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Identifying and Prioritizing Managerial Competencies of the Ministry of Interior with an Emphasis on the Knowledge Dimension (Case Study: Strategic and Educational Studies Center of the Ministry of Interior)

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ABSTRACT

Knowledge represents the intangible assets of organizations, particularly within knowledge-based entities where it is housed within individuals. In this context, empowering human resources—where knowledge is the primary tool—emerges as an innovative approach to intrinsic job motivation. Organizations with efficient managers can ensure their success in the competitive and dynamic business environment. Studies show that only a few managers naturally possess all or most of the core managerial competencies, making team leadership come to them. For others, the development of competencies occurs over time through experience and effort. This research aims to identify and prioritizing the main components of managerial competences using a knowledge approach. The present research employs a phenomenological methodology; it is applied in terms of its objective and qualitative in terms of its approach. The interview process continued until theoretical saturation was reached with 8 participants of the Strategic Studies and Training Center of the Ministry of Interior. Research finding show, the 30 main indicators that are significant for managerial competencies with knowledge approach. the components of systemic approach, academic attitude, critical and analytical thinking, flexibility, teamwork, strategic management, knowledge management, professional ethics, empowerment, meritocracy, personal skills, trust building, performance management, and time management were of the highest importance to the organization's experts. Conversely, the components of creativity, systematization, and realism were of the least importance according to the organization's experts. ©authors.

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1. Introduction

In the contemporary era, the tangible assets of organizations are increasingly taking a backseat, necessitating their alignment with applied knowledge. Intangible assets and the ability to utilize them effectively have become critically important for organizations. Knowledge represents the intangible assets of organizations, particularly within knowledge-based entities where it is housed within individuals. In this context, empowering human resources—where knowledge is the primary tool—emerges as an innovative approach to intrinsic job motivation. This empowerment entails unleashing employees' inner potential and creating environments and opportunities for the blossoming of individual talents, capabilities, and competencies. Knowledge management, by collecting and storing employees' knowledge and by sharing this knowledge and experiences across the organization, provides insights into previous approaches, enhancing employee performance or suggesting new policies. Consequently, special attention must be paid to the identification and development of human resource competencies within organizations. Organizations with efficient managers can ensure their success in the competitive and dynamic business environment. Identifying and retaining talented human resources is of great significance for organizations. Each successful and efficient manager possesses various competencies that enable them to perform effectively at different managerial levels. Competency is a combination of knowledge, skills, behaviors, and attitudes that contribute to personal effectiveness and includes a set of knowledge, skills, behaviors, and attitudes necessary for effectiveness across a wide range of situations and different types of organizations (Bhardwaj & Punia, 2013). In this context, knowledge-based organizations are recognized as entities that primarily focus on the collection, analysis, and utilization of knowledge to improve processes, products, and services.

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and retaining talented human resources is of great significance for organizations. Each successful and efficient manager possesses various competencies that enable them to perform effectively at different managerial levels. Competency is essentially a combination of knowledge, skills, behaviors, and attitudes that contribute to personal effectiveness and includes a set of knowledge, skills, behaviors, and attitudes necessary for effectiveness across a wide range of situations and different types of organizations (Bhardwaj & Punia, 2013). In this context, knowledge-based organizations are recognized as entities that primarily focus on the collection, analysis, and utilization of knowledge to improve processes, products, and services. In such organizations, the creation and sharing of knowledge are ongoing processes. Knowledge-based organizations, by focusing on the creation and management of knowledge, can effectively operate in today's economic and social world. These organizations can enhance their capabilities and achieve their long-term goals through continuous improvement, innovation, and the use of knowledge as a primary asset (Yao et al., 2020). Managers in knowledge-based organizations play a highly critical and strategic role. creative leadership ability, innovation climate and knowledge sharing are found to impact positively on innovation behaviour. Additionally, knowledge sharing is found to regulate the relationship between innovation climate and innovation behaviour. (Ye et al.,2022).

Studies show that only a few managers naturally possess all or most of the core managerial competencies, making team leadership come to them. For others, the development of competencies occurs over time through experience and effort. However, once managerial competencies are acquired, better leadership and sustainable business success await the organization (William, 2024). According to research by the International Data Corporation, companies with collaborative work environments experience 30% less workflow disruption, 30% higher productivity, and 30% more revenue than their competitors. A crucial

element for a good collaborative work environment is having proper communication with the manager or team leader. Therefore, strong written and verbal communication skills are essential for managers. Managerial competencies also significantly impact communication. A competency framework is a fundamental organizational tool for managing managerial competencies, capable of identifying, assessing, and developing the necessary managerial competencies. Defined frameworks generally include core competencies, while specifically defined frameworks cover specialized competencies. Competency frameworks can encompass generally arranged competencies—i.e., a set of technical, social, or conceptual competencies—or they can form a set of unconventional and irregular competencies. Competencies within a specific list may be hierarchically arranged—from the most to the least important or based on the efficiency criteria of managerial activities (Tyrańska, 2016). Managerial competencies are deeply intertwined with the ability to navigate and process knowledge. Competency frameworks, which serve as fundamental tools for identifying, assessing, and developing managerial skills, gain significant utility when supported by knowledge processing technologies. These frameworks often incorporate a mix of technical, social, and conceptual competencies, and with the aid of knowledge management systems, can be dynamically tailored to address evolving organizational needs. Knowledge processing also plays a key role in uncovering gaps in managerial competencies, enabling targeted development plans to be implemented effectively. Moreover, through detailed analysis and dissemination of knowledge, managers can derive actionable insights to optimize decision-making processes. Knowledge management systems act as repositories of past experiences and strategies, offering guidance on effective approaches while proposing innovative solutions for new challenges (Yao et al., 2020). By integrating knowledge processing into strategic leadership, organizations can ensure managers are equipped to drive

sustainable growth and competitive advantage.

For the sustainable growth and survival of institutions, the alignment of managerial competencies with comprehensive knowledge processing strategies is paramount. Knowledge processing not only supports the effective assessment and implementation of competencies but also amplifies their impact by fostering innovation, adaptability, and improved managerial decision-making. Models of human resource and managerial competencies increasingly recognize the value of knowledge management, making its integration an essential step for organizations striving to maintain their competitive edge. To gain a deeper insight into the influence of knowledge processing on managerial competencies, illustrative examples can be presented as follows (Leoni et al., 2024):

Knowledge Repositories for Decision-Making

Organizations can create centralized knowledge repositories where managers can access case studies, best practices, and lessons learned. For example, a healthcare organization might use such a repository to help managers make informed decisions about resource allocation during emergencies.

AI-Powered Insights

Artificial intelligence tools can process large datasets to provide actionable insights. For instance, a retail company might use AI to analyze customer behavior, enabling managers to develop competencies in strategic planning and market analysis.

Collaborative Knowledge Platforms

Platforms like SharePoint or Confluence allow managers to collaborate and share knowledge across teams. This fosters the development of communication and teamwork skills, as managers learn from shared experiences and collective problem-solving.

Competency-Based Training Programs

Knowledge processing technologies can identify skill gaps in managers and recommend targeted training programs. For example, a manufacturing company might use data analytics to determine which

managers need training in supply chain optimization.

Scenario-Based Simulations

Organizations can use knowledge processing to create simulations that mimic real-world challenges. For example, a financial institution might develop a simulation to train managers in risk assessment and crisis management.

Feedback and Continuous Learning Systems

Knowledge management systems can collect and analyze feedback from employees and stakeholders, helping managers refine their leadership and decision-making skills over time.

Integrating knowledge processing into the strategic functions of institutions such as the Strategic Studies and Training Center of the Ministry of Interior significantly amplifies their role in advancing managerial competencies and organizational success. As a pivotal entity in the administrative structure, the Center contributes to the enhancement of governance quality through its foundational pillars of education and research. By adopting a knowledge-driven approach, which seamlessly integrates education, research, and technology, the Center fosters evidence-based decision-making and management practices across various governance levels.

The application of knowledge processing within this context serves as a powerful mechanism for developing managerial competencies. By leveraging centralized repositories of knowledge, actionable insights from artificial intelligence tools, and collaborative platforms, the Center equips managers with the tools needed to refine their skills in strategic planning, communication, and analytical decision-making. This approach not only strengthens managerial

capabilities but also ensures the implementation of innovative and effective governance strategies.

Consequently, emphasizing the development of managerial competencies through knowledge-driven methodologies within the framework of the Strategic Studies and Training Center contributes to the improvement of management quality, the optimization of decision-making processes, and enhanced operational efficiency at both the Ministry of Interior and affiliated institutions. This alignment highlights the transformative potential of knowledge processing in achieving sustainable growth and governance excellence. Derived from the study's objectives, the research questions are articulated as follows:

1. What are the fundamental components of managerial competence from a knowledge-based perspective, as perceived by managers?
2. How are the fundamental components of managerial competence, within a knowledge-based framework, prioritized according to managers' perspectives?

2. Literature Review

The competency of managers has been examined in various studies. In this regard, different frameworks and models have been outlined and designed by researchers. Several scholars have defined competency and introduced it as a combination of skills, knowledge, and behaviors essential for performing tasks. These definitions typically emphasize the importance of aligning competencies with environmental needs. Table 1 presents various definitions based on the perspectives and approaches of experts.

Table 1. Managerial Competency Concept

Definition	Reference
Managerial competence is a set of traits, behaviors, and characteristics that lead to successful performance.	Abraham et al. (2001)
Communication skills, leadership styles, and cultural awareness are focused on as critical components of managerial competence. Effective managers adapt their styles to suit diverse team dynamics.	Asumeng (2014)
Managerial competence is the ability to use skills, knowledge, and personal characteristics that improve the effectiveness and efficiency of managers in their job performance and, as a result, increase the likelihood of project success.	Delfanbeiranvand et al. (2021)
Managerial competence is the underlying characteristics of motivations, characteristics, self-image, skills, and knowledge that generate different types of actions and ultimately reflect the resulting action in a given situation.	Moradi et al. (2021)

Managerial competence as personal attribute of cognitive intelligence which was manifested by motivation and superior work performance.	Ngumo(2021)
Managerial competence refers to the skills, knowledge, and attributes that enable managers to effectively lead and direct their organizations.	Hastuti et al. (2023)
Technical competence, interpersonal skills, and ethical judgment are cited as essential competencies for managers. This suggests that managers with strong ethical standards foster trust and loyalty in their teams.	Bello et al. (2025)

In general, the research background on managerial competencies in knowledge-based organizations highlights the importance of these competencies in achieving organizational success and creating sustainable competitive advantages. Madani et al. (2022) conducted a study to design a competency model for managers at the University of Medical Sciences. The results from the analysis of expert interviews at the aforementioned university indicate that the managerial competency model at the University of Medical Sciences comprises 55 indicators within 8 components (strategic thinking, perceptual skills, service management, communication skills, ethical considerations, accountability, initiative power, authority, and independence).

In another study by Gholami et al. (2022), the competency model of human resource managers in crisis conditions was examined. This study identified the main components of Iranian-Islamic, individual-personal, interpersonal, organizational, and supra-organizational competencies, along with 18 sub-competencies, using the Delphi method and a panel of experts as the competencies of human resource managers in crisis conditions. According to the study results, the Iranian-Islamic components (adherence to religious values, Iranian-Islamic ethics, justice orientation), individual-personal components (pragmatism, adherence to ethics), organizational components (strategic guidance, optimal resource management, organizational intelligence, citizenship orientation, crisis management), and supra-organizational components (political intelligence, business acumen, cultural intelligence) were confirmed as priority indicators.

FarzanehKondori et al. (2018) proposed a framework to elucidate the competencies of Chief Knowledge Officers (CKOs). As a result of synthesizing the research findings, 60 codes and five main concepts were

identified: expertise in knowledge management, mastery of organizational business knowledge, interpersonal skills, managerial skills, and personal attributes. Additionally, the main concept of expertise in knowledge management includes six sub-concepts: strategies, processes, technologies, mechanisms, research, and knowledge management projects, in which the CKO must be proficient. Ultimately, two categories at the levels of technical and social competencies were identified: the concepts of expertise in knowledge management and mastery of organizational business knowledge as technical competencies, and the concepts of interpersonal skills, personal attributes, and managerial skills were classified as social competencies. Among the codes, the recognition of knowledge management applications and technologies was of the highest importance, and among the concepts, managerial skills had the highest coefficient of significance.

In a study by Ramadan et al. (2024), the competencies of managers in knowledge-based companies in Hungary were examined. The findings suggest that investment in managerial development, training, and sustainable growth is recommended for these types of companies. Additionally, the adoption of advanced management techniques, prioritizing customer satisfaction, embracing continuous improvement, and promoting knowledge sharing are crucial for optimizing operations in such businesses. Pharaoh and Visser (2024) studied the competencies of crisis managers from the perspective of university stakeholders. This study identified 10 managerial competencies perceived by stakeholders, among which eight competencies matched the existing crisis management competencies in the literature. The managerial competencies in this study include leadership, problem-solving, safety awareness, good communication, integrity, purposefulness,

flexibility/adaptability, customer focus, result orientation, and time management.

Liu (2021) conducted an empirical study on talent management strategies in knowledge-based organizations, focusing on entrepreneurial psychology and key competencies. The study aims to improve the effectiveness of talent management in science and technology companies while promoting sustainable development. It identified four essential factors: business execution ability, team collaboration ability, strategic thinking ability, and management decision-making ability, which encompass core competencies.

Martina et al. (2012) further examined managerial competencies in knowledge-based organizations. Their research emphasized the importance of communication and negotiation skills, dynamic personal competencies with a proactive and goal-oriented approach, and analytical and decision-making skills, along with systems and process-oriented thinking. These studies highlight the significance of these competencies in achieving organizational success and fostering sustainable competitive advantages, indicating a need for further research to accurately identify competencies and their impacts on organizational performance.

The reviewed research emphasizes the pivotal role of knowledge processing in developing managerial competencies, highlighting its significant impact on organizational success and the creation of sustainable competitive advantages, particularly in knowledge-based organizations. Knowledge processing, as a systematic approach to collecting, analyzing, organizing, and sharing information, serves as a transformative mechanism to empower managers and enhance managerial effectiveness.

The application of knowledge processing through tools such as knowledge management systems, data analytics platforms, and collaborative technologies enables the identification and prioritization of managerial competencies. Findings from various studies underscore the importance of leveraging knowledge-driven practices to tailor competencies to specific organizational

contexts. For instance, frameworks designed for crisis managers or Chief Knowledge Officers demonstrate how precise knowledge processing facilitates the identification of strengths and weaknesses in competencies while optimizing decision-making processes.

The research highlights the necessity of investing in education, skill development, and the adoption of advanced managerial techniques, made possible through data analysis and collaborative knowledge sharing. Furthermore, knowledge processing supports organizations in fostering critical competencies like strategic thinking, communication skills, and analytical decision-making by deriving actionable insights and identifying patterns from organizational data. Ultimately, the studies emphasize the need to implement robust knowledge processing methodologies to improve managerial competencies. Such approaches not only contribute to sustainable organizational growth but also pave the way for innovation and enhanced managerial performance.

In this context, the Strategic Studies and Training Center of the Ministry of Interior plays a critical role in advancing managerial competencies and enhancing decision-making processes by integrating education, research, and technology. A key factor in achieving these goals is the effective utilization of knowledge processing tools within the scope of managerial competencies. Through centralized knowledge repositories, the center provides managers with access to a wealth of case studies, best practices, and lessons learned, enabling evidence-based decision-making. Additionally, advanced data analytics are used to identify trends, generate actionable insights, and improve strategic planning capabilities.

By leveraging these knowledge processing tools, managers develop essential competencies in areas such as strategic thinking, communication, and analytical decision-making. Collaborative platforms further enhance these efforts by fostering knowledge-sharing environments, improving teamwork, and refining problem-solving skills. This approach not only empowers managers with the practical and theoretical

tools required for effective governance but also fosters organizational innovation and operational efficiency. Through the integration of knowledge processing into its educational and research initiatives, the center exemplifies a knowledge-driven strategy that aligns with sustainable development goals and solidifies the Ministry of Interior's position as a pioneer in evidence-based and knowledge-centric governance. This highlights the transformative potential of knowledge processing in optimizing managerial performance and institutional effectiveness.

3. Methodology

This study employs a phenomenological methodology, characterized by its applied objective and qualitative approach. Phenomenological analysis seeks to uncover and interpret the underlying meanings and essence inherent in the phenomenon under investigation (Habibi & Jalalnia, 2022). This methodological framework emphasizes the unique nature of individual experiences, aiming to achieve a deeper understanding of how reality is perceived and constructed by the participants.

Data Collection

The primary research tool utilized was semi-structured, in-depth interviews designed based on selected international managerial competency models. The study targeted managers of research groups at the Strategic Studies and Training Center of the Ministry of Interior, which encompasses three deputy areas: Research, Planning, and Training, with 10 research groups under the Research deputy. Prior to conducting interviews, the research objectives were explicitly explained to the participants to ensure clarity and transparency.

Interview Process

The interviews were conducted in a semi-structured format and continued until theoretical saturation was achieved with eight participants. The criterion for theoretical saturation was the point at which no new themes, ideas, or insights

emerged from the interviews. Each interview lasted between 40 to 120 minutes and was carefully recorded and transcribed for subsequent analysis. Measures were taken to uphold ethical standards, including obtaining informed consent for both the interview process and audio recordings, as well as ensuring the anonymity of the interviewees throughout the study.

Sample Selection Criteria

The selection of participants was based on their managerial roles within the Strategic Studies and Training Center, ensuring that:

1. Their expertise and experience align with the study's objectives.
2. Diversity across deputy areas was considered.
3. Participants demonstrated willingness and availability for comprehensive interviews.

Validation

In this study, triangulation was employed as a robust method to ensure the credibility and comprehensiveness of findings. Triangulation is a validation technique used to compare and cross-examine the data collected from multiple sources or perspectives. By doing so, it ensures the reliability of identified themes and enhances the depth of the analysis (Noble & Heale, 2019). The triangulation process involved the following steps:

1. Comparison of Participant Responses. The themes and topics emerging from each interview were systematically extracted and categorized. For example, recurring themes such as "strategic competencies," "effective communication," and "evidence-based decision-making" were noted across multiple interviews. The commonalities in participants' views strengthened the validity of the findings, while differences highlighted diverse perspectives that added depth to the analysis.

2. Expert Review. The research findings, including the identified themes, were reviewed by 2 experts. These experts assessed the coherence and alignment of the results with recognized managerial

competency frameworks, thus ensuring consistency and confirmability.

3. Comparison with International Competency Models. To enhance the credibility of the analysis, the themes identified from interviews were compared against international managerial competency models, which served as the basis for designing interview questions. This comparison confirmed that the identified competencies, such as "strategic thinking" and "analytical decision-making," align with established theoretical frameworks.

Through these steps, triangulation provided a multi-dimensional perspective on the data, ensuring its validity and reliability. By integrating participant responses, expert opinions, and theoretical

models, the findings offer a comprehensive understanding of managerial competencies within the context of the Strategic Studies and Training Center.

This rigorous application of triangulation aligns with the study's goal of developing a credible and practical framework for managerial competencies, leveraging diverse sources and perspectives to enhance the reliability of the research outcomes.

4. Findings

The demographic characteristics (gender, work experience, educational level) of the interviewees in the research are presented in the following table:

Table 2. Frequency and percentage distribution of interviewee characteristics

Gender	Count	Frequency	Work experience	Count	Frequency	Education level	Count	Frequency
Female	2	25%	1-10 years	6	75%	PhD.	6	75%
Male	6	75%	10-20 years	2	25%	Ms.	2	25%
Total	8	100%	Total	8	100%	Total	8	100%

The descriptive phenomenological method of Colaizzi (Colaizzi, 2006 as cited in Kr, 2021) was utilized for data analysis in this study. This method provides a systematic framework for understanding the essence and meaning of phenomena by interpreting individual long-term experiences and human behaviors in a holistic manner (Habibi & Jalalnia, 2022). The analysis followed a structured process as outlined below:

1. Data Collection :Comprehensive, in-depth interviews were conducted with experts and managers of research groups to gather rich qualitative data.

2. Transcription: Each interview recording was carefully transcribed into written text to ensure accuracy and completeness for subsequent analysis.

3. Familiarization: The researcher familiarized themselves with the content by conducting an initial reading of the transcribed data, identifying preliminary themes, and importing the data into MAXQDA10 software for systematic analysis.

4. Data Coding: Using MAXQDA10, primary codes were generated and assigned to

specific parts of the text to highlight key ideas and elements.

5. Theme Development: Codes were grouped into larger, overarching themes, with patterns and relationships among these themes identified.

6. Data Interpretation: The identified themes were interpreted within the context of existing theories and human experiences, providing a deeper understanding of the meaning embedded in participants' lived experiences.

7. Report Writing: The findings were synthesized and presented in a comprehensive report, emphasizing the theoretical insights derived from the analysis.

Following the analytical process, an initial set of 120 categories or codes and 41 final indicators or concepts were identified. Through a systematic process of filtering and refinement, the number of sub-themes was condensed to 53, while the primary indicators or overarching themes were distilled into 30 core concepts. This iterative approach ensured the extraction of the most relevant and meaningful themes, enhancing the precision and depth of the analysis. The table

below represents the results of the data analysis process:

Table 3. Main and Sub-Themes of Managerial Competencies

Row	Main themes	Sub themes
1	Creativity	<ul style="list-style-type: none"> - Generating New Ideas - Curiosity - Exploration
2	tolerance	<ul style="list-style-type: none"> - Tolerance of intellectual opponents
3	Systematic approach	<ul style="list-style-type: none"> - Comprehensive vision
4	academic Attitude	<ul style="list-style-type: none"> - Researcher - Understanding scientific processes
5	Critical and Analytical Thinking	<ul style="list-style-type: none"> - Thoughtful examination of issues - Analysis of issues
6	Intelligent	<ul style="list-style-type: none"> - Mental ability to understand issues
7	Flexibility	<ul style="list-style-type: none"> - Adaptability to changes - Focusing on the positive aspects of different positions
8	Teamwork	<ul style="list-style-type: none"> - Team building
9	Participation	<ul style="list-style-type: none"> - Solving collaborative group problems with collaborative management
10	Communication	<ul style="list-style-type: none"> - Establishing knowledge communication and human relations - Negotiation skills
11	Time Management	<ul style="list-style-type: none"> - Effective use of time
12	Conflict Management	<ul style="list-style-type: none"> - Constructive management of conflicts
13	Logical thought	<ul style="list-style-type: none"> - Identification of patterns - Accurate understanding of the problem
14	Leadership	<ul style="list-style-type: none"> - Encouraging human resources to cooperate
15	Continuous Knowledge Development	<ul style="list-style-type: none"> - Knowledge up-to-date
16	Organizing	<ul style="list-style-type: none"> - Optimal resource allocation - division of tasks
17	Transparency	<ul style="list-style-type: none"> - Having a specific vision and organizational goals - Goal setting
18	Systematization	<ul style="list-style-type: none"> - Compilation of standards - Compilation of procedures
19	Emotional Intelligence	<ul style="list-style-type: none"> - Understanding Emotional Emotion - Managing Emotional Emotion
20	Assertiveness	<ul style="list-style-type: none"> - Insistence to achieve knowledge goals
21	Change Management	<ul style="list-style-type: none"> - Leading change processes
22	Strategic Management	<ul style="list-style-type: none"> - Foresight - Scenario writing
23	Knowledge Management	<ul style="list-style-type: none"> - Use of experiences - Use of previous reports - Use of organizational processes and procedures
24	Professional Ethics	<ul style="list-style-type: none"> - Conscientiousness - Perseverance - Effort and persistence - Commitment - Belief in human dignity
25	Empowerment	<ul style="list-style-type: none"> - Improving knowledge capabilities - Developing employee knowledge
26	Meritocracy	<ul style="list-style-type: none"> - Attracting capable human resources
27	Personal Skills	<ul style="list-style-type: none"> - Self-awareness - Self-confidence - Self-control
28	Trust Building	<ul style="list-style-type: none"> - Creating space for conversations - Work without fear - frankness
29	Performance Management	<ul style="list-style-type: none"> - Achieving goals effectively, consistently and in an efficient manner
30	Realism	<ul style="list-style-type: none"> - Correct understanding of the current situation

After identifying the research indicators and determining the units of analysis (meanings and themes), the Shannon entropy¹ method was used to rank the data. Using Shannon entropy, the importance of the identified categories is evaluated based on the frequency of occurrence and observed frequency. The Shannon entropy method is derived from system theory. In information theory, entropy is an index for measuring uncertainty expressed through a probability distribution. Based on this method, known as the compensatory model, the content of the plan will be analyzed (Azar, 2001). Using the Shannon entropy method, the weight of each main category is determined. Shannon entropy analysis in this research was conducted in Excel.

Accordingly, a high entropy value indicates high information content and thus greater importance of the category. Additionally, the obtained entropy value can indicate uncertainty, which ultimately signifies its importance in managerial decision-making. This method provides a comprehensive and effective analysis in managerial topics. Based on this, the importance coefficient of each theme was calculated. Each theme with higher information content holds greater importance. For this purpose, the relation $W_j = E_j / (\sum E_j)$ is used. The table below shows the ranking of the main themes based on the Shannon entropy method:

Table 4. Shannon Entropy Distribution of Main Themes of Managerial Competencies

Main themes	Frequency	Importance factor	Information Load
Creativity	4	0.017316017	0.101328988
Tolerance	6	0.025974026	0.13679965
Systematic approach	9	0.038961039	0.182408729
Academic Attitude	9	0.038961039	0.182408729
Critical and Analytical Thinking	9	0.038961039	0.182408729
Intelligent	5	0.021645022	0.119693094
Flexibility	9	0.038961039	0.182408729
Teamwork	9	0.038961039	0.182408729
Participation	7	0.03030303	0.152860428
Communication	7	0.03030303	0.152860428
Time Management	9	0.038961039	0.182408729
Conflict Management	8	0.034632035	0.168025941
Logical thought	9	0.038961039	0.182408729
Leadership	9	0.038961039	0.182408729
Continuous Knowledge Development	9	0.038961039	0.182408729
Organizing	7	0.03030303	0.152860428
Transparency	6	0.025974026	0.13679965
Systematization	4	0.017316017	0.101328988
Emotional Intelligence	6	0.025974026	0.13679965
Assertiveness	7	0.03030303	0.152860428
Change Management	7	0.03030303	0.152860428
Strategic Management	9	0.038961039	0.182408729
Knowledge Management	9	0.038961039	0.182408729
Professional Ethics	9	0.038961039	0.182408729
Empowerment	9	0.038961039	0.182408729
Meritocracy	9	0.038961039	0.182408729
Personal Skills	9	0.038961039	0.182408729
Trust Building	9	0.038961039	0.182408729
Performance Management	9	0.038961039	0.182408729
Realism	4	0.017316017	0.101328988

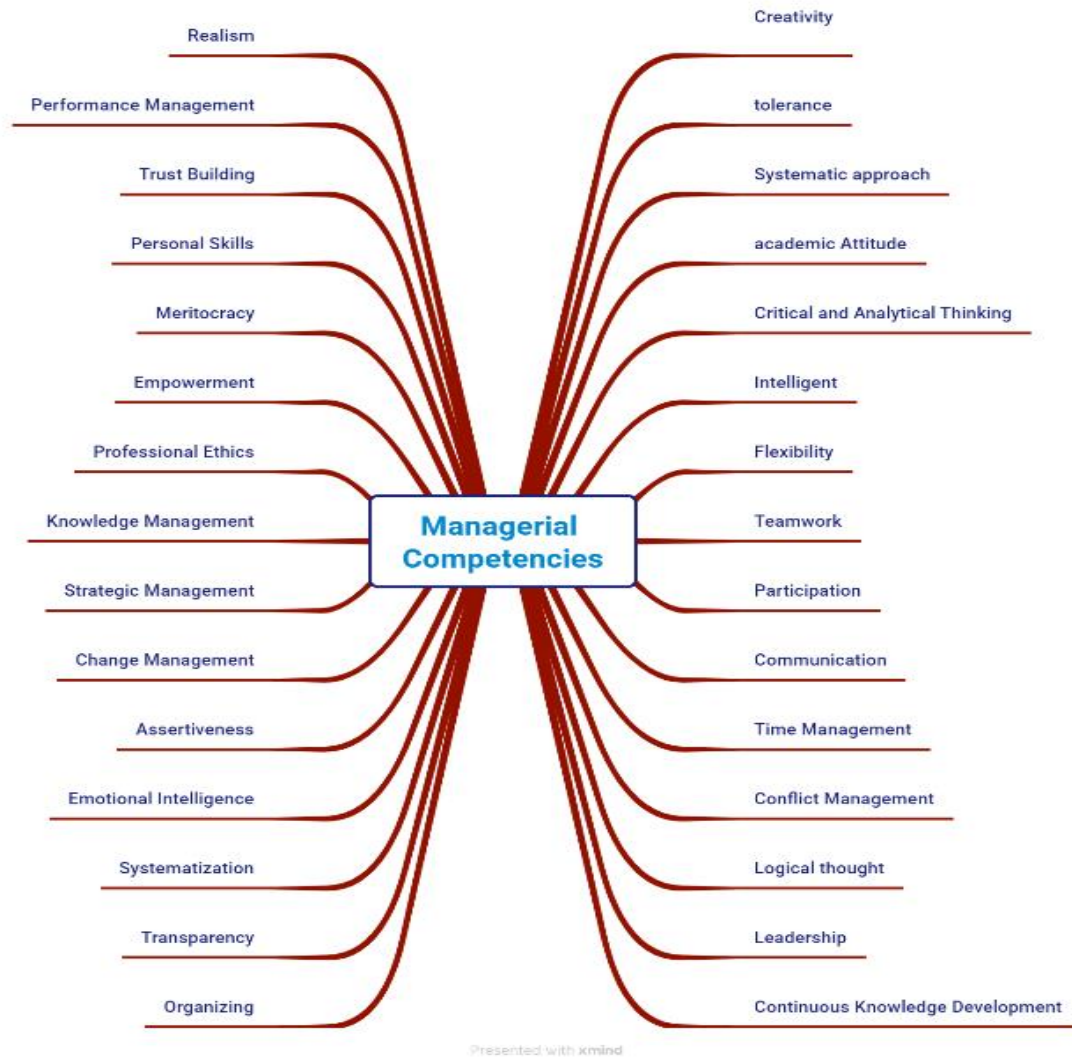
¹ Shannon entropy, also known as information entropy, is a measure of the uncertainty or randomness in a set of data. It quantifies the amount of information that is missing before the data is known

Based on the above table, it can be asserted that the components of systemic approach, academic attitude, critical and analytical thinking, flexibility, teamwork, strategic management, knowledge management, professional ethics, empowerment, meritocracy, personal skills, trust building,

performance management, and time management were of the highest importance to the organization's experts. Conversely, the components of creativity, systematization, and realism were of the least importance according to the organization's experts.

In the final stage, the data obtained were used to design a proposed model using Xmind software.

Figure 1. Model of Managerial Competencies on the Knowledge Dimensions



5. Discussion

In this study, considering the various definitions and perspectives on managerial competencies in organizations, an effort was made to review the theoretical foundations of managerial competency models through up-to-date and reputable sources using qualitative research methods. The aim was to

identify and Prioritization the important components and themes to provide an appropriate framework for managerial competencies with knowledge approach. The findings of this research are consistent with those of Madani et al. (2022), FarzanehKondori et al. (2018), Ramadan et al. (2024), and Martina et al. (2012).

Accordingly, the 30 main indicators that are significant for managerial competencies with knowledge approach are as follows:

Creativity: In an organization, creativity refers to the ability to generate new ideas, solutions, and innovations in the workplace. This concept not only applies to a fraction of employees but also contributes to the formation of an organizational culture where team members are encouraged to present ideas and embrace changes. From the perspective of the managers in this research, organizations whose knowledge approach is important for them, to align their facilities with the growth of managerial creativity can significantly impact the competencies of managers in such organizations.

Tolerance: Tolerance is one of the key attributes for achieving a constructive and effective environment in organizations. This trait not only helps improve intra-organizational relationships but also leads to increased overall performance and job satisfaction among members. From the perspective of the managers in this research, organizations whose knowledge approach is important for them, tolerance and acceptance of the opinions, criticisms, and behaviors of various organization members without negative reactions can significantly impact the competencies of managers.

Systematic approach: Systemic approach in the competencies managers enables them to make more informed decisions, optimize processes, and improve the overall performance of the organization. From the perspective of the managers in this research, a holistic view and systemic approach impact the competencies of managers.

Academic Attitude: An academic attitude refers to the use of scientific and evidence-based approaches for analysis, decision-making, and problem-solving in management. This attitude helps managers make decisions based on data, research, and precise analysis rather than merely relying on individual experiences or guesses. From the perspective of the managers in this research, an academic attitude significantly impacts the competencies of managers in such organizations.

Critical and Analytical Thinking: Critical and analytical thinking, as one of the key competencies of knowledge-based managers, refers to the ability to evaluate and analyze information, recognize logical arguments, and make informed and reasoned decisions. From the perspective of the managers in this research, possessing critical and analytical thinking in knowledge-based organizations significantly impacts the competencies of managers in such organizations

Intelligent: From the perspective of the managers in this research, intelligence in the competencies of knowledge-based managers refers to the ability to effectively utilize knowledge and information for decision-making, problem-solving, and innovation in complex and dynamic environments. This significantly impacts the competencies of managers in such organizations.

Flexibility: From the perspective of the managers in this research, flexibility refers to the ability to adapt and respond effectively to rapid and unexpected changes in complex and dynamic environments. This plays a key role in the competencies of managers in such organizations.

Teamwork: From the perspective of the managers in this research, teamwork is considered one of the essential competencies for managers in knowledge-based organizations. Success in these organizations requires effective collaboration, knowledge and information exchange, and creating an environment for innovation.

Participation: From the perspective of the managers in this research, participation refers to the process in which organizational members actively participate in decision-making and management processes. This approach emphasizes participation and collaboration, leading to innovation, improved performance, and increased satisfaction among managers and employees, significantly impacting the competencies of managers in such organizations.

Communication: From the perspective of the managers in this research, communication is one of particular importance in the competencies of managers in knowledge-based organizations, as these organizations

rely on knowledge, information, and effective collaboration to improve performance.

Time Management: From the perspective of the managers, time management is one of the key competencies for managers in knowledge-based organizations. This skill helps managers effectively manage human and informational resources and take advantage of learning and innovation opportunities.

Conflict Management: From the perspective of the managers in this research, conflict management is a key competency for managers due to the complex and multifaceted nature of these organizations, where conflicts among employees and groups may arise due to differences in ideas, opinions, and approaches. Managers in knowledge-based organizations must be able to manage conflicts effectively to ensure that these conflicts become opportunities for learning and improvement.

Logical thought: From the perspective of the managers in this research, logical thought is one of the essential competencies for managers in knowledge-based organizations. In such organizations that operate based on knowledge, information, and innovation, managers must be able to analyze issues and make logical and reasoned decisions.

Leadership: From the perspective of the managers in this research, leadership is one of the key competencies for managers in knowledge-based organizations. In these organizations, which rely on innovation, continuous learning, and collaboration, the role of managers as leaders is highly critical.

Continuous Knowledge Development: From the perspective of the managers in this research, continuous knowledge development is one of the fundamental competencies for managers in knowledge-based organizations. In these organizations, knowledge and information are considered the greatest assets, and managers must be able to leverage learning opportunities and effectively facilitate learning processes.

Organizing: From the perspective of the managers in this research, organizing is one of the vital competencies for managers in knowledge-based organizations. This competency includes creating appropriate

structures for knowledge management, coordinating teams and processes, and ensuring the effective use of human and informational resources.

Transparency: From the perspective of the managers in this research, transparency is of particular importance as a key competency for managers in knowledge-based organizations. In these organizations, which operate based on knowledge and information, transparency can help improve communication, trust, and overall organizational efficiency.

Systematization: From the perspective of the managers in this research, systematization is an important competency for managers in knowledge-based organizations. This process involves creating, implementing, and optimizing systems and processes necessary for effective knowledge management and utilization of information and human resources in the organization.

Emotional Intelligence: From the perspective of the managers in this research, emotional intelligence is one of the key competencies for managers in knowledge-based organizations. These organizations require an environment where effective communication, collaboration, and receptivity to criticism are emphasized. Emotional intelligence helps managers recognize and manage their own emotions and those of others, leading to improved team and organizational performance.

Assertiveness: From the perspective of the managers in this research, assertiveness is one of the key competencies for managers in knowledge-based organizations. This trait helps managers make effective decisions, create an atmosphere of trust and respect within teams, and respond to challenges and opportunities in the best possible way.

Change Management: From the perspective of the managers in this research, change often encounters resistance from employees. Managers must be able to identify and manage this resistance easily and accurately. Therefore, change management plays a key role in the competencies of managers in knowledge-based organizations.

Strategic Management: From the perspective of the managers in this research, strategic management is one of the essential

competencies for managers in knowledge-based organizations. This process helps managers develop and implement effective plans to achieve the organization's long-term goals, considering changing environments and upcoming challenges.

Knowledge Management: From the perspective of the managers in this research, in knowledge-based organizations, where knowledge and expertise are considered the main assets, knowledge management plays a vital role in organizational success and is a key component of managerial competencies.

Professional Ethics: From the perspective of the managers in this research, professional ethics in the management of knowledge-based organizations not only creates a healthy work environment but also enhances productivity and job satisfaction among employees. Managers who adhere to ethical principles can foster a culture where knowledge and knowledge management are effectively carried out.

Empowerment: From the perspective of the managers in this research, empowering managers in knowledge-based organizations not only increases their competencies but also creates a dynamic and creative work environment where knowledge is managed most effectively.

Meritocracy: From the perspective of the managers in this research, meritocracy in knowledge-based organizations requires attention to specific attributes, skills, and experiences. By implementing a meritocracy process, organizations can choose managers who are capable of successfully leading and managing in knowledge-based environments.

Personal Skills: From the perspective of the managers in this research, managers in knowledge-based organizations need a set of personal skills that help them effectively manage teams and projects, creating a learning and innovative environment.

Trust Building: From the perspective of the managers in this research, building and

strengthening trust not only improves relationships between managers and employees but also enhances innovation, learning, and ultimately the performance of knowledge-based organizations.

Performance Management: From the perspective of the managers in this research, performance management is recognized as a vital skill for achieving organizational goals and maintaining competitiveness in today's market. By setting clear goals, providing constructive feedback, developing skills, and creating an environment conducive to encouragement and collaboration, managers can help improve individual and collective performance in knowledge-based organizations.

Realism: From the perspective of the managers in this research, realism is considered a fundamental trait for effective management and sound decision-making. With the ability to analyze facts, manage expectations, and use reliable data, managers can respond more effectively to challenges and guide their organizations towards success. Realism helps managers act with an objective and strategic approach in today's complex and ever-changing world.

Knowledge processing is a critical tool for optimizing managerial decision-making within organizations. It involves the systematic collection, analysis, organization, and application of information to facilitate informed and strategic decisions. The competencies identified in this research—such as creativity, critical thinking, adaptability, and empowerment—play a pivotal role in leveraging knowledge processing to enhance managerial capabilities. By utilizing knowledge processing, managers can analyze structured information in innovative ways, uncover hidden patterns and opportunities, and align their decisions with organizational goals. Competencies like creativity and critical thinking benefit immensely from advanced knowledge processing tools, empowering managers to evaluate data comprehensively and address complex challenges effectively. This, in turn, enhances both individual and

organizational performance in dynamic environments.

Adaptability and empowerment also directly connect to knowledge processing, as managers must rapidly adjust to changing circumstances and empower their teams to utilize organizational knowledge effectively. Knowledge-sharing platforms facilitate teamwork and collaborative problem-solving, creating a supportive environment for innovation. Similarly, leadership and time management competencies are strengthened through real-time knowledge access and analytical tools, allowing managers to optimize resources and improve organizational processes efficiently.

Case studies demonstrate the significance of knowledge processing in boosting managerial performance. For instance, Microsoft employs AI-driven knowledge management systems to provide managers with comprehensive operational insights and market analysis. These technologies enable faster decision-making and enhanced productivity. Amazon uses predictive analytics in its knowledge processing systems to streamline supply chain management and elevate managerial efficiency. Google leverages knowledge processing to analyze market trends and technological innovations, aiding managers in strategic planning and decision-making. Overall, knowledge processing facilitates managerial decision-making by optimizing processes, enhancing competencies, and fostering a culture of innovation and collaboration. The competencies identified in this research can be substantially strengthened through these tools, emphasizing the profound impact of knowledge processing on organizational success.

6. Conclusion

Based on the findings of the research, the components of systemic approach, academic attitude, critical and analytical thinking, flexibility, teamwork, strategic management, knowledge management, professional ethics, empowerment, meritocracy, personal skills, trust building, performance management, and

time management are high-priority components on the competence of managers with a knowledge approach. On the other hand, these experts consider creativity, systematization, and realism to be low-priority components.

The results obtained from this research can help enhance the capabilities and competencies of managers in knowledge-based organizations, enabling them to respond to the specific challenges of these organizations with specialized competencies. These competencies help managers create an environment conducive to innovation, learning, and knowledge sharing within the organization.

To enhance the competencies of managers with knowledge approach organizations, various methods and strategies can be employed. Below are recommendations for improving these competencies:

- **Specialized Training Courses:** Conduct training courses in leadership, knowledge management, innovation, and communication techniques to strengthen managers' skills.
- **Establishing Mentorship Systems:** Utilize experienced mentors to assist managers in improving their leadership and knowledge management skills.
- **Engaging Specialist Consultants:** Invite specialist consultants to provide new insights and strategies in knowledge management and innovation.
- **Encouraging Continuous Learning:** Motivate managers and employees to learn from experiences, new training, and knowledge exchange.
- **Rewarding Learners:** Offer rewards and incentives to managers who actively participate in learning and knowledge sharing.
- **Utilizing Knowledge Management Tools:** Train managers in using software and online platforms for knowledge exchange and storage.
- **Data-Driven Analysis:** Provide courses for managers on data analysis to improve decision-making and identify trends.
- **Conducting Group Thinking Sessions:** Enhance strategic thinking skills through

brainstorming sessions and analytical gatherings.

- **Creating a Creative Environment:** Design an environment where employees and managers can easily propose and test their creative ideas.
- **Implementing 360-Degree Evaluations:** Use comprehensive evaluations that include feedback from colleagues, subordinates, and superiors.
- **Promoting Inter-Organizational Collaboration:** Create networks for knowledge exchange with other organizations and similar institutions.
- **Supporting the Formation of Specialized Groups:** Encourage managers to participate in specialized and professional groups to expand their knowledge and experiences.

To enhance the competencies of managers, the following research recommendations are proposed:

- **Conducting a Study to Identify Educational Needs:** Undertake a study to precisely identify the educational needs of managers in various domains, including knowledge management, leadership, and innovation. This research could include surveys and interviews with managers and employees.
- **Identifying and Analyzing Effective Organizations:** Identify and examine organizations that have effectively enhanced their managers' competencies and analyze the factors contributing to their success.
- **Develop Predictive Models for Managerial Competencies** Researchers can utilize machine learning algorithms to predict the required competencies for managers in dynamic environments. By analyzing organizational historical data, these models can identify key indicators of managerial success and propose strategies for improvement.
- **Analyze Organizational Data to Identify Patterns** Using advanced data analysis techniques, such as clustering and regression models, researchers can uncover patterns in organizational performance and employee feedback.

These insights can help identify gaps in managerial competencies and suggest pathways for enhancement.

- **Design Competency Assessment Systems** AI-based systems can be designed to assess managerial competencies using behavioral data, feedback mechanisms, and performance analytics. These systems provide a deeper understanding of strengths and weaknesses, enabling targeted interventions for competency development.
- **Optimize Knowledge Processing Frameworks** Researchers can focus on developing frameworks that integrate AI tools for knowledge management and processing. These frameworks would facilitate better access to organizational knowledge, provide refined analytics, and support managers in making informed decisions.
- **Study the Impact of Recommendation Systems on Managerial Competencies** AI-driven recommendation systems could be explored for their ability to suggest actionable steps for managers. Research could investigate how these systems improve critical competencies like strategic thinking, decision-making, and problem-solving.

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