation capability?</td>
<td>Knowledge integration is the key to maintaining sustained innovation capability in the fiercely competitive market environment.</td>
<td>Knowledge integration positively affects IT enterprises’ technological, managerial, organizational, institutional, and market innovation</td>
</tr>
</tbody>
</table>

Source: developed by the authors

The KM data integration strategy has two processes: planning and completion. In the planning stage, the knowledge manager decides on the goals of integration, identifies common knowledge, recognizes unique identities and how to merge them, selects technology platforms, and sends all stakeholders a public service announcement (PSA) of planned data to merge. In the completion phase, knowledge managers delete extra data, inform stakeholders about updated information links and locations, archive old information for future reference, and send a PSA of completed data to merge.
2.3. Tacit Knowledge Collection

KM comprises three types of knowledge: tacit, explicit, and implicit (Nickols, 2010). Haddad and Bozdogan (2019) defined explicit knowledge as “the part of knowledge that is readily articulated and has been or can be captured in written or electronic format, such as low-level information in the form of raw data or situated information in the form of scientific principles” (p.17). Implicit knowledge is intuitive information that has not and cannot be articulated (Nickols, 2010). In contrast, tacit knowledge is learned from personal experience and can be articulated. According to Haddad and Bozdogan, “Tacit knowing is like riding a bicycle; it is knowledge acquired through experience and becomes an innate skill that we cannot easily describe to others except through personal demonstration” (p. 17).

Some researchers have identified knowledge sharing as a way for organizations to expand intellectually (Rumanti et al., 2019). Because knowledge sharing is an essential organizational activity, research on knowledge-sharing types has increased in the 21st century (Ahmad & Karim, 2019). Recent findings show that explicit knowledge alone is insufficient for organizational endeavors, as tacit dimensions of expert knowledge have become increasingly important (Döringer, 2021). There are different views in the literature (table 3) on how much tacit knowledge is transferable or shareable, with most authors finding that individuals transfer and share at least part of their tacit knowledge with others through observation (e.g., watching an artist draw). Other researchers have identified tacit knowledge as a personal skill acquired with little help from others and unable to be taught (Haddad & Bozdogan, 2019).

Personal interaction is the most significant indicator of knowledge-sharing in the tacit knowledge construct (Rumanti et al., 2019). Because tacit knowledge is difficult to record, we looked at artificial intelligence as an alternative to assist with tacit knowledge collection. In a case study of KM, Sanzogni et al. (2017) identified artificial intelligence (AI) technologies as collective forms of tacit knowledge. Relational tacit knowledge, or how people relate to one another, is consciously or subconsciously hidden. Somatic tacit knowledge involves
physical human actions that laymen cannot easily explain. Collective tacit knowledge is knowledge intertwined within a social environment, such as a specific language dialect within a localized area. Not all forms of tacit knowledge can be collected; relational and somatic tacit knowledge could but collective tacit knowledge could not. Moreover, AI can only assist KM in collective tacit knowledge because machines cannot socialize or be deeply entrenched within society (Sanzogni et al., 2017).

<table>
<thead>
<tr>
<th>Author(s) and year</th>
<th>Method</th>
<th>Research question</th>
<th>Findings</th>
<th>Summative outcome</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rumanti et al., 2019</td>
<td>Qualitative</td>
<td>How is the innovation capability of a company influenced by knowledge sharing with the perspective of both tacit and explicit knowledge?</td>
<td>Knowledge sharing is necessary to boost innovation capability. Both tacit and explicit knowledge is important for knowledge sharing. The capacity to share knowledge, both tacitly and explicitly, is significantly influential towards the innovation capability of SMIs.</td>
<td>A company’s capacity to share knowledge is significant and influential towards the innovation capability of such a company, in this case, SMI.</td>
</tr>
<tr>
<td>Lam, 2022</td>
<td>Quantitative</td>
<td>Which explanations can be considered internal to the system using the Chomskyan notion of tacit knowledge?</td>
<td>Explanations in AI can be claims of tacit knowledge.</td>
<td>The only methods able to sufficiently establish tacit knowledge are those along the lines of Olah.</td>
</tr>
<tr>
<td>Sanzogni et al., 2017</td>
<td>Qualitative</td>
<td>How does tacit knowledge inform KM Space?</td>
<td>AI and KM are both important disciplines that can inform each other.</td>
<td>AI can inform the KM debate.</td>
</tr>
<tr>
<td>Jaharri et al., 2023</td>
<td>Qualitative</td>
<td>What are the opportunities associated with the implementation of emerging systems empowered by AI for KM?</td>
<td>AI capabilities can also be used to reengineer existing organizational processes.</td>
<td>Humans must nurture skills to take advantage of their artificial partners for KM.</td>
</tr>
</tbody>
</table>

Source: developed by the authors

Relational tacit knowledge can be elucidated and automated using neural networks (Sanzogni et al., 2017). One example is extracting corporate social responsibility values from the company website and matching these values to internal documents such as policies. Neural networks are local networks that attempt to mimic a human brain’s capability by simulating aspects of brain information systems while improving processing speed and learning abilities (Almari, 2020). Somatic tacit knowledge can also be collected using neural networks (Jarrahi et al., 2023). The literature suggests that individuals and organizations can create tacit knowledge by fostering predictive analytics via self-learning analytical capacities, recognizing previously unknown patterns, sifting through organizational data and discovering relationships, and developing new declarative knowledge.
2.4. Two-Part Strategy

The following are recommendations for managers to collect tacit knowledge (figure 3).

- Decide on an AI tool. AI tools vary and are dependent on the overall goal for their use. For example, managers often rely on tools such as BlueConic, Crayon, Helixa, and Invova for marketing knowledge and collection. In contrast, other tools are useful to collect knowledge and analyze data, such as Analytics, Google Analytics, Adobe Analytics, and Google Cloud.

- Decide on the AI roles and know how to use them in relationship to human roles. Jaharri et al. (2023) identified four AI roles—personal intelligent assistants, specialized intelligence, codification of knowledge, and know-how and know-what—aligned them to four roles of a KM specialist—personal KM, general intelligence, collaboration of knowledge, and know-why. Despite common beliefs that AI will replace humans in KM, Jaharri et al. analyzed the relationship between the two, finding that AI and humans have an instinct connection and complement each other. Specific to tacit knowledge, AI tools can assist organizations in finding unexpected connections from data and knowledge sets.

![Figure 3. Artificial Intelligence Two-Part Strategy](image)

**Note.** Adopted by authors in Jarrahi et al., 2023

2.5. Social Media Knowledge Management

With its wide-ranging impact and global appeal, social media is a tool increasingly used for knowledge sharing and a promising area of research (Ahmed et al., 2018). Social media capabilities include sharing text, videos, photos, and blogs with a wide audience. The most popular social media platforms are Facebook, Twitter, LinkedIn, Instagram, TikTok, and YouTube. Because many people use social media daily, organizations have
begun using the platforms as a part of their KMS. As the capabilities of social media evolve, so does its capacity to facilitate KM. Social media is a medium for knowledge-sharing to create awareness for the public and within businesses, higher education, and public health (Ahmed et al., 2018). In addition, social media is useful for marketing, recruiting, and operations to share knowledge with a wide range of people (Barnes, 2021). Mamorobela and Buckley (2018) defined KM strategy as a combination of social and technical systems, identifying social media’s ability to gather KM experts, opinions, and discussions and create a KM strategy on social media platforms.

2.6. **Human Resources/Recruiting**

KM entails storing and accessing information on current and future employees. In addition, KMS store information such as policies, instructional documents, and FAQs, making this information searchable without the help of human interaction. Social media platforms can be used to store information, attract the right talent, and deliver organization-wide messages and alerts.

2.7. **Marketing**

Marketing practices are always evolving, especially on social media. Before social media, businesses offered free white papers in exchange for contact information and heavily relied on email marketing. Now, companies use influencers and individuals to sell their products and services. Amid the ever-changing marketing climate on social media, KM can be highly beneficial. KM can help an organization with company operations knowledge, market research, and sales connection (Barnes, 2021).

2.8. **Operations**

Organizations using social media for operations primarily do so to provide customer service, gathering surveys from their target audience to monitor feedback and complaints. According to Ramanathan et al. (2017), social media reviews and service operations are directly related to customer satisfaction. An operational social media strategy requires companies to take social media seriously, monitor responses to reviews, and craft posts to keep audiences informed.

Ahmed et al. (2018) identified three knowledge-sharing activities: knowledge-seeking, knowledge-contributing, and social interactivity (table 4). From Ahmed et al.’s foundation, we have developed a comprehensive KMS (table 5).

<table>
<thead>
<tr>
<th>Table 4. Comprehensive Knowledge-Sharing Activities by Functions</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Activity</strong></td>
</tr>
<tr>
<td>Knowledge-seeking</td>
</tr>
<tr>
<td>Knowledge-contributing</td>
</tr>
<tr>
<td>Social interactivity</td>
</tr>
</tbody>
</table>

*Source: developed by the authors*
Table 5. Comprehensive Social Media Literature Review

<table>
<thead>
<tr>
<th>Authors, years</th>
<th>Method</th>
<th>Research question</th>
<th>Findings</th>
<th>Summative outcome</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nisar, 2018</td>
<td>Quantitative</td>
<td>To what extent can social media knowledge and learning benefits affect organizational performance?</td>
<td>Social media can positively affect organizational performance through embedded information and social communication.</td>
<td>Social media-based discussion groups positively affect organizational performance through embedded information and social communication.</td>
</tr>
<tr>
<td>Meneghello et al., 2020</td>
<td>Quantitative</td>
<td>How do processes and technologies satisfy the aim of researched analytics and actional intelligence?</td>
<td>Introducing a new method for collecting social data without prior knowledge of the sites.</td>
<td>A new method for collecting social data without any a priori knowledge of the sites is introduced.</td>
</tr>
<tr>
<td>Ahmed et al., 2018</td>
<td>Quantitative</td>
<td>How can we systematically review and access the current research regarding social media’s use in knowledge sharing?</td>
<td>A systematic literature review to analyze the current state of research regarding social media use for knowledge sharing.</td>
<td>Social media is increasingly used for knowledge sharing and giving a promising new area of research.</td>
</tr>
<tr>
<td>Zarei &amp; Jabbarzadeh, 2019</td>
<td>Qualitative</td>
<td>How can the factors of KM project success?</td>
<td>The number of research associated with KM in social media has grown exponentially in recent years.</td>
<td>A comprehensive review of the research associated with the effect of KM in social media.</td>
</tr>
</tbody>
</table>

Source: developed by the authors

METHODOLOGY

This research study entailed conducting a literature review on KM systems and strategies. Answering the research questions required identifying the best strategies and best practices for KMS selection and customization. We followed a three-stage process of literature search, critical appraisal, and data extraction.

3.1. Literature Search

The method began with creating a search strategy comprising inclusion and exclusion criteria, keywords, and sources of support; tracking the search; and choosing research papers to review. The number of studies that fit the inclusion criteria (i.e., articles focused on KM AI systems) was sufficient to achieve a reliable review; nonrelevant research (i.e., articles focused on KM AI systems) was omitted to avoid scope creep (see Section 3.2). The Google Scholar search included the keywords knowledge management strategies, artificial intelligence, AI, data integration, gamification, and implicit knowledge collection. Most articles were published from 2018–2022 with a few outliers to cover the history and foundation of KM.

3.2. Critical Appraisal

A thorough evaluation of the results reduced the sample to studies that fulfilled the inclusion requirements. In the final sampling process, we evaluated the search results specific to the keywords and the researchers’ direct or indirect findings to address the research questions.
3.3. Data Extraction

Data extraction is the process by which researchers pull out the essential information from study findings (Badham et al., 2022). To create the body of evidence supporting the research questions, we combined all results from the articles that satisfied the selection criteria. Reviewers utilize a standardized data extraction form to track all information relevant to the research questions, which they use in the synthesis process to draw findings.

3.4. Data Synthesis

We compiled the systematic review results from studies that met the inclusion criteria. The purpose of qualitative data synthesis is to analyze the strength of the evidence overall as well as the links between studies and within research, going beyond simple summarization (Badham et al., 2022).

RESULTS AND DISCUSSION

This section presents the literature review findings aligned with the research questions.

High-level question: What are the knowledge management systems?

After reviewing 20 relevant articles, we categorized and articulated four KM systems: reward, knowledge integration, tacit knowledge collection, and social media. Based on recommendations from the literature review, we created and assigned a KM strategy to each.

RQ1: What is the best knowledge management system for organizations to use?

Because an applicable KM strategy is heavily dependent upon organization goals, there is no one best KM strategy to use. A strategy can be selected based on the direction and function of an organization. Organizations can use Table 6 to help choose a strategy for their needs.

<table>
<thead>
<tr>
<th>Strategy</th>
<th>Technology required</th>
<th>Purpose</th>
<th>Outcome</th>
</tr>
</thead>
<tbody>
<tr>
<td>Reward system</td>
<td>Analytic software, database, data collection software</td>
<td>Compare groups, increase motivation</td>
<td>Visual of the status of groups</td>
</tr>
<tr>
<td>Knowledge and data integration</td>
<td>Data collection software</td>
<td>Create a centralized view of knowledge components</td>
<td>Organized database, overall picture, improved search results</td>
</tr>
<tr>
<td>Tacit knowledge collection and sharing</td>
<td>Database</td>
<td>Data collection</td>
<td>Community, personal interaction</td>
</tr>
<tr>
<td>Social media</td>
<td>Social media platform</td>
<td>HR, marketing, operation</td>
<td>Communicated externally</td>
</tr>
</tbody>
</table>

Table 6. Knowledge Management Strategies Overview

Source: developed by the authors

RQ2: What are the outcomes of knowledge management system best practices?

From the literature, we yielded KM best practice outcomes that focus on implementing KM strategies and systems. Table 7 shows best practices by source.
Table 7. Knowledge Management Best Practice Outcomes

<table>
<thead>
<tr>
<th>Best practice</th>
<th>Source</th>
</tr>
</thead>
<tbody>
<tr>
<td>“A successful knowledge management strategy implementation could only be achieved if organizations or institutions understand the roles and functions of knowledge. Implementing the strategies appropriately ensures good outcome and provide the utmost result in firms or institutions.”</td>
<td>Asiedu et al., 2022, p. 2</td>
</tr>
<tr>
<td>The alignment among business strategy, KMS, and HR strategy contributes positively to overall organizational performance.</td>
<td>Chaudhary, 2021</td>
</tr>
<tr>
<td>A KMS should provide an understanding of the sources of organizational knowledge, emphasize its role in value creation, and support the company’s internal business processes.</td>
<td>Kolyasnikov &amp; Kelchevaya, 2020</td>
</tr>
<tr>
<td>Introduced tacit KM strategy to reduce the cost of the disruption of the codification strategy and to avoid the internet and burdens of information.</td>
<td>Mia &amp; Chowdhuary, 2021</td>
</tr>
</tbody>
</table>

Source: developed by the authors

CONCLUSION

In the current dynamic and fast-changing environment, KMS are vital for achieving and maintaining organizational success (Russ, 2010) and strategy execution weighs heavily on organizational leadership (Twum, 2021). Researchers have supported that, overall, KM systems could use improvement, yet failed to articulate KM strategies that would support improvement. We reviewed the KM literature and articulated four strategies to help organizations improve their KM standing:

- A KM reward strategy increased employee motivation (Friedrich et al., 2020).
- A KM integration strategy is central to an organization’s identity.
- Because tacit knowledge is difficult to record, integrating AI with a tacit collection KMS is helpful.
- As social media capabilities evolve, so does the facilitation of a KM social media strategy.

In this literature review, we have also presented the overall best practices to use while developing a KMS. The limitations of this study includes: the use of English only articles and the use of open-sourced articles. This paper does not seek to address the cybersecurity or data protection elements of a Knowledge Management Strategy or System.

Our study contributes to the KM body of knowledge by providing a practical pathway to selecting KM strategies. Because KM is constantly evolving and becoming more complex, we propose that future researchers could assess the relationship between KM strategy variables and their impact on KM adoption.


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The authors declare no conflict of interest.

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