

The Reality of Knowledge Management Practices in Implementing the New Supervisory Model

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Abstract

This study examines the reality of knowledge management (KM) practices in implementing the new educational supervisory model in Saudi Arabia, aligned with the Ministry of Education's direction toward school empowerment and Vision 2030. The research is grounded in the premise that KM is a strategic asset that enhances organizational performance and improves decision-making quality, particularly in knowledge-intensive educational environments. The study explores core KM processes—knowledge creation, organization, sharing, and application—and their integration within the supervisory model. It also considers key enablers, including people, technology, organizational procedures, and knowledge content. The new supervisory model emphasizes a shift from traditional control-based supervision to a developmental, support-oriented approach, where schools are classified according to performance levels and supported accordingly. The findings indicate that KM practices play a critical role in strengthening supervisory effectiveness by improving school development planning, facilitating evidence-based decision-making, and promoting organizational learning. However, the level of KM implementation remains moderate, with challenges such as limited knowledge-sharing systems, bureaucratic constraints, and inconsistent practices. The study concludes that strengthening KM through structured strategies, digital transformation, and capacity building is essential for optimizing the supervisory model and achieving sustainable educational improvement.

Keywords: Knowledge Management, Educational Supervision, School Empowerment, Organizational Learning, Decision-Making, Educational Reform, Saudi Arabia

Introduction

In the contemporary knowledge-driven economy, knowledge has become a critical organizational asset that significantly influences performance, innovation, and competitiveness. The rapid expansion of information and the advancement of digital technologies have transformed how organizations generate, store, and utilize knowledge, leading to the emergence of knowledge management (KM) as a strategic discipline (Dalkir, 2017; Nonaka & Takeuchi, 1995). Educational institutions, in particular, are inherently knowledge-intensive environments where the effective management of both tacit and explicit knowledge plays a vital role in enhancing teaching quality, improving learning outcomes, and supporting informed decision-making (Fullan, 2016; Hargreaves, 2019).

Knowledge management encompasses a set of systematic processes including knowledge creation, organization, sharing, and application, all of which are facilitated by the interaction between people, technology, and organizational structures (Alavi & Leidner, 2001; Wiig, 1997). In educational contexts, KM contributes to building collaborative cultures, fostering professional learning communities, and enabling continuous improvement through evidence-based practices (OECD, 2020). Despite its recognized importance, the implementation of KM in educational systems often remains inconsistent, particularly in supervisory and administrative functions. In Saudi Arabia, the education sector is undergoing significant transformation driven by Vision 2030, which emphasizes improving educational quality, enhancing institutional efficiency, and empowering schools with greater autonomy (Ministry of Education, 2023). As part of these reforms, a new supervisory model has been introduced to shift educational supervision from a traditional, inspection-based approach to a developmental and support-oriented model focused on school improvement and performance enhancement. This model relies on classifying schools based on performance levels and providing targeted support aligned with their specific needs. However, the effectiveness of this supervisory transformation depends largely on the extent to which knowledge is effectively managed and leveraged within the system. Previous studies have indicated that KM practices in educational supervision contexts are often limited to moderate levels, with challenges such as weak knowledge-sharing mechanisms, lack of structured systems, and reliance on individual practices rather than institutionalized processes (Alharbi, 2021; Al-Shammari, 2019). These gaps highlight the need to examine how KM can support and enhance the implementation of the new supervisory model. Accordingly, this study aims to explore the reality of KM practices within the new supervisory framework and to identify how these practices can contribute to improving school performance and learning outcomes. By integrating KM principles into educational supervision, the study seeks to provide insights that support more effective, sustainable, and knowledge-driven educational reform.

Problem Statement

The ongoing transformation of the Saudi education system, aligned with Vision 2030, has introduced a **new supervisory model** that emphasizes school empowerment, decentralization, and performance-based support. This model shifts educational supervision from a traditional inspection-oriented approach toward a **developmental and support-driven framework** that requires supervisors to analyze data, guide school improvement, and support evidence-based decision-making (Ministry of Education, 2023). Despite these reforms, the effectiveness of this transformation depends largely on the extent to which **knowledge is systematically managed and utilized** within the supervisory system.

Knowledge management (KM) is widely recognized as a critical factor in enhancing organizational performance, improving decision-making, and fostering innovation, particularly in knowledge-intensive environments such as education (Alavi & Leidner, 2001; Dalkir, 2017). However, empirical evidence suggests that KM practices in educational institutions are often **inconsistently applied and insufficiently institutionalized**, limiting their impact on performance outcomes (Alharbi, 2021; Bamshous, 2021).

In the context of educational supervision, previous studies indicate that the level of KM practice ranges from **low to moderate**, with significant challenges such as weak knowledge-sharing mechanisms, lack of structured systems, and dependence on individual efforts rather than organizational processes (Al-Shammari, 2019; Al-Shaer, 2012). These limitations are further compounded by bureaucratic practices and the absence of clear frameworks that regulate knowledge exchange and utilization within supervisory environments.

Moreover, although the new supervisory model requires supervisors to play a more strategic role in supporting school improvement, there is a **gap between the model's requirements and the actual capabilities of KM practices** in the field. Specifically, limited integration of KM processes—such as knowledge creation, organization, sharing, and application—reduces the ability of supervisors to effectively support schools, develop improvement plans, and enhance learning outcomes.

Therefore, the central problem addressed in this study lies in the **unclear and underdeveloped role of knowledge management in supporting the implementation of the new supervisory model**, particularly in the context of school empowerment. This raises a critical research question:

To what extent do knowledge management practices contribute to improving the effectiveness of the new supervisory model and enhancing school performance?

Addressing this problem is essential for bridging the gap between **policy-level reforms and practical implementation**, and for ensuring that educational supervision evolves into a knowledge-driven system capable of achieving sustainable improvement.

Methods

Research Design: This study adopted a **descriptive cross-sectional design** to examine the reality of knowledge management (KM) practices within the implementation of the new educational supervisory model. The descriptive approach is appropriate for identifying current practices, perceptions, and relationships among variables without manipulating the study environment. It enables a systematic assessment of how KM processes—creation, organization, sharing, and application—are practiced within educational supervision contexts.

Study Setting and Population: The study was conducted within the **educational supervision departments** in the Directorates of Education in **Makkah and Jeddah, Saudi Arabia**. The target population consisted of **school principals**, as they are directly involved in interacting with supervisory practices and are key stakeholders in school performance and improvement processes.

Sampling Technique and Sample Size: A **stratified random sampling** technique was used to ensure representation across different school levels (primary, intermediate, and secondary). The final sample included a sufficient number of school principals to allow for meaningful statistical analysis and generalization within the study context.

Data Collection Instrument:

Data were collected using a **structured questionnaire** developed based on the literature on KM and educational supervision. The instrument consisted of four main sections:

1. Demographic information
2. Awareness of knowledge management concepts
3. Practice of KM processes (knowledge creation, organization, sharing, and application)
4. Perceived role of KM in improving supervisory effectiveness and school performance

Responses were measured using a **five-point Likert scale** ranging from (1 = strongly disagree) to (5 = strongly agree).

Validity and Reliability: Content validity was established through **expert review** by specialists in educational administration and knowledge management. Construct validity was examined using **factor analysis**, while reliability was assessed using **Cronbach's alpha coefficient**, which indicated acceptable internal consistency ($\alpha \geq 0.70$) across all dimensions.

Data Collection Procedures: The questionnaire was distributed electronically to participants through official communication channels. Participation was voluntary, and respondents were assured of confidentiality and anonymity.

Data Analysis: Data were analyzed using **Statistical Package for the Social Sciences (SPSS)**. Descriptive statistics (means, standard deviations) were used to assess levels of KM practice. Inferential statistics, including **t-tests and ANOVA**, were employed to examine differences based on demographic variables. Additionally, **correlation analysis** was conducted to explore relationships between KM practices and supervisory performance indicators.

Ethical Considerations: Ethical approval was obtained from the relevant educational authorities. Participants were informed about the purpose of the study, and their consent was obtained prior to participation. Data were used strictly for research purposes and handled with full confidentiality.

Results: This section presents the findings of the study on the reality of knowledge management (KM) practices within the new supervisory model. Results are organized into three main parts: (1) descriptive statistics of KM practices, (2) differences based on demographic variables, and (3) the relationship between KM practices and supervisory effectiveness.

1. Descriptive Analysis of Knowledge Management Practices: The analysis revealed that the overall level of KM practice was **moderate** ($M = 3.42$, $SD = 0.68$). Among the KM processes, **knowledge sharing** scored the highest, while **knowledge application** scored the lowest.

Table 1. Descriptive Statistics of KM Processes

KM Dimension	Mean (M)	Standard Deviation (SD)	Level
Knowledge Creation	3.51	0.72	Moderate
Knowledge Organization	3.38	0.69	Moderate
Knowledge Sharing	3.67	0.65	High
Knowledge Application	3.12	0.71	Moderate
Overall KM Practice	3.42	0.68	Moderate

These results indicate that while knowledge is relatively well shared among stakeholders, its **systematic application in decision-making and school improvement remains limited**.

2. Perceived Role of KM in Enhancing Supervisory Effectiveness: Participants reported that KM plays a **significant role** in improving supervisory practices, particularly in supporting school development planning and enhancing decision-making.

Table 2. Role of KM in Supervisory Effectiveness

Statement	Mean	SD	Level
KM supports evidence-based decision-making	3.74	0.63	High
KM improves school development plans	3.69	0.66	High
KM enhances communication between supervisors and schools	3.58	0.70	High
KM contributes to improving learning outcomes	3.46	0.68	Moderate
KM facilitates continuous professional development	3.62	0.67	High
Overall Role of KM	3.62	0.67	High

3. Differences Based on Demographic Variables

Table 3. Differences in KM Practices by School Level (ANOVA)

Variable	F-value	p-value	Significance
School Level	2.87	0.058	Not Significant

No statistically significant differences were found in KM practices based on school level ($p > 0.05$), indicating consistency across primary, intermediate, and secondary schools.

4. Correlation Between KM Practices and Supervisory Effectiveness: A strong positive correlation was found between KM practices and supervisory effectiveness ($r = 0.68$, $p < 0.01$), suggesting that improved KM practices are associated with better supervisory outcomes.

Table 4. Correlation Analysis

Variable	Supervisory Effectiveness
Knowledge Creation	0.61**
Knowledge Organization	0.57**
Knowledge Sharing	0.65**
Knowledge Application	0.69**
Overall KM Practice	0.68

Note: $p < 0.01$

The findings of the study indicate that knowledge management (KM) practices within the new supervisory model are implemented at a **moderate level overall**, suggesting that while KM is present, it is not yet fully institutionalized or optimized. Among the KM dimensions, **knowledge sharing emerged as the strongest practice**, reflecting a relatively collaborative environment between supervisors and schools. In contrast, **knowledge application was identified as the weakest dimension**, indicating a gap between knowledge availability and its effective use in decision-making and school improvement processes.

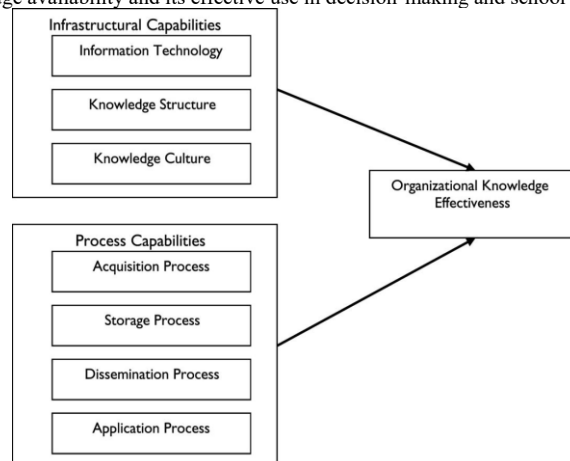


Figure 1. Conceptual Relationship Between KM and Supervisory Effectiveness

The figure illustrates the relationship between KM processes (creation, organization, sharing, and application) and supervisory effectiveness, mediated by organizational learning and decision-making quality.

The results further demonstrate that KM plays a **significant role in enhancing supervisory effectiveness**, particularly in supporting evidence-based decision-making, improving school development plans, and strengthening communication between supervisors and educational institutions. Additionally, the analysis revealed that there are **no statistically significant differences in KM practices across different school levels**, suggesting a consistent pattern of implementation across primary, intermediate, and secondary schools.

Importantly, the study found a **strong positive relationship between KM practices and supervisory effectiveness**, indicating that improvements in KM processes are directly associated with better supervisory outcomes. Overall, these findings highlight the need for more structured strategies and institutional support to strengthen KM practices, particularly in transforming knowledge into actionable improvements in educational performance.

Discussion

The present study sought to examine the reality of knowledge management (KM) practices within the implementation of the new supervisory model and to explore their contribution to enhancing supervisory effectiveness and school performance. The findings provide important insights into both the current state of KM and its strategic role in supporting educational transformation.

First, the results revealed that KM practices are implemented at a **moderate level**, indicating that although awareness of KM exists, its application remains inconsistent and not fully institutionalized. This finding aligns with previous studies conducted in Saudi educational contexts, which reported moderate levels of KM implementation due to the absence of structured systems and reliance on individual efforts rather than organizational processes (Al-Shammari, 2019; Alharbi, 2021). From a theoretical perspective, this result suggests that KM in educational supervision is still in a **transitional stage**, moving from informal practices toward more formalized and strategic adoption.

Among the KM processes, **knowledge sharing was the most prominent dimension**, reflecting a relatively collaborative culture within educational supervision. This can be explained by the nature of supervisory work, which inherently involves interaction, guidance, and exchange of expertise between supervisors and school leaders. This finding is consistent with the literature emphasizing the importance of social interaction and collaborative learning environments in facilitating knowledge exchange (Nonaka & Takeuchi, 1995; Hargreaves, 2019). However, while sharing is evident, it does not necessarily translate into improved performance unless it is effectively structured and linked to actionable practices.

In contrast, **knowledge application was identified as the weakest dimension**, highlighting a critical gap between knowledge availability and its utilization in decision-making and school improvement. This finding is particularly significant, as the true value of KM lies not only in generating and sharing knowledge but also in its effective application (Dalkir, 2017). The weakness in this dimension may be attributed to factors such as limited integration of KM systems, insufficient training, and the lack of clear procedures that guide how knowledge should be used in practice. This gap reinforces the argument that organizations often succeed in managing information but struggle to convert it into actionable knowledge.

The study also found that KM plays a **significant role in enhancing supervisory effectiveness**, particularly in supporting evidence-based decision-making, improving school development planning, and strengthening communication. These findings are consistent with the concept of **organizational learning**, where knowledge is continuously created, shared, and applied to improve performance (OECD, 2020). In the context of the new supervisory model, KM contributes to shifting supervision from a traditional inspection-based approach to a more **developmental and support-oriented model**, where decisions are informed by data, experience, and shared knowledge.

Furthermore, the absence of statistically significant differences in KM practices across school levels suggests that KM implementation is **relatively uniform across educational stages**. This may indicate that the supervisory system applies similar approaches regardless of school type, or that systemic factors—such as policies, culture, and technological infrastructure—affect all schools in a similar way. While this consistency can be seen as a positive indicator of standardization, it may also imply a lack of differentiation in KM practices based on specific school needs.

A key finding of this study is the **strong positive relationship between KM practices and supervisory effectiveness**, confirming that improved KM processes are associated with better supervisory outcomes. This result supports previous research that highlights KM as a critical driver of organizational performance and innovation (Alavi & Leidner, 2001; Wiig, 1997). In the context of educational supervision, this relationship underscores the importance of integrating KM into supervisory frameworks to enhance decision-making quality, optimize resource utilization, and improve student learning outcomes.

From a practical perspective, the findings suggest that the success of the new supervisory model—particularly in the context of school empowerment—depends heavily on the extent to which KM is effectively embedded within the system. The model requires supervisors to analyze data, support school improvement plans, and provide targeted interventions based on school performance levels. Without robust KM practices, these functions may remain fragmented and less effective. Overall, this study contributes to the literature by demonstrating that while KM has a clear and positive impact on supervisory effectiveness, its current level of implementation is insufficient to fully support the goals of the new supervisory model. Therefore, there is a need for **systematic strategies** that enhance KM practices, including the development of integrated knowledge systems, strengthening organizational culture, and building the capacity of educational leaders to apply knowledge effectively in practice.

Conclusion

This study examined the reality of knowledge management (KM) practices within the implementation of the new supervisory model in Saudi Arabia and explored their role in enhancing supervisory effectiveness and school performance. The findings confirm that KM is a **critical enabler** of modern educational supervision, particularly within a model that emphasizes school empowerment, data-driven decision-making, and continuous improvement.

The results indicate that KM practices are currently implemented at a **moderate level**, suggesting that while foundational elements are present, they are not yet fully integrated into institutional processes. Among KM dimensions, knowledge sharing is relatively well established, reflecting a collaborative environment within supervisory practices. However, the limited level of knowledge application highlights a significant gap between knowledge availability and its effective use in improving educational outcomes.

Importantly, the study demonstrates a **strong positive relationship between KM practices and supervisory effectiveness**, reinforcing the view that KM is not merely a supportive function but a strategic driver of performance. Effective KM contributes to better school development planning, enhanced communication, and more informed decision-making, all of which are essential components of the new supervisory model.

Based on these findings, the study concludes that the success of the new supervisory model depends largely on the **systematic integration of KM practices**. To achieve this, educational institutions must move beyond fragmented and individual-based efforts toward structured, organization-wide KM strategies. This includes strengthening digital infrastructure, fostering a culture of knowledge sharing, and building the capacity of educational leaders to effectively apply knowledge in practice.

Ultimately, embedding KM within educational supervision is essential for achieving sustainable improvement in school performance and aligning with broader national educational transformation goals.

Recommendations

Based on the findings of this study, several recommendations are proposed to enhance knowledge management (KM) practices and strengthen the effectiveness of the new supervisory model:

1. **Develop a Comprehensive Knowledge Management Strategy:** Educational authorities should establish a clear and structured KM strategy aligned with the goals of the new supervisory model. This strategy should define KM processes, roles, responsibilities, and mechanisms for knowledge creation, sharing, and application across all levels of the education system.
2. **Institutionalize Knowledge Management Practices:** KM should be embedded within organizational policies and procedures rather than relying on individual efforts. This includes integrating KM practices into supervisory guidelines, school improvement plans, and performance evaluation systems to ensure sustainability and consistency.
3. **Enhance Digital Infrastructure and Knowledge Systems:** Investing in advanced digital platforms—such as knowledge repositories, learning management systems, and data analytics tools—is essential to facilitate efficient knowledge storage, retrieval, and sharing. These systems should support real-time access to data and best practices for supervisors and school leaders.

4. **Strengthen Knowledge Sharing Culture:** Educational institutions should promote a collaborative culture that encourages open knowledge exchange among supervisors, school leaders, and teachers. This can be achieved through professional learning communities, workshops, and regular knowledge-sharing sessions.
5. **Focus on Knowledge Application:** Special attention should be given to improving the application of knowledge in decision-making and school improvement processes. Clear guidelines and practical frameworks should be developed to help supervisors translate knowledge into actionable strategies.
6. **Provide Continuous Training and Capacity Building:** Training programs should be designed to enhance the KM competencies of supervisors and school leaders, including skills in data analysis, knowledge documentation, and evidence-based decision-making.
7. **Establish Incentive and Motivation Systems:** Incentives—both financial and non-financial—should be introduced to encourage knowledge sharing and innovation. Recognizing and rewarding individuals who actively contribute to KM practices can enhance engagement and participation.
8. **Support Leadership and Governance for KM:** Leadership plays a critical role in KM success. Educational leaders should actively support KM initiatives by providing resources, setting clear expectations, and fostering an environment that values knowledge as a strategic asset.
9. **Conduct Ongoing Evaluation and Research:** Regular assessment of KM practices should be conducted to monitor progress, identify challenges, and ensure continuous improvement. Future research should also explore advanced models such as AI-driven knowledge systems and their impact on educational supervision.
10. **Align KM with School Empowerment Goals:** KM initiatives should be directly linked to the objectives of school empowerment by supporting autonomy, improving school-level decision-making, and enhancing overall educational performance.

References

- Alavi, M., & Leidner, D. E. (2001). Knowledge management and knowledge management systems: Conceptual foundations and research issues. *MIS Quarterly*, 25(1), 107–136. <https://doi.org/10.2307/3250961>
- Alharbi, M. (2021). Knowledge management practices in Saudi educational institutions. *International Journal of Educational Management*, 35(4), 789–803.
- Alharithy, M. (2015). Knowledge management process in several organizations: Analytical study of modeling and several processes. *Procedia Computer Science*, 65, 726–733. <https://doi.org/10.1016/j.procs.2015.09.027>
- Bamshmous, S. (2021). Knowledge sharing and documentation in higher education institutions: An applied study on scholarship departments in Saudi universities. *Journal of Information and Knowledge Management*, 20(3), 2150023.
- Boriboon, P., Chantarasombut, C., & Agsomsua, P. (2020). The development of an internal supervision model using professional learning communities for educational supervisors. *World Journal of Education*, 10(2), 163–173. <https://doi.org/10.5430/wje.v10n2p163>
- Carlos, A., Cardoso, S., Galante, S., Lamy, F., Massano, L., Silva, P., Gaspar, M. I., & Seabra, F. (2017). Supervision in continuous teacher training: A systematic approach. *Ensenanza & Teaching*, 35(1), 185–206.
- Dalkir, K. (2017). *Knowledge management in theory and practice* (3rd ed.). MIT Press.
- Fullan, M. (2016). *The new meaning of educational change* (5th ed.). Teachers College Press.
- Glickman, C. D., Gordon, S. P., & Ross-Gordon, J. M. (2018). *Supervision and instructional leadership: A developmental approach* (10th ed.). Pearson.
- Hargreaves, A. (2019). *Teacher collaboration: 30 years of research on its nature, forms, limitations and effects*. Teachers College Press.
- Holmqvist, M., & Ekstrom, M. L. (2024). A systematic review of research on educational superintendents. *Cogent Education*, 11(1), 2307142. <https://doi.org/10.1080/2331186X.2024.2307142>
- Masic, B., Nestic, S., Nikolic, D., & Dzeletovic, M. (2017). Evolution of knowledge management: A review. *Industrija*, 45(2), 127–147. <https://doi.org/10.5937/industrija45-12012>
- McGhee, M. W., & Stark, M. D. (2021). Empowering teachers through instructional supervision: Using solution-focused strategies in a leadership preparation program. *Journal of Educational Supervision*, 4(1), 43–67. <https://doi.org/10.31045/jes.4.1.5>
- Ministry of Education. (2023). *Educational transformation strategy aligned with Vision 2030*. Riyadh, Saudi Arabia.
- Nonaka, I., & Takeuchi, H. (1995). *The knowledge-creating company: How Japanese companies create the dynamics of innovation*. Oxford University Press.
- OECD. (2020). *Education in the digital age: Healthy and happy children*. OECD Publishing. <https://doi.org/10.1787/1209166a-en>
- Wiig, K. M. (1997). Knowledge management: Where did it come from and where will it go? *Expert Systems with Applications*, 13(1), 1–14. [https://doi.org/10.1016/S0957-4174\(97\)00018-3](https://doi.org/10.1016/S0957-4174(97)00018-3)