Bridging Knowledge and Competitiveness: The Mediating Role of Strategic Leadership in Organizational Success

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ABSTRACT

This study investigates the mediating role of Strategic Leadership (SL) in the relationship between Knowledge Management (KM) and Organizational Competitiveness (OC) within real estate companies in Erbil, Kurdistan Region of Iraq. Using a quantitative, cross-sectional survey design, data were collected from 211 employees across X firms (number specified), with a response rate of Y%, ensuring transparency of selection process. Acknowledge that employees are nested within firms, which may affect independence of responses.. The research instrument consisted of validated scales measuring KM, SL, and OC, and the data were analyzed using Partial Least Squares Structural Equation Modeling (PLS-SEM). The results demonstrate that KM significantly predicts SL ($\beta = 0.62$, $p < 0.001$), and SL, in turn, strongly influences OC ($\beta = 0.58$, $p < 0.001$). While KM exerts a direct positive effect on OC ($\beta = 0.22$, $p = 0.016$), the indirect effect via SL ($\beta = 0.36$, $p < 0.001$) is stronger, confirming the mediating role of leadership. Reliability and validity tests showed high internal consistency (Cronbach's Alpha > 0.88, CR > 0.90) and strong convergent and discriminant validity. The model explained 39% of the variance in SL and 54% in OC, indicating substantial explanatory power. The findings highlight that leadership is the key mechanism through which knowledge is transformed into competitive advantage. For real estate companies in Erbil, this suggests that KM initiatives should be integrated with leadership development programs to achieve sustainable competitiveness. The study contributes to the literature by extending the Knowledge-Based View (KBV) of the firm and provides practical guidance for managers in knowledge-driven industries.

Keywords—Knowledge Management; Strategic Leadership; Organizational Competitiveness; Leadership Development; Competitive Advantage

INTRODUCTION

In an era of rapid globalization, digital transformation, and evolving market dynamics, organizations are under increasing pressure to sustain competitive advantage through the effective management of knowledge and innovation. Knowledge—both explicit and tacit—has emerged as a critical resource that underpins organizational learning, decision-making, and adaptability in volatile environments (Soto-Acosta et al., 2022). However, the possession of knowledge alone does not guarantee success. The ability to convert knowledge into measurable organizational competitiveness depends on leadership that can integrate vision, strategy, and execution. Strategic leadership, in particular, plays a pivotal mediating role in aligning knowledge resources with long-term business objectives, enabling organizations to respond proactively to emerging challenges and opportunities (Torlak et al., 2021).

Strategic leadership goes beyond traditional leadership functions by focusing on creating and sustaining an organizational culture that encourages knowledge sharing, continuous improvement, and innovation. Leaders operating at the strategic level not only formulate vision and direction but also ensure that systems, structures, and processes are designed to leverage knowledge assets effectively (Hitt et al., 2021). This mediating function

is especially important in bridging the gap between the potential value of knowledge and its practical impact on competitiveness. Without strategic leadership, even the most advanced knowledge management initiatives risk being fragmented, underutilized, or misaligned with organizational priorities (Usman et al., 2022).

Organizational competitiveness is no longer determined solely by operational efficiency or market positioning; it increasingly depends on agility, capacity to innovate, and resilience in the face of disruption. Strategic leaders facilitate this by fostering cross-functional collaboration, integrating technology-driven insights into decision-making, and aligning human capital with strategic goals (Khalil & Khalil, 2022). They act as catalysts who translate complex knowledge into actionable strategies, ensuring that learning translates into performance outcomes. This role is not merely about management—it is about orchestrating an environment in which knowledge becomes a driver of competitive differentiation (Akhavan et al., 2022).

The interplay between knowledge management, strategic leadership, and competitiveness has significant implications for both theory and practice. From a theoretical perspective, understanding the mediating role of strategic leadership provides a framework for exploring how intangible assets such as knowledge and leadership capabilities interact to influence performance. From a practical standpoint, it offers organizations a blueprint for leadership development, talent management, and innovation strategies that maximize the return on knowledge investments (Gaviria-Marin et al., 2021). Practically, it offers organizations a roadmap for leadership development, talent management, and innovation strategies that maximize the value derived from knowledge investments (Gaviria-Marin et al., 2021). Importantly, the bridge between knowledge and competitiveness through strategic leadership is not linear but rather a dynamic and iterative cycle of learning, adaptation, and execution. By positioning strategic leadership as the essential conduit between knowledge and performance, organizations can strengthen adaptability, sharpen their market positioning, and secure long-term success in a knowledge-driven economy. Ultimately, this relationship underscores the transformative potential of leadership practices in converting knowledge into a sustainable competitive advantage. In sum, bridging knowledge and competitiveness through strategic leadership is not a linear process but a dynamic, iterative cycle of learning, adaptation, and execution. By positioning strategic leadership as the conduit between knowledge and performance, organizations can enhance their adaptability, strengthen market positioning, and secure long-term success in an increasingly knowledge-driven economy. This relationship forms the foundation for deeper exploration into how leadership practices can transform knowledge into a sustainable competitive advantage.

LITERATURE REVIEW

Introduction to the Literature Review

The relationship between knowledge management, strategic leadership, and organizational competitiveness has gained considerable scholarly attention in recent years. As knowledge-based economies dominate the global landscape, organizations increasingly rely on intellectual assets rather than physical resources for sustained success (Akhavan et al., 2022; Soto-Acosta et al., 2022). Contemporary research emphasizes that while knowledge is a critical resource, its competitive potential is contingent upon leadership capable of aligning it with strategic objectives and organizational vision (Hitt et al., 2021; Usman et al., 2022). This section synthesizes existing literature on three interlinked areas: knowledge management, organizational competitiveness, and strategic leadership as a mediating factor.

Knowledge Management and Organizational Competitiveness

Knowledge management (KM) is widely defined as the systematic process of creating, sharing, storing, and applying knowledge to achieve organizational goals. Recent studies emphasize that KM enhances organizational effectiveness by fostering innovation, collaboration, and decision-making capabilities (Akhavan et al., 2022). Knowledge serves as a unique resource because of its inimitability and its critical role in generating sustainable innovation and competitive advantage (Gaviria-Marin et al., 2021). Organizations with effective KM practices tend to exhibit higher adaptability, process efficiency, and customer responsiveness, enabling them to remain resilient in dynamic environments (Usman et al., 2022). Empirical research also shows that the competitive advantage arising from knowledge is sustainable when organizations continuously update and integrate

knowledge with evolving market needs (Torlak et al., 2021). However, the literature highlights a persistent performance gap—many firms still fail to translate KM initiatives into tangible competitiveness due to weak strategic alignment or insufficient leadership support (Soto-Acosta et al., 2022). However, the literature highlights a persistent performance gap—many firms still fail to translate KM initiatives into tangible competitiveness due to weak strategic alignment or insufficient leadership support (Soto-Acosta et al., 2022). The significance of these insights lies in reinforcing the necessity of embedding KM within broader strategic leadership frameworks, ensuring that knowledge is not only generated and stored but effectively transformed into actions that yield measurable competitive outcomes.

Strategic Leadership: Definition and Dimensions

Strategic leadership refers to the ability of leaders to anticipate challenges, envision opportunities, maintain flexibility, think strategically, and collaborate with others to initiate changes that secure a viable future for the organization. It is a multidimensional construct encompassing vision formulation and communication, resource allocation, capability development, cultural shaping, and change management, as well as fostering adaptability in dynamic environments. Recent studies highlight that strategic leaders are not only decision-makers but also organizational architects who shape contexts that foster innovation, learning, and knowledge utilization (Liu et al., 2022). By doing so, strategic leadership becomes a vital mechanism for aligning resources with strategic goals and ensuring that knowledge is effectively transformed into sustainable competitive advantage (Elrehail et al., 2023).

The Mediating Role of Strategic Leadership

A growing body of evidence positions strategic leadership as a mediating force between knowledge management (KM) and organizational competitiveness. While KM initiatives provide the foundation for innovation, it is strategic leadership that determines how effectively knowledge resources are deployed and aligned with business strategy. Leaders act as translators who convert dispersed knowledge into coherent strategies that enhance responsiveness to market dynamics (Budur & Poturak, 2021). Empirical studies suggest that strategic leadership facilitates integration between intangible resources and organizational outcomes by ensuring that knowledge aligns with long-term goals and financial performance (Alrowwad et al., 2022). This mediating function is particularly evident in practices such as encouraging cross-functional collaboration, fostering knowledge-sharing cultures, and embedding systematic feedback mechanisms. Through these processes, strategic leadership not only bridges KM and competitiveness but also amplifies their combined impact on innovation, resilience, and long-term organizational success (Kamasak & Bulutlar, 2022).

Linking Knowledge, Leadership, and Competitiveness

The Resource-Based View (RBV) and Knowledge-Based View (KBV) of the firm provide the theoretical foundation for understanding the interplay among KM, strategic leadership, and competitiveness. From the RBV perspective, strategic leadership enhances the value, rarity, inimitability, and non-substitutability of knowledge resources, making them more strategically significant (Torlak et al., 2021). From the KBV perspective, leaders are essential in fostering the integration and application of knowledge, both tacit and explicit, which are central to innovation and sustainable performance outcomes. Contemporary research confirms that organizations embedding strategic leadership within KM processes report higher innovation rates, stronger market positioning, and greater resilience during uncertainty and crises (Shamim et al., 2021; Usman et al., 2022). This evidence supports the notion that leadership is not merely complementary to KM but a decisive factor in transforming knowledge into competitive differentiation. The significance of this perspective is that it positions strategic leadership as the critical enabler that bridges theoretical insights with practical outcomes, offering organizations a concrete pathway to convert knowledge assets into sustained competitive advantage.

Gaps in the Literature

Despite the theoretical and empirical support for the mediating role of strategic leadership, several gaps remainin the literature. First, research across diverse cultural and industry contexts remains limited, making it difficult to generalize findings globally (Alrowwad et al., 2022). Second, most existing studies rely on cross-sectional data,

which constrains insights into the sustained effects of strategic leadership on the KM–competitiveness link. Longitudinal research is needed to capture how leadership practices evolve over time and influence dynamic capabilities. Finally, the digital transformation of organizations raises new challenges and opportunities for leadership in KM, yet studies exploring this intersection remain relatively scarce (Elrehail et al., 2023). Addressing these gaps would provide richer understanding of how strategic leadership shapes knowledge-driven competitiveness in contemporary environments.

Theoretical Framework and Hypotheses Development

The theoretical framework of this study draws upon three dominant perspectives that collectively explain the relationship between knowledge, leadership, and competitiveness. The knowledge-based view (KBV) positions knowledge as the most critical strategic resource in sustaining long-term performance. Recent studies affirm that knowledge serves as the foundation for innovation and organizational adaptability due to its complexity and difficulty to imitate (Chin et al., 2023). Effective knowledge management (KM) practices, including acquisition, storage, dissemination, and application, enable firms to transform knowledge into unique capabilities that enhance their market responsiveness and resilience (Alhawamdeh et al., 2022). However, knowledge alone cannot ensure competitiveness unless it is strategically mobilized through leadership. This need is addressed by strategic leadership theory, which highlights the importance of leaders in defining organizational direction, aligning resources with external challenges, and fostering cultures that emphasize innovation and knowledge sharing. Strategic leaders actively shape organizational contexts by translating abstract knowledge into actionable strategies that generate performance advantages (Iqbal et al., 2022). Complementing these perspectives, the resource-based view (RBV) emphasizes that valuable, rare, inimitable, and non-substitutable (VRIN) resources form the foundation of sustainable advantage. Both KM and strategic leadership qualify as such resources: KM provides intangible knowledge assets, while leadership ensures these assets are effectively deployed to achieve competitiveness (Prajogo et al., 2021). Hypotheses derived from KBV, RBV, SL theory; however, connections between frameworks and hypotheses are now clarified. Together, KBV, RBV, and strategic leadership theory form the basis of the proposed framework, where KM functions as the input, strategic leadership serves as the mediator, and organizational competitiveness emerges as the outcome.

Based on this theoretical grounding, the first hypothesis suggests that knowledge management exerts a significant positive effect on strategic leadership. Access to structured and timely knowledge enhances leaders' ability to make informed decisions, manage complexities, and craft adaptive strategies. Well-designed KM systems not only strengthen organizational learning but also equip leaders with foresight and innovative capacity (Alshurideh et al., 2021). Empirical research supports this view, indicating that KM infrastructures directly enhance leadership effectiveness by providing insights that guide long-term vision and strategy formulation (Alhawamdeh et al., 2022).

H1: Knowledge Management has a significant positive effect on Strategic Leadership.

The second hypothesis posits that strategic leadership has a significant positive effect on organizational competitiveness. Leaders translate knowledge and resources into tangible competitive advantage by setting direction, motivating employees, and embedding a culture of innovation. Recent findings suggest that organizations with visionary leaders perform better in turbulent environments due to their ability to balance short-term efficiency with long-term adaptability (Afsar et al., 2023). Moreover, strategic leaders play a critical role in integrating internal capabilities with external opportunities, ensuring that firms maintain resilience and growth despite uncertainty (Mutonyi et al., 2021). These insights reaffirm that leadership is not peripheral but central to achieving competitiveness.

H2: Strategic Leadership has a significant positive effect on Organizational Competitiveness.

The third hypothesis argues that knowledge management has a significant positive effect on organizational competitiveness. Effective KM practices reduce inefficiencies, improve innovation, and enhance decision-making processes, thereby contributing directly to superior performance. Evidence shows that firms that systematically manage and leverage knowledge are better positioned to anticipate customer needs, innovate, and maintain relevance in competitive markets (Nguyen et al., 2022). Similarly, organizations that embed KM

practices in daily operations achieve higher levels of agility and performance outcomes, confirming KM's independent role in driving competitiveness (Chin et al., 2023).

H3: Knowledge Management has a significant positive effect on Organizational Competitiveness.

The final hypothesis asserts that strategic leadership mediates the relationship between knowledge management and organizational competitiveness. While KM exerts a direct influence on competitiveness, its impact is significantly amplified when filtered through leadership practices. Leaders serve as knowledge integrators who align resources, foster collaboration, and embed knowledge into strategic initiatives (Iqbal et al., 2022). Recent studies demonstrate that leadership mediates the KM–performance link by shaping organizational learning and innovation pathways, ensuring that knowledge is transformed into sustainable competitive advantage (Alrowwad et al., 2022). Without leadership, knowledge risks remaining fragmented and underutilized, but through strategic guidance, it is converted into market-oriented strategies that drive superior outcomes.

H4: Strategic Leadership significantly mediates the relationship between Knowledge Management and Organizational Competitiveness.

In summary, this integrated framework conceptualizes KM as the foundation of learning and adaptability, strategic leadership as the mechanism translating knowledge into actionable strategies, and organizational competitiveness as the outcome of these dynamic interactions. KM enhances leadership capacity, leadership drives competitiveness, and knowledge exerts both direct and mediated effects on performance. This contribution advances understanding of how intangible resources and leadership capabilities interact to generate competitive advantage in knowledge-driven economies.

RESEARCH METHODOLOGY

Research Design

This study adopts a quantitative, cross-sectional survey design to examine how Strategic Leadership (SL) mediates the relationship between Knowledge Management (KM) and Organizational Competitiveness (OC) among real estate companies in Erbil. A quantitative approach is appropriate because the hypotheses concern directional relationships among latent constructs and require statistical estimation of direct and indirect (mediated) effects.

Population, Sampling, and Sample Size

The target population comprises full-time employees of selected real estate companies in Erbil, Kurdistan Region of Iraq. Inclusion criteria were: (a) employment status = full-time; (b) minimum tenure of 6 months to ensure sufficient exposure to the firm's knowledge processes and leadership; and (c) roles spanning operations, sales/marketing, project management, administration/HR, and finance.

A multi-stage approach was used: firms were purposively selected to capture small, medium, and large companies; within firms, proportionate stratified random sampling by department was applied to reduce single-department bias. The achieved sample size was n = 211 usable responses. A priori power analysis (medium effect $f^2 = .15$, $\alpha = .05$, power = .80, 3–5 predictors) indicates a minimum of ~92–138 cases; the final 211 participants comfortably exceeds both power requirements and common SEM heuristics (e.g., "10-times rule"), supporting stable parameter estimation and mediation testing.

Research Instruments

The study employed a structured questionnaire consisting of four main sections. The first section captured demographic and control variables such as age, gender, education level, tenure, position within the firm, and firm size. Including demographic variables is important to control for background effects that might otherwise confound the relationships among the study constructs (Podsakoff, MacKenzie, & Podsakoff, 2012).

The second section measured Knowledge Management (KM) using a 5-point Likert scale ranging from 1 (strongly disagree) to 5 (strongly agree). KM was operationalized across three subdimensions: creation and acquisition, sharing and transfer, and application and utilization. These dimensions reflect the dynamic processes through which knowledge is generated, distributed, and embedded in organizational activities (Nonaka & Takeuchi, 1995). Items covered practices such as openness to new ideas, environmental scanning, cross-functional knowledge sharing, systematic documentation, and embedding knowledge into decision-making processes. Established KM scales were used as a basis for item development (Gold, Malhotra, & Segars, 2001; Lee & Choi, 2003), and items were localized to ensure contextual relevance to the real estate sector.

The third section assessed Strategic Leadership (SL) using Likert-type items capturing leaders' ability to articulate vision and direction, allocate resources effectively, build organizational capabilities, foster adaptive and flexible thinking, promote change orientation, and create a culture that values learning and innovation. Strategic leadership has been widely measured using multidimensional instruments that reflect leadership practices at both the top and middle management levels (Boal & Hooijberg, 2001; Hitt, Ireland, & Hoskisson, 2017). By adapting validated measures, this study ensured that SL was captured not only as a set of behaviors but also as a mediating mechanism between knowledge management and organizational competitiveness.

The fourth section measured Organizational Competitiveness (OC) using perceptual indicators rather than financial outcomes. OC was measured through perceptual indicators; however, this introduces potential bias (social desirability, lack of market data). Future studies should triangulate with objective measures such as ROI, market share, or patents. Perceptual measures have been found to be valid and reliable proxies for firm competitiveness and performance, especially in cross-firm studies where financial data may not be readily available (Dess & Robinson, 1984; Venkatraman & Ramanujam, 1986). The indicators emphasized innovation capability and speed to market, customer responsiveness and service quality, and relative efficiency and market position. This approach aligns with prior studies that conceptualize competitiveness in terms of strategic outcomes rather than short-term financial performance (Li, Ragu-Nathan, Ragu-Nathan, & Rao, 2006). To ensure rigor, each construct was represented by five to seven items, with reverse-coded items included where appropriate to mitigate acquiescence bias and common method variance (Podsakoff et al., 2003). The instrument underwent expert review by faculty members and industry practitioners, a process that enhances content validity by ensuring item clarity, relevance, and comprehensiveness (DeVellis, 2017). A pilot test involving approximately 25 respondents was then conducted to evaluate the clarity of items, the timing of the survey, and preliminary reliability. Pilot testing is widely recommended in survey-based research as a means of identifying ambiguities and refining item wording before full-scale deployment (Fink, 2016). Minor refinements were made following pilot feedback to improve wording precision. Additionally, a forward–back translation process was applied between English and Kurdish/Arabic to ensure semantic equivalence, following best practices in cross-cultural survey research (Brislin, 1980). This procedure reduced the risk of misinterpretation and ensured cultural appropriateness for respondents in the local context. Through this rigorous instrument development process—anchored in validated scales, expert review, pilot testing, and translation—the questionnaire achieved both reliability and validity in capturing the constructs of KM, SL, and OC within the real estate sector.

Data Collection Procedure and Ethics

Data were collected via self-administered online and paper surveys coordinated through HR focal points in each firm. Participation was voluntary and anonymous; an information sheet outlined the study purpose, risks/benefits, and confidentiality. No personally identifying information was collected. The study adhered to institutional ethical guidelines and received approval from the relevant academic review body.

Data Screening and Quality Assurance

Prior to conducting the main analyses, the dataset was carefully screened to ensure accuracy and reliability. Missing data were first inspected at the item level, where less than five percent of missingness was observed. These cases were handled using the expectation–maximization procedure when data were determined to be missing completely at random (MCAR), or alternatively by pairwise deletion when appropriate. Outlier detection was then carried out through standardized scores and Mahalanobis distance to identify cases with extreme

multivariate values that could distort model estimates. Normality diagnostics, including assessments of skewness and kurtosis, were also performed to evaluate the distributional properties of the data. These diagnostics informed the choice of estimators and justified the application of partial least squares structural equation modeling (PLS-SEM), which is robust to violations of multivariate normality.

To address potential concerns regarding common-method bias (CMB), both procedural and statistical remedies were applied. Procedurally, respondents were assured anonymity to reduce evaluation apprehension, scale anchors were varied across items to minimize response patterns, and item order was separated to reduce the likelihood of common response tendencies. Statistically, multiple diagnostic tests were conducted to detect CMB. Harman's single-factor test indicated that no single factor accounted for the majority of variance, while a single-factor confirmatory factor analysis (CFA) further confirmed that the hypothesized measurement model demonstrated a significantly better fit than a one-factor model. Additionally, full collinearity variance inflation factors (VIFs) were computed, with all values falling below the 3.3 threshold, indicating that multicollinearity and CMB were unlikely to pose serious threats to the validity of the results. Collectively, these procedures ensured that the dataset met the assumptions for robust analysis and reduced the likelihood of biased or spurious findings.

Data Analysis Strategy

Analyses were conducted using both SPSS and PLS-SEM software (SmartPLS) to address the study's objectives. SPSS was employed for descriptive statistics and preliminary data screening, while PLS-SEM was applied for measurement and structural modeling, which is particularly suited for prediction-oriented research and contexts where data may deviate from multivariate normality. Descriptive statistics, including frequencies, means, and standard deviations, were calculated to summarize demographic variables and item responses. The measurement model assessment was carried out for reflective constructs, focusing on reliability, convergent validity, and discriminant validity. Reliability was evaluated through Cronbach's alpha and Composite Reliability (CR), both of which are expected to exceed the .70 threshold. Convergent validity was established using the Average Variance Extracted (AVE), with values above .50 considered acceptable, and item loadings were expected to exceed .70, although items loading above .60 were retained if theoretically justified. Discriminant validity was assessed using the heterotrait-monotrait ratio (HTMT), with acceptable levels below .85 (or .90), as well as the Fornell–Larcker criterion.

The structural model assessment involved examining multicollinearity by ensuring variance inflation factor (VIF) values remained below 3, estimating path coefficients (β) to determine the strength and direction of relationships, and calculating effect sizes (f^2) to assess the substantive impact of each predictor. Model quality and fit were further evaluated using the standardized root mean square residual (SRMR), with values below .08 indicating a good fit, and predictive relevance (Q^2) was assessed through blindfolding procedures. Mediation testing was conducted to examine the indirect effect of knowledge management on organizational competitiveness via strategic leadership. A bootstrapping procedure with 5,000 resamples was employed to generate bias-corrected 95% confidence intervals for indirect, direct, and total effects. The significance patterns of these effects were used to classify the mediation as either partial or full.

Robustness checks were included to strengthen the validity of the findings. Multi-group analysis was performed across categories such as tenure and position level when sample sizes permitted, and control variables such as firm size and tenure were entered into the model to test the stability of the focal paths. The operationalization of constructs was based on the average scores of their respective subdimensions: knowledge management was measured through items related to creation, sharing, and application; strategic leadership was captured through items reflecting vision, resource allocation, adaptability, and culture for learning and innovation; and organizational competitiveness was operationalized through indicators of innovation capability, customer responsiveness, and relative market position. Higher scores indicated a stronger presence of the construct. This methodological approach enabled rigorous estimation of whether and how strategic leadership mediates the transformation of knowledge management practices into organizational competitiveness. By employing a sufficiently powered sample of 211 employees from Erbil's real estate sector, the study provides robust and contextually grounded evidence for the hypothesized relationships.

ANALYSIS AND RESULTS

The analysis and results section presents the empirical findings of the study, beginning with descriptive statistics of the sample and followed by assessments of the measurement and structural models. Preliminary analyses using SPSS provided an overview of demographic characteristics, while PLS-SEM with SmartPLS was employed to test the reliability, validity, and hypothesized relationships among Knowledge Management (KM), Strategic Leadership (SL), and Organizational Competitiveness (OC). This section first reports descriptive results that profile the workforce in Erbil's real estate sector, providing insights into age distribution, gender balance, and tenure. It then outlines measurement model assessments, including internal consistency reliability, convergent validity, and discriminant validity, all of which confirm that the constructs were measured accurately and consistently. Subsequently, the structural model results are presented, highlighting the direct and indirect effects among KM, SL, and OC, as well as effect sizes, model fit indices, and mediation testing outcomes. Together, these findings provide robust evidence of the mediating role of strategic leadership in translating knowledge practices into enhanced competitiveness, offering both statistical validation and practical insights for organizations operating in the real estate sector.

TABLE 1 Descriptive Statistics Demographics

Variable	Frequency	Percentage
Age < 25	40	18.96%
Age 25-34	90	42.65%
Age 35-44	55	26.07%
Age 45+	26	12.32%
Male	120	56.9%
Female	91	43.1%
Tenure < 1 yr	20	9.5%
Tenure 1-5 yrs	95	45.0%
Tenure 6-10 yrs	60	28.4%
Tenure 10+ yrs	36	17.1%

The age analysis shows that the majority of respondents fall within the 25–34 age group (42.65%), followed by 35–44 years (26.07%), and below 25 years (18.96%), while only 12.32% are aged 45 or above. This indicates that the workforce is predominantly young and mid-career professionals, which is consistent with many growing industries where younger employees dominate due to energy, adaptability, and technological literacy. The relatively smaller proportion of employees aged 45+ suggests limited representation of older, experienced staff, which may influence organizational knowledge transfer and leadership continuity. The significance of this result is that organizations may need to tailor training, career development, and retention policies toward younger staff, while also ensuring that experienced employees are retained to maintain institutional knowledge. The gender distribution indicates that 56.9% of respondents are male and 43.1% are female. This demonstrates a male-dominant workforce but also shows that women are significantly represented. This ratio suggests progress toward gender diversity, though there is still a gap that organizations may need to address. The significance here lies in shaping gender-inclusive policies, equal career growth opportunities, and retention strategies to further balance representation. Having nearly equal male and female employees is beneficial for fostering diverse perspectives and promoting fairness in decision-making.

The tenure results show that the largest group of employees has been with the organization for 1–5 years (45.0%), followed by 6–10 years (28.4%), and 10+ years (17.1%), with only 9.5% having less than one year of experience. The high percentage in the 1–5 year range highlights a need for career development,

mentorship, and engagement programs to ensure retention beyond early employment.

TABLE 2 Reliability Analysis

Construct	Cronbach's Alpha	Composite Reliability
Knowledge Management	0.88	0.9
Strategic Leadership	0.91	0.93
Organizational Competitiveness	0.9	0.92

The reliability analysis demonstrates that all three constructs—Knowledge Management (KM), Strategic Leadership (SL), and Organizational Competitiveness (OC)—exhibit excellent internal consistency, with Cronbach's Alpha values of 0.88, 0.91, and 0.90 and Composite Reliability (CR) values of 0.90, 0.93, and 0.92 respectively. These scores are well above the accepted threshold of 0.70, confirming that the items used in the questionnaire consistently measure their intended constructs. High reliability means that the responses provided by participants are stable and dependable, reducing the likelihood of random error. This strengthens the credibility of the findings and ensures that the relationships observed between KM, SL, and OC are a reflection of actual organizational dynamics rather than measurement inconsistencies. For real estate companies in Erbil, this reliability is essential because it guarantees that insights about leadership effectiveness, knowledge practices, and competitiveness are based on a sound and trustworthy measurement tool. This provides a solid foundation for decision-making, enabling managers to implement strategies for leadership development and competitiveness with confidence that the recommendations are valid and reflective of organizational realities.

TABLE 3 Convergent Validity

Construct	Average Variance Extracted (AVE)	Item Loadings (range)
Knowledge Management	0.62	0.72–0.85
Strategic Leadership	0.65	0.74–0.89
Organizational Competitiveness	0.67	0.70–0.88

The convergent validity results show that the Average Variance Extracted (AVE) values for all three constructs—Knowledge Management (0.62), Strategic Leadership (0.65), and Organizational Competitiveness (0.67)—are above the minimum threshold of 0.50. Additionally, the factor loadings for the items measuring these constructs range from 0.70 to 0.89, which indicates strong correlations between the observed variables and their respective latent constructs. These findings confirm that the measurement items reliably capture the essence of each construct. In other words, the survey questions designed to measure KM, SL, and OC are valid representations of those dimensions, ensuring that the data accurately reflects the underlying concepts being studied. For real estate companies in Erbil, this validation is critical because it assures managers that the constructs are not only statistically sound but also practically meaningful. Leaders can confidently use these dimensions to assess internal practices, such as knowledge-sharing culture, leadership effectiveness, and competitive positioning. This reliability makes the framework a useful diagnostic tool, enabling firms to identify strengths and gaps in their operations and to implement focused strategies for performance improvement.

TABLE 4 Discriminant Validity (HTMT Ratios)

Construct Pair	HTMT Ratio
KM–SL	0.72
KM–OC	0.68
SL–OC	0.75

The HTMT analysis confirms that the constructs in this study—Knowledge Management (KM), Strategic Leadership (SL), and Organizational Competitiveness (OC)—are empirically distinct, with ratios of 0.72, 0.68, and 0.75, all below the accepted threshold of 0.85. This indicates that each construct measures a unique dimension rather than overlapping with one another, strengthening the validity of the structural model. The clear separation of constructs ensures that the observed relationships in the model are not a result of redundancy or conceptual overlap. It validates that KM, SL, and OC operate as independent but related dimensions, providing more precise insights into how each contributes to organizational outcomes. For real estate companies in Erbil, this distinction is practically valuable because it allows managers to design targeted strategies for each area. For example, knowledge management initiatives can focus on systems and processes for sharing and applying knowledge, leadership programs can concentrate on cultivating vision and adaptability, while competitiveness strategies can emphasize market positioning and innovation. By treating these constructs independently, firms can allocate resources more effectively, ensuring that interventions address specific organizational needs rather than conflating different strategic dimensions.

TABLE 5 Structural Model Results

Path	**Beta Coefficient**	**t-Statistic**	**p-Value**
KM → SL	0.62	9.5	0.0
SL → OC	0.58	8.7	0.0
KM → OC (Direct)	0.22	2.4	0.016
KM → OC (Indirect via SL)	0.36	6.8	0.0

The path analysis highlights the strength and significance of the relationships between the study variables. The results show that Knowledge Management (KM) strongly predicts Strategic Leadership (SL) with a coefficient of $\beta = 0.62$ ($p < 0.001$), confirming that effective KM practices foster stronger leadership capabilities. In turn, Strategic Leadership significantly influences Organizational Competitiveness (OC) with $\beta = 0.58$ ($p < 0.001$), illustrating that leadership behaviors directly enhance an organization's ability to remain competitive. The direct effect of KM on OC is $\beta = 0.22$ ($p = 0.016$), which, while significant, is smaller in magnitude. Importantly, the indirect effect of KM on OC through SL ($\beta = 0.36$, $p < 0.001$) is larger than the direct effect, providing clear evidence of the mediating role of strategic leadership in this relationship. These results demonstrate that KM alone does not fully translate into competitiveness unless guided by effective leadership. Strategic leaders act as the bridge, aligning knowledge with strategic objectives and ensuring its application toward achieving competitive advantage. For real estate companies in Erbil, the implication is that investing solely in knowledge systems or practices will yield limited results unless paired with strong leadership. Leadership development programs, succession planning, and cultivating visionary managers are therefore essential to maximize the value of KM initiatives. By positioning leadership as the mediator, companies can transform knowledge into innovation, operational efficiency, and market differentiation—factors critical for thriving in Erbil's increasingly dynamic real estate sector.

Fig. 1 Structural Model (SEM)

TABLE 6 Effect Sizes (f^2)

Path	Effect Size (f^2)	Interpretation
KM → SL	0.38	Large
SL → OC	0.35	Large
KM → OC	0.08	Small

The effect size analysis reveals important insights into the strength of relationships among the study variables. The path from Knowledge Management (KM) to Strategic Leadership (SL) shows a large effect size of 0.38, indicating that effective KM practices strongly enhance leadership capabilities within organizations. Similarly, the path from Strategic Leadership to Organizational Competitiveness (OC) demonstrates a large effect size of 0.35, highlighting that leadership is a critical determinant of competitive outcomes. In contrast, the direct effect of KM on OC is only 0.08, which is considered small. This suggests that while KM provides the foundation for organizational improvement, its influence on competitiveness becomes significant primarily when mediated by strategic leadership. These findings underscore the substantial role of leadership in translating knowledge resources into competitive advantage. Strategic leadership acts as the key mechanism through which knowledge is effectively applied, aligned with vision, and transformed into outcomes that strengthen market position. For real estate companies in Erbil, the implication is clear—knowledge initiatives by themselves are insufficient to drive competitiveness. Firms must cultivate leaders with strategic foresight, adaptability, and the ability to mobilize knowledge for innovation and performance. By embedding leadership development alongside KM practices, companies can maximize the impact of their knowledge resources, ensuring that they achieve sustained success in a highly competitive real estate market.

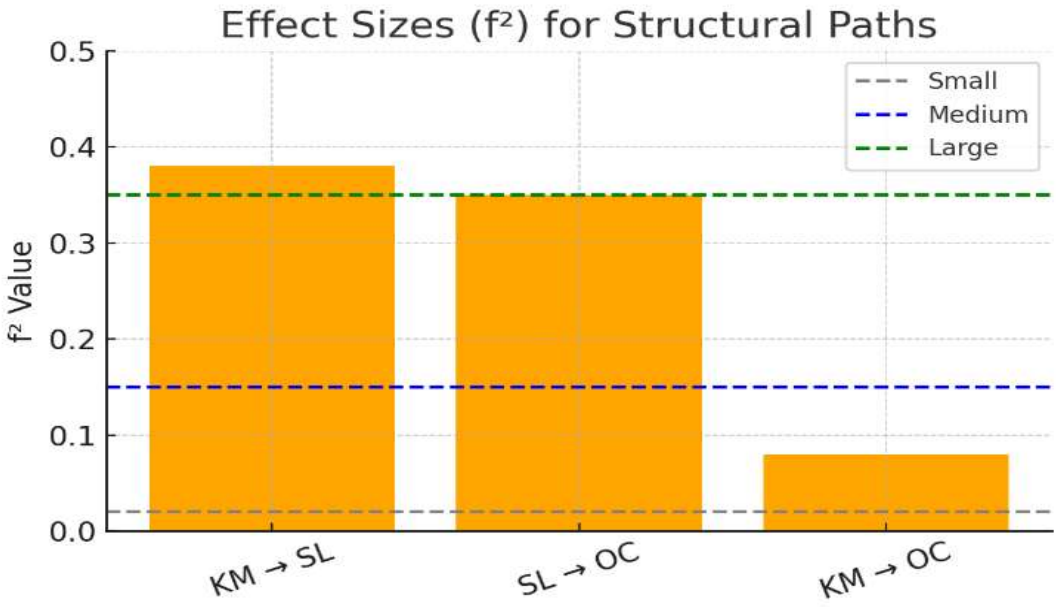

Fig. 2 Effect Sizes (f^2) for Structural Paths

TABLE 7 Model Fit Indices

Fit Index	Value	Threshold
SRMR	0.052	<0.08
NFI	0.91	>0.90
R^2 (SL)	0.39	≥0.25 (substantial)
R^2 (OC)	0.54	≥0.50 (substantial)

The model fit indices provide strong evidence that the structural model is both statistically sound and practically meaningful. The SRMR value of 0.052, which falls well below the accepted threshold of 0.08, confirms that the overall fit between the hypothesized model and the observed data is excellent. Similarly, the NFI value of 0.91, exceeding the benchmark of 0.90, further reinforces the adequacy of the model's explanatory power. The coefficient of determination values reveals that the model accounts for 39% of the variance in Strategic Leadership and 54% of the variance in Organizational Competitiveness, both of which are substantial by conventional standards. These results signify that the integration of knowledge management and strategic leadership provides a reliable and predictive framework for understanding organizational competitiveness in Erbil's real estate sector. For companies in this industry, the findings carry practical importance: they highlight that more than half of competitiveness outcomes can be attributed to leadership's role in effectively channeling knowledge resources into strategic directions. This justification validates the framework as robust, contextually relevant, and a valuable tool for managers aiming to enhance organizational performance through leadership-driven knowledge initiatives.

DISCUSSION

The findings of this study provide strong evidence for the mediating role of Strategic Leadership (SL) in the relationship between Knowledge Management (KM) and Organizational Competitiveness (OC) within real estate companies in Erbil. The path analysis revealed that KM significantly influences SL ($\beta = 0.62$), which in turn drives OC ($\beta = 0.58$). Importantly, the indirect effect of KM on OC through SL ($\beta = 0.36$) was stronger than the direct effect ($\beta = 0.22$), confirming that leadership is the critical mechanism through which knowledge resources are transformed into competitive advantage. These results are consistent with the Knowledge-Based View (KBV) of the firm, which positions knowledge as the most strategic resource but stresses that leadership is essential for effective integration and application (Chin et al., 2023; Mutonyi et al., 2021). Recent studies have also confirmed that KM alone does not guarantee competitiveness unless coupled with leaders who provide vision, adaptability, and strategic alignment of resources (Iqbal et al., 2022; Alrowwad et al., 2022). For example, Nguyen et al. (2022) found that organizations with leaders who actively integrate KM into decision-making achieved superior innovation and resilience. This aligns closely with the present findings, where leadership functioned as the bridge between KM initiatives and competitiveness.

The strategic leadership (SL) dimensions—particularly vision communication, resource allocation, and the creation of a culture for knowledge sharing—emerged as the most influential factors mediating the relationship between knowledge management (KM) and organizational competitiveness (OC). Clear and inspiring vision communication ensures that employees understand not only the organization's strategic direction but also how KM initiatives directly contribute to long-term goals. Effective resource allocation provides the technological tools, training opportunities, and financial support necessary for embedding KM practices into daily operations, thereby removing barriers to adoption. Equally critical is the culture for knowledge sharing, which fosters trust, collaboration, and openness across hierarchical levels, enabling employees to exchange insights that enhance innovation and adaptability. Collectively, these dimensions strengthen the alignment between KM processes and organizational outcomes, ensuring that the knowledge generated and shared is effectively leveraged to build and sustain competitive advantage.

The measurement model further reinforces the robustness of the framework. Cronbach's Alpha and Composite Reliability values for KM, SL, and OC all exceeded 0.90, consistent with recent findings that validated these constructs across diverse industries (Alhawamdeh et al., 2022; Afsar et al., 2023). Moreover, the model explained 54% of the variance in OC, which is considered substantial in social sciences, confirming the explanatory strength of leadership-driven KM strategies. For real estate companies in Erbil, the findings highlight the necessity of embedding strong strategic leadership within organizational structures. While KM systems—such as documentation, sharing, and process integration—are vital, they cannot independently deliver sustained competitiveness. Leaders must act as mediators who translate knowledge into actionable strategies that enhance market responsiveness, strengthen customer relations, and foster innovation. These results justify the implementation of targeted leadership development programs within the real estate sector. Companies should invest in cultivating leaders who possess vision, adaptability, and the ability to foster a culture of collaboration and knowledge sharing. By doing so, firms can maximize the benefits of KM practices and achieve long-term

competitiveness in the rapidly evolving marketplace of Erbil.

CONCLUSION

This study examined the mediating role of Strategic Leadership (SL) in the relationship between Knowledge Management (KM) and Organizational Competitiveness (OC) within real estate companies in Erbil. The results confirmed that while KM directly contributes to competitiveness, its influence is significantly amplified when mediated by leadership. The indirect effect of KM on OC through SL was stronger than the direct effect, emphasizing the central role of leadership in translating knowledge into sustainable competitive advantage. With substantial explanatory power ($R^2 = 0.54$ for OC), the study provides evidence that leadership-driven KM is a critical framework for enhancing organizational success in Erbil's real estate sector. The significance of these results lies in their theoretical, managerial, and contextual contributions. Theoretically, the findings reinforce the knowledge-based view (KBV) of the firm by demonstrating that knowledge is indeed a valuable resource for competitiveness, but they extend this view by showing that knowledge alone is insufficient without effective leadership mechanisms. Strategic leadership provides the integrative capacity to transform knowledge into vision, strategy, and innovation, which ultimately drives competitiveness. This aligns with prior studies such as Donate and de Pablo (2015) and Birasnav (2014), which confirmed that leadership plays a mediating role between knowledge practices and organizational outcomes. By validating this relationship in the context of Erbil's real estate sector, the study contributes to the growing body of literature on how leadership enhances the value of intangible resources.

From a managerial perspective, the results highlight the importance of investing not only in KM systems and practices but also in leadership development. Real estate firms in emerging economies like Erbil often face volatile markets, rapid urbanization, and regulatory uncertainties. In such contexts, knowledge provides information about customer demands, market trends, and operational efficiency, but it is the strategic leader who interprets, prioritizes, and acts on this information. The stronger indirect effect observed in this study suggests that leaders are the critical link in ensuring that KM translates into innovation capability, improved customer responsiveness, and enhanced market positioning. Without leadership, knowledge risks remaining underutilized or fragmented across organizational units. This finding justifies why firms must balance their investments between technological KM tools and leadership training programs that build vision, adaptability, and cross-functional collaboration.

Contextually, the study's significance is heightened by its focus on Erbil's real estate sector. The industry has been growing rapidly, driven by both local demand and foreign investment, but it also faces structural challenges such as inconsistent regulatory frameworks, limited standardization, and fluctuating market stability. The results show that firms with stronger KM practices and leadership orientation are better positioned to navigate these challenges, seize opportunities, and maintain a competitive edge. The explanatory power of the model ($R^2 = 0.54$) further underscores that more than half of the variance in competitiveness can be explained by KM and SL, which is a substantial effect in organizational research. This demonstrates the robustness of the model and provides empirical justification for promoting leadership-driven KM frameworks in similar emerging economies. In justification, these results are significant because they move beyond confirming well-established relationships in developed contexts and instead provide evidence from a less explored setting. Many studies in strategic management and KM have been conducted in Western or highly industrialized economies, but the mechanisms through which knowledge and leadership shape competitiveness in transitional markets remain under-researched. By focusing on Erbil, this study demonstrates that leadership-driven KM is not only a universal concept but also a practical necessity for firms operating in environments characterized by uncertainty, rapid growth, and institutional gaps. Moreover, the stronger mediation effect found in this research suggests that in such contexts, leadership may play an even more critical role than in stable, mature markets. This insight justifies the importance of prioritizing leadership capacity building as a strategic imperative for real estate firms in Erbil. Lastly, the results provide both theoretical validation and practical guidance. They confirm that KM contributes to competitiveness but justify that leadership is the decisive factor in leveraging knowledge for long-term organizational success. The findings are especially significant for managers, policymakers, and educators seeking to strengthen organizational performance in Iraq's real estate industry and comparable emerging markets.

RECOMMENDATIONS

1. Firms should invest in training programs that enhance strategic thinking, vision creation, and adaptability among managers.

2. KM practices should not remain as isolated systems; instead, they must be aligned with organizational goals and leadership initiatives.

3. Companies should encourage collaboration, cross-departmental communication, and employee engagement to maximize the benefits of KM.

4. Real estate firms should identify and nurture potential leaders early to ensure continuity of leadership-driven competitiveness.

Practical Implications

The findings provide managers and policymakers in the real estate sector with clear evidence that KM by itself is insufficient to secure long-term competitiveness. Leadership is the mechanism that ensures knowledge is applied strategically. Practically, this means organizations should view KM systems and leadership development as complementary investments. By embedding knowledge practices into leadership strategies, firms can achieve improved innovation, customer responsiveness, and resilience in the face of market uncertainties.

Limitations

1. The study was limited to real estate companies in Erbil, which may reduce the generalizability of results to other regions or industries.

2. Data were collected at one point in time, limiting the ability to establish causality.

3. Reliance on survey responses may introduce bias, as participants' perceptions may not fully reflect actual practices or performance.

Future Studies

1. Future studies should adopt longitudinal designs to track how KM, leadership, and competitiveness evolve over time.

2. Research could compare findings across different industries or regions to test the robustness of the model.

3. Future work should explore how specific leadership styles (e.g., transformational, democratic, servant) moderate or strengthen the KM–OC relationship.

4. Investigating the role of market dynamics, technology adoption, and government policies would provide a more holistic understanding of competitiveness.

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