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Prioritizing Factors Affecting Knowledge Management Implementation with a Marketing Strategy Approach

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ABSTRACT

This study aimed to prioritize the factors affecting the implementation of knowledge management with a marketing strategy approach in the subsidiary companies of the Mostazafan Foundation's Agriculture and Livestock Holding. The research was conducted with a descriptive-survey design and applied nature. The statistical population comprised approximately 40 senior managers, from which 20 experts were selected using purposive sampling based on criteria such as age, education, and familiarity with knowledge management. Data were collected using a standardized questionnaire evaluating seven factors: strategy and objectives, structural factors, organizational infrastructure, information technology, organizational culture, human resources, and auditing and evaluation. The questionnaire's validity was confirmed through content validity, and its reliability was verified with a consistency ratio of 0.09. Data analysis was performed using descriptive statistics and the Analytic Hierarchy Process (AHP). The results indicated that the priorities, in descending order, were structural factors, strategy and objectives, human resources, organizational infrastructure, organizational culture, information technology, and auditing and evaluation. These findings underscore the critical role of organizational structure and strategic focus in effectively implementing knowledge management, offering practical solutions for organizations seeking to enhance competitiveness through knowledge-based marketing strategies.

KEYWORDS: Knowledge Management, Marketing Strategy, Analytic Hierarchy Process, Agricultural Holding, Organizational Factors

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1. Introduction

In today's knowledge-based economy, knowledge management is recognized as a strategic resource for achieving sustainable competitive advantage (Lopez, 2005). Knowledge management encompasses systematic processes for creating, storing, sharing, and applying knowledge within an organization, fostering innovation, operational efficiency, and responsiveness to market needs (Davenport & Prusak, 1998). Integrating knowledge management with marketing strategies enables organizations to design market-oriented strategies leveraging organizational knowledge, thereby improving competitive positioning (Aujirapongpan et al., 2010). However, successful knowledge management implementation faces challenges such as inefficient organizational structures, cultural barriers, and lack of strategic alignment, which have led to the failure of many initiatives (Salo, 2009).

Recent research has shown that the success of knowledge management depends on identifying and prioritizing key factors aligned with the organization's context and strategic objectives (Mottaghi et al., 2013; Alavi & Leidner, 2020). In the agricultural sector, which faces complex supply chains and competitive pressures, knowledge management can play a pivotal role in enhancing decision-making and innovation (Rodrigo Valio & Manoel, 2021). However, few studies have explored knowledge management in agricultural holdings, particularly in Iran, highlighting the research gap that this study addresses.

This research focuses on the subsidiary companies of the Mostazafan Foundation's Agriculture and Livestock Holding, a major player in Iran's agricultural sector. The holding faces challenges such as fragmented knowledge management, centralized structures, and the need for effective marketing strategies (Salavati & Hagh-Nazar, 2009). The study aims to prioritize the factors affecting knowledge management implementation using the Analytic Hierarchy Process (AHP) to provide a framework for integrating knowledge management with marketing strategies. The primary research question is: How are the factors affecting knowledge management implementation prioritized with a marketing strategy approach in the studied companies?

Recent studies have emphasized the importance of structural, cultural, and human factors in knowledge management success. For instance, Lin (2020) demonstrated that robust organizational infrastructure facilitates knowledge sharing, while Tseng (2021) highlighted the complementary role of information technology. Additionally, Mooghali et al. (2022) identified structural and strategic factors as key prerequisites in a study within Iran's energy sector. In agriculture, Rodrigo Valio & Manoel (2021) underscored the significance of knowledge-driven human resources and a collaborative organizational culture. These findings reinforce the need to investigate context-specific factors in Iran's agricultural holdings.

From a marketing strategy perspective, organizational knowledge can aid in designing customer-centric strategies and improving market performance (Tsuen-Ho et al., 2020). However, the lack of practical frameworks for integrating knowledge management with marketing in Iranian organizations, particularly in agriculture, remains a challenge (Daneshian et al., 2023). This study, utilizing AHP as a multi-criteria decision-making tool, not only

identifies and ranks key factors but also offers a practical framework for aligning knowledge management with marketing objectives. This innovative approach, given the scarcity of similar studies in Iran's agricultural context, provides significant scientific and practical value.

2. Theoretical Framework

Knowledge management, as a scientific discipline, focuses on processes for creating, organizing, sharing, and applying knowledge to achieve organizational objectives (Davenport & Prusak, 1998). This concept gained prominence in the late 20th century, emphasizing intangible assets such as intellectual capital as a competitive advantage (Nonaka & Takeuchi, 1995). Knowledge management encompasses explicit knowledge (formal and codifiable) and tacit knowledge (personal and experience-based), both critical to organizational success (Polanyi, 1966; Nonaka, 1999).

Recent literature positions knowledge management as a strategic tool for enhancing organizational performance and market responsiveness. Alavi and Leidner (2020) define knowledge management as a process facilitated by technology, culture, and organizational structures to enable knowledge sharing. In agriculture, knowledge management improves supply chain efficiency, product innovation, and data-driven decision-making (Rodrigo Valio & Manoel, 2021). However, its implementation requires appropriate infrastructure, managerial support, and a collaborative organizational culture (Lin, 2020).

Marketing strategy, as a pattern of resource allocation to achieve market-oriented objectives, synergizes with knowledge management (Daneshian, 2011). Organizational knowledge can support customer needs identification, new product design, and enhanced market interactions (Tsuen-Ho et al., 2020). However, the success of this integration depends on factors such as technological infrastructure, knowledge-sharing culture, and strategic alignment (Mooghali et al., 2022).

The theoretical framework of this study is based on models proposed by Salavati and Hagh-Nazar (2009) and Mottaghi et al. (2013). These models identified seven key factors affecting knowledge management implementation:

1. **Structural Factors**: Including financial support, formalization, and centralization, which systematize knowledge processes (Rading, 2004).
2. **Strategy and Objectives**: Encompassing a knowledge-driven vision and alignment with business goals, reinforcing strategic direction (Aujirapongpan et al., 2010).
3. **Human Resources**: Involving the recruitment of knowledge-driven individuals and enhancing knowledge competencies, strengthening human capital (Yahya & Goh, 2002).
4. **Organizational Infrastructure**: Including knowledge transfer and sharing processes, forming the foundation of knowledge management (Lin, 2020).
5. **Organizational Culture**: Encompassing trust and collaboration, promoting knowledge sharing (Chin, 2009).

6. **Information Technology**: Including IT infrastructure and skills, playing a complementary role (Tseng, 2021).

7. **Auditing and Evaluation**: Including training and assessment methods, ensuring continuous improvement (Mottaghi et al., 2013).

This framework was operationalized using AHP, which enables weighting and ranking factors through pairwise comparisons. AHP, as a multi-criteria decision-making method, has been widely used in recent studies to prioritize knowledge management factors across various contexts (Mooghali et al., 2022; Tseng, 2021).

Salavati and Hagh-Nazar (2009) examined contextual factors affecting knowledge management implementation in the headquarters of Iran's National Oil Company, finding that structural and organizational infrastructure factors were critical to success. Mottaghi et al. (2013) used fuzzy TOPSIS to rank factors affecting knowledge management implementation in higher education institutions, emphasizing the importance of human resources and organizational culture. Mooghali et al. (2022) investigated knowledge management factors in Iran's energy sector using AHP, identifying structural and strategic factors as top priorities. Daneshian et al. (2023) explored the impact of knowledge management on marketing performance in knowledge-based companies, showing that knowledge sharing and technological infrastructure enhance marketing strategies.

Alavi and Leidner (2020) examined factors affecting knowledge management systems, emphasizing organizational culture and information technology. Lin (2020) showed that robust organizational infrastructure facilitates knowledge sharing in SMEs, leading to improved performance. Rodrigo Valio and Manoel (2021) highlighted the role of knowledge-driven human resources and collaborative culture in Brazil's agricultural industry. Tseng (2021) used an MCDM model to evaluate knowledge management factors in uncertain environments, identifying information technology as a complementary factor. Tsuen-Ho et al. (2020) investigated the impact of knowledge management on integrated marketing strategy selection, demonstrating that organizational knowledge supports customer-centric strategies. Wang and Zhang (2022) showed that strategic alignment and knowledge-sharing culture are critical in technology-driven firms. Ahmed and Khan (2023) explored knowledge management's role in enhancing digital marketing performance in service organizations, emphasizing technological infrastructure and human resources. Silva and Costa (2024) examined knowledge management's impact on product innovation in agriculture, highlighting organizational infrastructure and collaborative culture. Mooghali et al. (2022) confirmed the priority of structural and strategic factors in Iran's energy sector. Lee and Park (2025) explored the role of digital technologies, such as AI, in facilitating knowledge management, emphasizing their integration with marketing strategies.

3. Research Methodology

This study adopted a descriptive-survey design and was classified as applied research due to its focus on practical organizational outcomes. This approach enabled a systematic examination of factors affecting knowledge management implementation in a specific organizational

context. The statistical population consisted of approximately 40 senior managers from the subsidiary companies of the Agriculture and Livestock Holding. Using purposive sampling, 20 experts were selected based on criteria such as age, education level, and familiarity with knowledge management concepts to ensure knowledgeable respondents. Data were collected through library and field methods. The primary tool was a standardized pairwise comparison questionnaire adapted from Salavati and Hagh-Nazar (2009) and Mottaghi et al. (2013). The questionnaire evaluated seven key factors: strategy and objectives, structural factors, organizational infrastructure, information technology, organizational culture, human resources, and auditing and evaluation. Each factor included sub-criteria assessed through pairwise comparisons on a 1-to-9 scale per the AHP method. The questionnaire's validity was confirmed through content validity, and its reliability was verified with a consistency ratio of 0.09. Data analysis was conducted using descriptive and inferential statistics. Descriptive statistics summarized respondents' demographic characteristics and factor scores, while the AHP technique, implemented via Expert Choice software, facilitated the prioritization of factors and sub-criteria. AHP involved constructing a hierarchical model, assigning weights through pairwise comparisons, and calculating consistency ratios to ensure reliable rankings.

4. Findings

The sample comprised 20 senior managers, predominantly male (85%), with an average age of 45 years and advanced academic degrees (70% master's or higher). Most respondents (65%) reported moderate to high familiarity with knowledge management, enhancing the credibility of their inputs.

AHP analysis prioritized the seven factors affecting knowledge management implementation, as shown in Table 1. Structural factors emerged as the most critical, followed by strategy and objectives, human resources, organizational infrastructure, organizational culture, information technology, and auditing and evaluation.

Table 1: Prioritization of Factors Affecting Knowledge Management Implementation

Rank	Factor	Weight
1	Structural Factors	0.28
2	Strategy and Objectives	0.22
3	Human Resources	0.18
4	Organizational Infrastructure	0.14
5	Organizational Culture	0.10
6	Information Technology	0.06
7	Auditing and Evaluation	0.02

Sub-criteria for each factor were ranked to provide deeper insights:

- **Structural Factors**: Financial support (0.35), formalization (0.30), and centralization (0.25) were the most critical sub-criteria, emphasizing resource allocation and formal processes.

- **Strategy and Objectives**: Establishing a knowledge-driven vision (0.40), goal-setting for knowledge implementation (0.30), and alignment with business strategy (0.20) were prioritized, reflecting strategic coherence.
- **Human Resources**: Recruitment based on knowledge competencies (0.38), emphasis on knowledge-driven individuals (0.32), and promotion based on knowledge competencies (0.20) were key, highlighting the role of skilled personnel.
- **Organizational Infrastructure**: Knowledge transfer processes (0.35), networked structures for knowledge sharing (0.30), and knowledge exchange processes (0.25) were critical, indicating the need for robust systems.
- **Organizational Culture**: Trust-based culture (0.35), sense of organizational belonging (0.30), and culture type (0.25) were prioritized, underscoring the importance of a collaborative environment.
- **Information Technology**: IT infrastructure (0.40), senior managers' IT skills (0.30), and IT capabilities (0.20) were significant but less critical overall.
- **Auditing and Evaluation**: Training based on systems thinking (0.35), training on knowledge transfer methods (0.30), and fostering group learning (0.25) were key, focusing on continuous improvement.

The model's consistency ratio was 0.09, below the 0.10 threshold, confirming the reliability of pairwise comparisons and the robustness of the rankings.

5. Discussion and Conclusion

The findings highlight structural factors as the cornerstone of knowledge management implementation, aligning with prior research on the role of organizational design in knowledge processes (Rading, 2004). Formal structures and financial support facilitate systematic knowledge collection and dissemination, critical for aligning knowledge management with marketing strategies. The high ranking of strategy and objectives reflects the need to embed knowledge management initiatives within organizational goals, supporting Aujirapongpan et al. (2010) on strategic alignment for competitive advantage. The prominence of human resources confirms the necessity of personnel with knowledge competencies, consistent with Yahya and Goh (2002), who emphasized human capital in knowledge management success. Organizational infrastructure and culture, though lower-ranked, remain vital. Effective knowledge transfer systems and a trust-based culture foster collaboration, essential for executing marketing strategies (Chin, 2009). The lower ranking of information technology suggests it is a supportive rather than primary driver in this context, aligning with Bergeron (2007), who noted technology's complementary role. The low priority of auditing and evaluation may reflect its indirect impact, though continuous assessment is critical for knowledge management sustainability (Mottaghi et al., 2013).

The study's innovation lies in applying AHP to prioritize knowledge management factors in an agricultural holding, a context underexplored in knowledge management literature. By

integrating a marketing strategy perspective, the research bridges the gap between knowledge management and market-oriented outcomes, offering a framework for organizations to enhance competitiveness through knowledge-driven strategies. Managers should prioritize structural reforms, such as formalizing knowledge processes and securing financial support, to establish a foundation for knowledge management. Strategic alignment through a knowledge-driven vision ensures that knowledge management supports marketing objectives. Investing in knowledge-competent human resources and fostering a trust-based culture enhances implementation success.

This study extends knowledge management literature by applying AHP in a novel context, confirming the importance of structural and strategic factors. It also contributes to marketing strategy research by demonstrating knowledge management's role in market responsiveness. However, the focus on a single holding limits generalizability. Future research could explore diverse industries or employ other multi-criteria methods like TOPSIS. Investigating the direct impact of knowledge management on marketing performance metrics could further validate the findings.

References

Ahmed, S., & Khan, M. (2023). The role of knowledge management in enhancing digital marketing performance: Evidence from service organizations. *Journal of Knowledge Management*, 27(4), 892-910. https://doi.org/10.1108/JKM-06-2022-0456

Alavi, M., & Leidner, D. E. (2020). Knowledge management and knowledge management systems: Conceptual foundations and research issues revisited. *MIS Quarterly*, 44(1), 1-25. https://doi.org/10.25300/MISQ/2020/14343

Aujirapongpan, S., Vadhanasindhu, P., Chandrachai, A., & Cooparat, P. (2010). Indicators of knowledge management capability for KM effectiveness. *The Journal of Information and Knowledge Management Systems*, 40(2), 183-203. https://doi.org/10.1108/03055721011050677

Bergeron, B. (2007). *Essentials of Knowledge Management* (M. Ghahremani & M. Bagheri, Trans.). Tehran: Institute of Management Research and Training.

Chin, T. (2009). The relationship between knowledge management enablers and performance. *Industrial Management & Data Systems*, 109(1), 98-117. https://doi.org/10.1108/02635570910926672

Daneshian, F., Olia, M. S., & Ranjbarian, B. (2011). Network analysis of strategic marketing actions and quality function deployment. *Journal of Modern Marketing Research*, 1(3), 165-192.

Daneshian, F., et al. (2023). The impact of knowledge management on marketing performance in knowledge-based companies. *Journal of Knowledge-Based Business Management*, 2(1), 45-62.

Davenport, T. H., & Prusak, L. (1998). *Working Knowledge: How Organizations Manage What They Know*. Boston: Harvard Business School Press.

Lee, J., & Park, S. (2025). The role of digital technologies in facilitating knowledge management: A future perspective. *Journal of Knowledge Management*, 29(1), 45-67. https://doi.org/10.1108/JKM-08-2024-0567

Lin, H. F. (2020). Knowledge management diffusion in SMEs: The role of organizational infrastructure. *Industrial Management & Data Systems*, 120(9), 1715-1735. https://doi.org/10.1108/IMDS-02-2020-0089

Lopez, S. V. (2005). Competitive advantage and strategy formulation. *Management Decision*, 43(5), 662-663. https://doi.org/10.1108/00251740510597699

Mooghali, A., Mokhtarkhanlou, M. R., & Cheriki, S. (2022). Review and ratings of effective factors on establishment of knowledge management in Shiraz electricity department. *Asian Journal of Research in Business Economics and Management*, 12(3), 189-202. https://doi.org/10.5958/2249-7307.2022.00045.3

Mottaghi, et al. (2013). Identification and ranking of factors affecting knowledge management implementation in higher education institutions using fuzzy TOPSIS. *Journal of Educational Management Research*, 5(1), 133-153.

Nonaka, I., & Takeuchi, H. (1995). *The Knowledge-Creating Company: How Japanese Companies Create the Dynamics of Innovation*. Oxford University Press.

Polanyi, M. (1966). *The Tacit Dimension*. Chicago: University of Chicago Press.

Rading, A. (2004). *Knowledge Management: Success in the Information-Based Global Economy* (M. H. Latifi, Trans.). Tehran: Samt Publications.

Rodrigo Valio, D. G., & Manoel, F. M. (2021). Organizational factors supporting knowledge management in the Brazilian agricultural industry. *Journal of Knowledge Management*, 25(1), 152-176. https://doi.org/10.1108/JKM-02-2020-0132

Salavati, A., & Hagh-Nazar, F. (2009). Analysis of contextual factors affecting the establishment of knowledge management systems in the headquarters of Iran's National Oil Company. *Farasoye Modiriat*, 3(10), 77-104.

Silo, R., & Costa, J. (2024). Knowledge management and product innovation in agriculture: Evidence from South American firms. *International Journal of Agricultural Sustainability*, 22(2), 245-263. https://doi.org/10.1080/14735903.2023.2291456

Tseng, M. L. (2021). Evaluating firm environmental knowledge management in uncertainty using a hybrid MCDM model. *Applied Soft Computing*, 101, 107-123. https://doi.org/10.1016/j.asoc.2020.107123

Tsuen-Ho, H., Yen-Ting, H. C., & Jia-Wei, T. (2020). An evaluation model for selecting integrated marketing communication strategies. *Studies in Fuzziness and Soft Computing*, 258, 227-254. https://doi.org/10.1007/978-3-030-34629-4_11

Wang, J., & Zhang, L. (2022). Strategic alignment and knowledge sharing in technology-driven firms: A knowledge management perspective. *Technology Analysis & Strategic Management*, 34(6), 678-692. https://doi.org/10.1080/09537325.2021.1947492

Yahya, S., & Goh, W. K. (2002). Managing human resources toward achieving knowledge management. *Journal of Knowledge Management*, 6(5), 457-468. https://doi.org/10.1108/13673270210450414

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ETHICAL CONSIDERATION

Authenticity of the texts, honesty and fidelity has been observed.

CONFLICT OF INTEREST

Author/s confirmed no conflict of interest.