The Role of Knowledge Management in Developing Managers (An Applied Study)

submitted by

Sanaa Moawad Ali Abu Shahata

Associate Professor of Business Administration

Misr University for Science and Technology

The College of Business Administration, Economics and Information Systems

Dr. Essam Lotfy Sayed Ahmed

Business Administration Lecturer

Higher Institute for Advanced Studies, Haram

International Journal of Administrative, Economic and Financial Sciences

volume (4), issue (12), january 2025

P-ISSN: 2812-6394 E-ISSN: 2812-6408

https://ijaefs.journals.ekb.eg/

Publisher

Association for Scientific Research Technology and the Arts

https://srtaeg.org/

دور إدارة المعرفة في تنمية المديرين

(دراسة تطبيقية)

إعداد

د/ ثناء معوض على أبو شحاته

أستاذ مساعد إدارة الأعمال

كلية الإدارة والاقتصاد ونظم المعلومات

جامعة مصر للعلوم والتكنولوجيا

د/ عصام لطفي سيد أحمد

مُدرس إدارة الأعمال

المعهد العالي للدراسات المتطورة بالهرم

المجلة الدولية للعلوم الإدارية والاقتصادية والمالية

دورية علمية محكمة

المجلد (٤) . العدد (١٢) . يناير ٢٠٢٥

P-ISSN: 2812-6394 E-ISSN: 2812-6408

https://ijaefs.journals.ekb.eg/

الناشر

جمعية تكنولوجيا البحث العلمي والفنون

المشهرة برقم ٢٧١١ لسنة ٢٠٢٠، بجمهورية مصر العربية

https://srtaeg.org/

ABSTRACT

This research aims to investigate the role of knowledge management in developing managers through an applied study of petroleum production companies within Greater Cairo City.

Knowledge Management is composed of three dimensions: Knowledge Acquisition, Knowledge Dissemination, and Responsiveness to Knowledge. Similarly, Developing Managers includes three dimensions: Achieving Results, Building Working Relationships, and Strategic Competencies. The researchers employed a descriptive method, which is the most commonly used approach in the social sciences. A survey was administered to gather data on the research variables, and the collected data were analyzed using appropriate statistical methods to achieve the research objectives and test the validity of the research hypotheses.

The study concluded that Knowledge Management has a positive and statistically significant effect on developing managers in petroleum production companies in Greater Cairo City.

Keywords: Knowledge Management, Developing Managers, Knowledge Acquisition, Knowledge Dissemination, Responsiveness to Knowledge, achieving results, Building working relationships, Strategic competencies.

المستخلص

يهدف هذا البحث إلى التعرف على دور إدارة المعرفة في تنمية المديرين من خلال دراسة تطبيقية لشركات إنتاج البترول بمدينة القاهرة الكبرى. وتتكون إدارة المعرفة من ثلاثة أبعاد: اكتساب المعرفة، ونشر المعرفة، والاستجابة للمعرفة. وبالمثل، يتضمن تطوير المديرين ثلاثة أبعاد: تحقيق النتائج، وبناء علاقات العمل، والكفاءات الاستراتيجية. وقد استخدم الباحث المنهج الوصفي وهو المنهج الأكثر استخدامًا في العلوم الاجتماعية. وتم إجراء استبانة لجمع البيانات حول

متغيرات البحث، وتم تحليل البيانات المجمعة باستخدام الأساليب الإحصائية المناسبة لتحقيق أهداف البحث واختبار صحة فرضيات البحث.

وخلصت الدراسة إلى أن إدارة المعرفة لها تأثير إيجابي ودال إحصائيًا على تنمية المديرين في شركات إنتاج البترول بمدينة القاهرة الكبرى.

الكلمات المفتاحية: إدارة المعرفة، تطوير المديرين، اكتساب المعرفة، نشر المعرفة، الاستجابة للمعرفة، تحقيق النتائج، بناء علاقات العمل، الكفاءات الاستراتيجية

Introduction:

Human resources are the most valuable asset of an organization, serving as a driving force behind all its activities. For a company to achieve its desired goals, effective management is crucial, particularly in the realm of human resources because they are essential for planning, organizing, directing, and mobilizing other existing assets within the organization. Human resources (HR) provide a competitive advantage by enhancing the efficiency, effectiveness, and flexibility of a company as it strives to meet its objectives. In era of globalization, where competition is fierce, organizations must carefully manage their assets to remain competitive. A critical asset that deserves attention is the human resources within the company (Stone et al., 2024).

Knowledge management (KM) has evolved over the past 25 years from an emerging concept to a widely adopted practice in business organizations. It serves as a crucial tool for gaining a competitive advantage. According to Sumbal et al. (2024), KM is a systematic and organized process that enables organizations to effectively utilize and store knowledge. This approach not only enhances the individual performance of employees but also boosts the overall performance of the organization. Furthermore, knowledge sharing fosters value creation (Agnihotri et al., 2024).

The capability of an organization to create value depends upon its ability to create, transfer and apply knowledge (Restuputri et al, 2024). Knowledge management deals with the process of making the best use of this shared knowledge within the organization at all levels. When employees exchange explicit and tacit knowledge through best practices, a systematic organizational environment is formed. KM can be used to help organizations identify, understand, and apply the knowledge that they have in the most effective manner possible to achieve its objectives (Rohma and Khoirunnisa, 2024).

The concept of KM has been around for years; however, it is still a relatively new concept in some small to medium organizations that are still in the process of implementing it. Multiple studies have characterized an organization's knowledge management (KM) capability in terms of KM processes and KM infrastructure. KM processes refer to the activities involved in knowledge creation, capture, storage, organization, dissemination, and application, all of which enhance organizational competitiveness. In contrast, KM infrastructure encompasses the elements that facilitate these KM processes.

According to Luthra et al. (2024), the key components of KM infrastructure include technology, organizational culture, and organizational structure, all of which influence performance outcomes. Technology is a crucial component of KM infrastructure as it aids in the creation, storage, retrieval, and distribution of knowledge (Bashir et al., 2024).

Knowledge management encompasses the norms, values, and beliefs that influence individual behaviors within an organization and their responses to change (Bashir et al., 2024). These elements are crucial in shaping an organization's overall performance, and their alignment can help the organization achieve its objectives. One of the significant challenges that organizations face is effectively managing their knowledge. According to Dei (2024), the complex nature of knowledge-based

resources often leads to knowledge management being either ineffective or inconsistent.

The Developing Managers concept focuses on building trust between management and employees, motivating them, encouraging their participation in decision-making, and eliminating internal administrative and organizational barriers for the benefit of the organization.

Managerial learning occurs fairly constantly in the workplace but needs to be elicited; otherwise, it risks not being applied in new settings. As pointed out earlier, the learning going on is often tacit to working managers who, unfortunately, are unable to develop a cohesive explanation of their knowledge and skill. We need a practice that can convert the tacit or implicit learning into explicit knowledge. This is the purpose of action learning. It attempts to highlight the practical knowledge that is on the doorstop of the learner but for his or her systematic examination of it. In this way, action learning modifies conventional learning approaches available through classroom and training events (Raelin & Coghlan, 2006).

1. Theoretical Framework:

1.1 knowledge management:

1.1.1 Definition of Knowledge Management:

Many definitions of the term "knowledge management" (KM) that have been used in the literature. Table 1 provides Examples of key definitions of (KM). However, KM is defined in this research in a way that copes with the objective of this study; so the researchers defined it as a set of distinct and well-defined processes and techniques, which include systematic procedures based on technologies and practices, that motivate effective creation, capturing, organization, distribution, use and sharing of both useful tacit and explicit knowledge, to enable individuals of the organization to be more effective and productive in their work in order to generate value for the projects and the organizations.

Table 1: Definitions of Knowledge Management

References	Definitions
(Lehrer, 2018)	"The effective learning processes associated with exploration, exploitation and sharing of human knowledge (tacit and explicit) that use appropriate technology and cultural environments to enhance an organization's intellectual capital and performance."
(Hislop et al, 2018)	"It is a set of distinct and well-defined approaches and processes. The overall purpose of knowledge management is to maximize the enterprise's knowledge related effectiveness and returns from its knowledge assets and to renew them constantly."
(Bettiol, 2020)	"It can be used to describe the panoply of procedures and techniques used to get the most from a firm's knowledge assets. The knowledge management requires the development of dynamic capabilities and the ability to sense and to seize opportunities quickly and proficiently."
(Lewis, 2020)	"The KM is a managerial paradigm which considers knowledge as a resource at the basis of a company's competitiveness. It identifies the capabilities to generate value for a company's stakeholders with the explicit and systematic implementation of approaches, techniques and tools for the assessment and management of intellectual capital."
(Chopra et al, 2021)	"It is an approach to adding or creating value by more actively leveraging the know-how, experience, and judgment resident within and, in many cases, outside of an organization."
(Quarchioni et al, 2022)	"It is an emerging set of organizational design and operational principles, processes, organizational structures, applications and technologies that helps knowledge workers dramatically leverage their creativity and ability to deliver business value."
(Jarrahi et al, 2023)	"Knowledge management (KM) is an effort to increase useful knowledge within the organization. Ways to do this include encouraging communication, offering opportunities to learn, and promoting the sharing of appropriate knowledge artifacts."
(Zhang et al, 2024)	It is the process of continually managing knowledge of all kinds to meet existing and emerging needs, to identify and exploit and acquire knowledge assets and to develop new opportunities."
(Bashir, 2024)	"It is the management of information within an organization by steering the strategy, structure, culture and systems and the capacities and attitudes of people with regard to their knowledge. It is the achievement of the organization's goals by making the factor knowledge productive."

Source: by authors

1.1.2 The benefits of knowledge management:

New knowledge enables organizations to sustain innovation by creating new markets and attracting customers. Innovation has become the most significant factor influencing a business's success (Hislop et al., 2018). Additionally, effective knowledge management can help organizations increase profits, explore new markets, reduce costs, enhance productivity, improve decision-making, meet customer demands, and achieve their goals (Alves et al., 2024). The figure below shows how knowledge management impacts organizational processes.

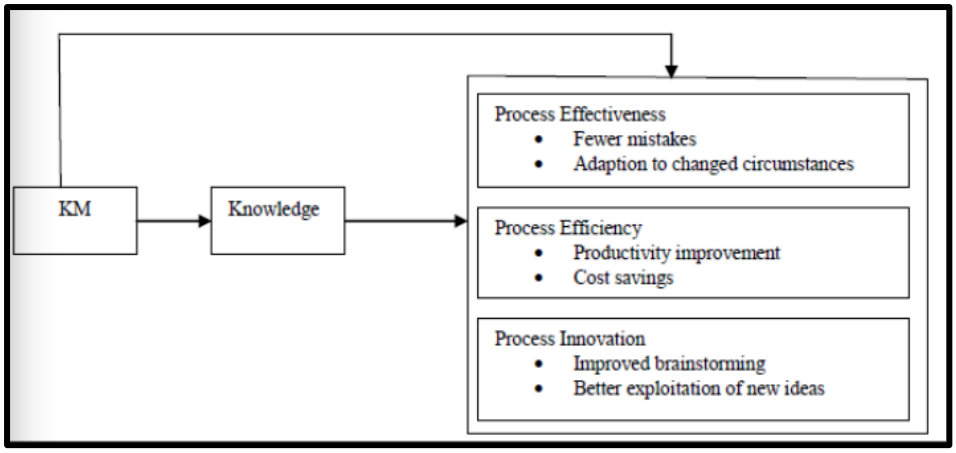

Figure 1: The KM model

Source: (Sumbal et al, 2024)

According to Figure 1, knowledge management can significantly improve organizational processes, effectiveness, efficiency, and innovation by helping organizations select and implement the most appropriate processes. As a result, knowledge management can effectively enhance employees' knowledge, boost job performance, and increase their market value (Anumba et al., 2008). Furthermore, it empowers employees to make informed decisions, leading to higher job satisfaction, improved performance, increased productivity, and greater employability (Jashapura, 2004).

Employees have easy access to facts, sources of information, and solutions within the organization. The relationship between knowledge management (KM) and its benefits is quite complex, as outlined in the areas mentioned below. However, it is essential to gain a clear understanding of this relationship. We reference Agnihotri et al. (2024) in distinguishing three types of benefits: (1) knowledge benefits, (2) intermediate benefits, and (3) organizational benefits (see Figure 2).

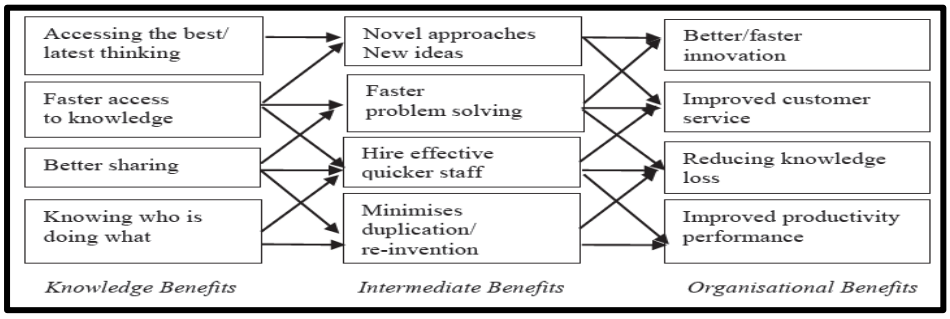

Figure 2: Three types of KM benefits

Source: (Agnihotri et al, 2024)

This brief analysis examines the complexities of Figure 2, focusing on the various benefits derived from knowledge.

1- Knowledge Benefits: The potential savings in time can be tracked through four sources: (1) access to the best and latest ideas, (2) quicker access to knowledge, (3) improved knowledge sharing, and (4) awareness of who is engaged in specific tasks. The connections between these knowledge benefits and their results are indicated by arrows, with each source contributing a maximum of three benefits.

2- Intermediate Benefits: Managers can experience the following benefits: (1) innovative approaches and fresh ideas, (2) quicker problem-solving capabilities, (3) the ability to hire effective and efficient staff, and (4) a reduction in duplication and re-invention of services. These intermediate

benefits serve as a foundation for organizational benefits and are linked by arrows, with each source also producing a maximum of three benefits.

3- Organizational Benefits: At the organizational level, benefits may include (1) faster and more effective innovations, (2) enhanced customer service, (3) reduced knowledge loss, and (4) improved overall productivity. Typically, organizations may have four or even five classes of benefits rather than just three. For example, organizational benefits can be divided into two categories: internal benefits and customer or market-related benefits. This classification depends on the target population.

1.1.3 Dimensions of knowledge management:

KM basically involves three processes: knowledge acquisition, knowledge dissemination, and responsiveness to knowledge. In the past, managers tended to base their competitive market strategy on utilizing (1) product-based resources, (2) work processes, and (3) technology (Reychav and Weisberg, 2009). Today, however, organizations view human capital as one of their most important resources, because employees possess organizational knowledge that can make or break an organization's competitive market edge (Hislop et al., 2018).

- **Knowledge acquisition:**

Knowledge acquisition is the process of absorbing and storing new information in memory. Knowledge acquisition enables organizations to develop their competencies to create new knowledge and skills and elevate uniqueness and value (Choo, 2013). Also, the knowledge base view asserts that the knowledge acquisition for organizations enables the creation of novel knowledge and allows organizations to improve their competitive advantage (Wahid et al., 2015). According to Fraihat and Samadi (2017), the "knowledge management process capability" starts with acquiring knowledge from the organization's inner and exterior sources. Dehghani and Akhavan (2017) highlighted that knowledge acquisition is an essential process in institutions

because almost 90 percent of the organization's knowledge lies in its employees' minds and should be stored in the organizational memory.

Gaines (2013) stressed that knowledge acquisition, with its technological tools, has facilitated the creation, utilization, and access of knowledge in a way that has never been known in this millennia. Abker et al. (2019) emphasized that knowledge acquisition is crucial for new knowledge application as it permits replacing the existing content of the explicit and implicit knowledge possessed by the organization. Bloodgood (2019) stressed that organizations should assess knowledge acquisition to attain the necessary knowledge critical for their work processes and not increase their knowledge application costs caused by the uncritical knowledge acquired.

- **Knowledge Dissemination:**

Grant (1996) described how the amount and level of mutual knowledge affect the ease of knowledge dissemination. The more mutual high-level knowledge, the easier it is to share knowledge. Regarding the formation of mutual knowledge, the following factors all play a critical role: common language, symbolic communication, professional and common knowledge base, shared meaning, and domain specific understanding.

Research indicated that the dissemination of knowledge requires effective strategies, and that customized and specific information can enhance the effectiveness of knowledge dissemination (Chapman et al., 2020). Knowledge dissemination is the degree to which information is distributed, shared, and discussed among relevant users within an organization by formal and informal means (Chapman et al., 2021).

- **Responsiveness to knowledge:**

Responsiveness to knowledge is one of the dimensions of KM (i.e., knowledge acquisition, knowledge dissemination and responsiveness to knowledge). Since KM is a process that transforms individual knowledge into organizational knowledge (Rasula et al., 2012), the dimensions of KM allow organizations to learn, reflect, unlearn,

relearn, build, maintain and replenish its core competencies (Bhatt, 2001). Responsiveness to knowledge also known as knowledge application is described as developing the knowledge acquired, enabling the use of the knowledge to be more effective so as to increase its worth (Ng et al., 2012).

Responsiveness to knowledge has also been defined based on the perspective of market orientation (Kohli & Jaworski, 1990; Narver & Slater, 1990; Kohli et al., 1993). From a market intelligence perspective, responsiveness is established by the generation and sharing of information, while from an organizational culture perspective, responsiveness is constructed from three behavioral elements: orientation to customer needs; actions of competitors; and inter-functional combination (Homburg et al., 2007).

1.2 Developing Managers:

1.2.1 Concept of Human Resources Development:

Human Resources Development (HRD) has become a crucial focus for organizations today, despite its historical practices. Interest in HRD as a scientific field began around 1958, spearheaded by various economic and managerial thinkers (Swanson, 2022). Definitions of Human Resources Development have varied among researchers due to their diverse cultural, civilizational, and intellectual backgrounds. Here are some definitions:

- "The preparation of individuals in a way that aligns with societal needs, based on the belief that enhancing knowledge and abilities leads to more effective utilization of natural resources, as well as increased capacities and efforts" (Garavan, 2007).
- "The increase in knowledge, abilities, and skills of the workforce, capable of working across all fields, assessed and selected based on various tests" (Okoye,2013).

- "The comprehensive development of an environment that enhances the well-being of the community in aspects such as health, education, social, and psychological factors. The goal is to achieve holistic growth for students by unlocking their potential and employing it to become productive members who can contribute to national development plans and tackle the challenges of modern society" (Piwowar et al., 2024).

Human Resource Development (HRD) refers to a comprehensive and innovative approach to enhancing knowledge and behaviors related to work. This approach encompasses a variety of learning strategies and techniques designed to help individuals, teams, and organizations reach their full potential. By fostering critical thinking and encouraging innovation, HRD aims to strengthen teamwork and enhance team spirit. (Swanson, 2022).

1.2.2 The concept of developing managerial skills:

Management skills play a crucial role in enhancing the performance of individuals within business organizations. They not only help individuals develop themselves but also align with contemporary strategies for improving human resources and overall organizational performance. These skills encompass processes designed to enhance the abilities, skills, and knowledge of all individuals in society, particularly those within organizations (Al-Hilu, 2010).

Management development is an ongoing, complex, and comprehensive process. It focuses on understanding the environmental factors that impact the organization, designing an administrative structure that supports management activities, examining current work methods and procedures, and updating the systems that govern operations. Skill is defined as "the degree of accuracy in completing tasks as quickly as possible and at the lowest cost". It encompasses speed, precision, and comprehension. Skill is not necessarily an innate ability; rather, it is developed through practice and is reflected in performance rather than potential (Al-Qaisi and Mahmoud, 2015).

According to Griffin and Moorhead (2014), managers require a diverse set of skills, including technical, interpersonal, analytical, and diagnostic abilities. The significance of these skills varies depending on the organizational level. For senior managers, analytical and diagnostic skills are particularly crucial, while technical skills and personality traits are more essential for first-line managers.

The essence of effective leadership involves the ability to manage subordinates by encouraging them to actively participate in collaborative efforts where Leaders work continuously to influence and persuade individuals to embrace their roles in achieving the organization's goals (Helou, 2010).

Sharma (2016) asserts that a manager's primary responsibility in an organization is to achieve its goals by effectively utilizing human and material resources. Since human resources drive and utilize material resources, they are regarded as the most valuable asset in any organization so there is a need for managers to be highly skilled and adept at selecting the right human resources.

1.2.3 The concept of Developing Managers:

The researchers reviews various definitions that capture different perspectives on manager development.

"It is the sum of the manager's abilities, knowledge and skills that enable him to perform an outstanding job performance that exceeds normal performance compared to his colleagues in the same field, to the extent that it enhances his organization's ability to compete within the local and global context (Lan & Hung, 2018)"

Bratton et al. (2021) defined developing managers as: "It is a set of abilities, skills, competencies, knowledge, experience, and other personal characteristics that are crucial and influential for leaders and managers to succeed, develop professionally, and achieve better performance"

While Crespo et al. (2021) defined developing managers as: "The set of values, implicit skills and abilities of leaders and managers that enable them to predict

behavior, plan, direct, motivate and contain critical situations efficiently and effectively in order to achieve long-term goals".

Another definition by Mathis et al. (2017) as: "A combination of knowledge, skills, abilities and other personal traits, which are necessary for leadership to succeed and professional development, to deliver better performance, and to achieve the goals of the organization efficiently and with high quality".

Based on the definitions provided, the researchers defines the development of managers as the values, skills, and behaviors inherent in leaders and managers. These attributes positively influence their management practices, enabling them to act professionally and excel in various administrative situations. This development helps them achieve desired goals effectively, utilizing available resources and surpassing standard performance levels.

1.2.4 The importance of developing managers:

The development of managers is crucial for organizations as it equips them to handle increasing variables and evolving requirements. Leadership skills enable the investment of knowledge, skills, and abilities that individuals possess, facilitating the achievement of desired goals, so the importance of developing managers can be highlighted in the following points (Burke & ANoumair, 2015):

- Enabling the organization to systematically invest in and enhance the capabilities of its members.
- Providing essential information to facilitate strategic decision-making within the organization.
- Offering additional planning data that aligns with the organization's development and goals.
- Streamlining leadership activities and administrative processes while establishing a common framework for collaboration.

The development of managers involves planning, monitoring, and identifying the gap between current capabilities and what is needed. Additionally, it includes measuring individual performance levels, managing their knowledge, skills, and attitudes, as well as preparing professional development plans for them. The development of managers provides officials with the cognitive skills, behaviors and abilities required to meet the needs of Personnel Selection, and also helps them formulate plans for the development of individuals and teams, in order to reduce the gap in performance by developing the merit that supports the strategy of the organization (Burke & ANoumair,2015).

The researchers argue that organizations today must invest in developing the leadership skills of their leaders and managers. These skills are crucial for empowering individuals and helping them achieve the organization's vision and goals. By fostering strong leadership, organizations can enhance work performance and ensure tasks are completed efficiently and uniquely. This focus not only centralizes efforts but also minimizes costs associated with the development, training, and qualification of individuals.

1.2.5 Dimensions of developing managers:

The researchers identified the dimensions of managers' development based on the model provided by the Organization for Economic Co-operation and Development (OECD). In 2014, this organization introduced a general framework that includes three models for managers' development, each corresponding to different job categories. These models are designed for senior leadership positions, analyst and researchers' roles, and administrative and clerical jobs. The model for senior leadership positions consists of fourteen competencies grouped into three categories, as follows:

- **competencies linked to achieving results:** It includes five competencies: (analytical capabilities, focus on production, flexible thinking, the ability to manage

resources efficiently and effectively, and the ability to form work teams and lead them effectively).

- **Social competencies and building relationships:** It includes five competencies: (customer focus, diplomatic sensitivity, ability to influence, ability to negotiate, and organizational knowledge).
- **Strategic competencies:** It includes four competencies: (the ability to develop talent, the ability to direct the organization, and the ability to build a network of relationships).

2. Exploratory Study:

The researchers conducted a field survey in March 2024, involving 50 individuals, to identify challenges in the realm of knowledge management and to form a preliminary understanding of the study problem. They carried out structured personal interviews with a random sample of employees at three administrative levels: senior management, middle management, and operational management in the oil companies under investigation. The interview questions included:

1. How well do employees understand knowledge management?
2. How are the dimensions of knowledge management applied?
3. What are the foundations for developing managers?
4. Can knowledge management influence the development of managers?
5. What obstacles might hinder effective knowledge management?

Through this exploratory study, the researchers identified several key phenomena related to the problem under investigation as below:

1- 90% of employees lack comprehensive knowledge of the various dimensions of knowledge management, even though fifty percent actively apply most of these dimensions.

2- 38% of respondents believe that the current environmental climate is unsuitable for advancing knowledge management, which negatively impacts management decisions.

3- 50% of the sample indicates that there is a lack of proper planning for developing managers. This process requires multidisciplinary collaboration among all departments within the companies studied, necessitating an integrated, simultaneous, and harmonious approach to planning. Knowledge management and manager development also require that environmental concerns be better integrated into the planning program, which involves training and guidance for all participants.

4- 62% of respondents feel there is a deficiency of trained professionals in many areas, and the companies examined lack the capability to produce and adapt technologies that meet the requirements for developing managers.

3. Research Problem:

Academically, a research gap in the study of the impact of knowledge management on developing management exists as a literature review didn't gather between them. Most researchers have focused only on developing the skills required for managers, whether technical skills, leadership skills, or requirements of developing management. However, these variables are relatively old separately.

Practically, the petroleum sector faces increasing problems in knowledge management and developing managers, as demonstrated by the exploratory study conducted on petroleum companies in Greater Cairo, which negatively affects organizational performance, so petroleum companies need to adopt new strategies to improve their performance. In addition, the literature review did not discuss the relationship between knowledge management and developing management in the same sector. Therefore, the researchers formulated the study problem with the following questions:

1. Do employees know dimensions regarding the knowledge management in the petroleum companies?
2. Are the developing managers dimensions present in the petroleum companies?

3. Can all knowledge management dimensions affect developing managers in the petroleum companies?

4. Research Objectives:

The research seeks to achieve the following objectives:

1- examining two relatively new concepts: knowledge management (the independent variable) and developing managers (the dependent variable). It aims to define their dimensions to better understand their impact in the workplace.

2- Analyzing the relationship between these two variables and investigates their correlations.

3- presenting findings along with recommendations and suggestions that can help maximize the benefits of the relationship between knowledge management and manager development.

5. Research Hypotheses

The main Hypothesis research:

"There is a statistically significant effect of Knowledge management with its dimension (Knowledge acquisition, Knowledge Dissemination, Responsiveness to knowledge) To achieve the Developing managers with its dimension (Achieving results, Building working relationships, Strategic competencies) in Petroleum Companies in Cairo. From this hypothesis comes the following sub-hypotheses:

- There is a statistically significant effect of Knowledge management with its dimension (Knowledge acquisition, Knowledge Dissemination, Responsiveness to knowledge) on the dimension of **Achieving results** which is one of the Developing managers dimensions in Petroleum Companies in Cairo.
- There is a statistically significant effect of Knowledge management with its dimension (Knowledge acquisition, Knowledge Dissemination, Responsiveness

to knowledge) on the dimension of **Building working relationships** which is one of the Developing managers dimensions in Petroleum Companies in Cairo.

- There is a statistically significant effect of Knowledge management with its dimension (Knowledge acquisition, Knowledge Dissemination, Responsiveness to knowledge) on the dimension of **Strategic competencies** which is one of the Developing managers dimensions in Petroleum Companies in Cairo.

6. Research Model:

The relationship between knowledge management and developing managers can be illustrated in figure No. (3):

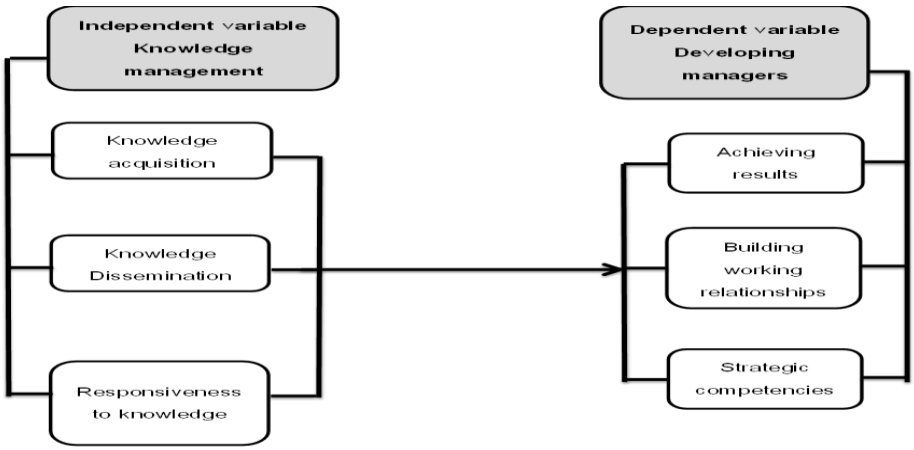

Fig (3): Research Model.

Source: Researcher preparation

7. Research Importance:

- **Academic Importance**

Developing managers has been recognized as one of the most critical issues in Human Resources Management. The effectiveness of human resources relies on the growth of individuals in their jobs, aligned with their potential and traits. Job consistency and employees performing repetitive tasks do not yield the efficiency and effectiveness required in today's fast-paced

technological environment. Consequently, businesses of all sizes—whether private or public—strive to improve work design systems by implementing strategies that enhance employee performance.

There is a significant shortage of research in the Arabic library concerning the correlations between knowledge management, its various forms and types, and the practices of Workforce Relationship Management (WRM) in developing managers. Such studies would provide valuable insights for both scholars and practitioners, guiding them toward best practices and strategies to improve corporate performance and profitability in the business sector.

- **Practical importance:**

  The practical importance is derived from its positive and active practices that can be recommended or suggested to those key decision makers in Petroleum Companies in Cairo in the issues of the various HR practices especially these belonging to the developing managers processes. Businesses cannot achieve their stated and desired goals effectively and efficiently without highly satisfied and loyal workers.

8. The Research Methodology

A- Research methodology and philosophy

The researchers used the descriptive method, which is the most commonly used approach in the social sciences. This method involves collecting data in real-world conditions, ensuring transparency in the ways primary data is gathered, and acknowledging the lack of control over the research environment. The study was conducted using a survey to gather information on the research variables. The collected data was then analyzed using appropriate statistical methods to achieve the research objectives and to test the validity of the research hypotheses (Nassaji, 2015).

The researchers relied mainly on positivism, or what is also called deterministic philosophy, which focuses on constructed theories and their application, whether with regard to the independent variable (Knowledge Management), or regarding the dependent variable (Developing managers). Positive philosophy is concerned with focusing on quantifiable observations that are analyzed statistically. (Awaad, 2019: 28)

The research also relied on the philosophy of phenomenology, particularly in monitoring certain phenomena related to the research variables during the exploratory study, especially concerning the dependent variable of developing managers. However, the researchers did not design a study that captures the full picture of these phenomena, as this was not one of the research objectives. Specifically, the study does not aim to investigate the causes and consequences of developing managers within the research population.

B- The research population and sample:

- **Study population:**

The study population consists of petroleum production companies located in Greater Cairo City, totaling 32 companies. These companies are categorized as follows: one public sector company, three companies subject to investment law, two Concession companies, and 26 joint sector companies. Since the majority of petroleum production companies operate within the joint sector, this area has been selected as the focus for the study. The sample includes 15 joint petroleum companies, excluding those with fewer than 100 employees. The following table lists the names of the companies along with their respective employee counts.

Table (2) Petroleum Companies in Greater Cairo

company name	number of employees
Agiba Petroleum Co	1000
Amal Petroleum Co	200
BADR Petroleum Co. (BAPETCO)	1200
Belayiem petroleum Co	4000
Oapco - Oasis Petroleum Co	130
Petro Nefertiti Co	250
Geysom Oil's Co	480
Gulf of Suez Petroleum Co – GUPCO	3600
Khaleda Petroleum Co	750
Qarun Petroleum Co	455
RASHID PETROLEUM Co	110
Suez Oil Co (SUCO)	1250
Waspetco - Wadi El Sahl Petroleum Co	105
Western Desert Operating Petroleum Co (WEPCO)	855
East Zeit Petroleum " ZEITCO" Co	115
Total	14530

Source: Petrotrade Directory for Petroleum Companies Operating in Egypt, (2024), Petroleum and Petroleum Sector Companies, 5th Edition, July.

- **Study sample**

- The research sample refers to the specific group targeted by the survey. The sample consists of employees from upper and middle management, as well as supervisors from operational management, working in the petroleum companies mentioned within the study's population.
- To ensure that the research sample accurately represents the research population, Stratified Random Sampling was chosen as the most suitable method. This decision reflects the various layers within the research population, specifically the number of employees at different administrative levels, including middle management and executive management. The sample size for the study has already been determined based on the following equation (Thompson, 2010: 59-60):

$$n = \frac{N \times P\,[1-P]}{\{\,[N-1 \times (d^2 / z^2)] + P(1-P)\,\}}$$

- N: the size of the Research population.
- Z: is the standard score for the permissible error and equals to 1.96 at a confidence factor of 95%, which is the most common in social research.
- P: is the probability that to the item will appear and is equal to 0.5.
- D: error rate equal to 0.05

So, sample size (n) = 385 individuals.

C- Questionnaire design:

The survey list is divided into three main axes as follows:

1. Demographic data:

They include both:

- Type (two categories).
- Age (4 categories).
- Career level (3 categories).
- Experience level (3 categories).
- Educational level (3 categories).

2. Knowledge Management:

Knowledge Management was measured based on the scale developed by (Rohma and Khoirunnisa, 2024). This scale consists of 28 statements, which are measured on a Likert scale of five points, ranging from (1) completely disagree to (5) completely agree, and it assesses three dimensions of Knowledge Management:

- **Knowledge Acquisition:** consists of (10) statements (statements X1 to X10).
- **Knowledge Dissemination:** consists of (9) statements (statements X11 to X19).

- **Responsiveness to Knowledge:** consists of (9) statements (statements X20 to X28).

  The researchers performed confirmatory factor analysis for the scale in its three dimensions, including 28 phrases, in order to identify phrases with significant standard regression coefficients that should be retained, and those phrases with non-significant standard regression coefficients that should be excluded. As the researchers will explain later in the special part Confirmatory Factor Analysis in this research.

3. Developing managers:

Developing managers was measured based on the scale developed by OECD, and this scale consists of 15 statements, which are answered on a Likert scale consisting of five points ranging from (1) completely disagree to (5) completely agree. It measures three dimensions of developing managers:

- **Achieving results:** consists of (5) statements (statements Y1 to Y5).
- **Building working relationships:** consists of (5) statements (statements Y6 to Y10).
- **Strategic competencies:** consists of (5) statements (statements Y11 to Y15).

D- Research Limitations:

The following are the limits for this research :

1. Objective limits:

These limits refer to the variables that will be studied, the dimensions that will be used, and how these variables and dimensions will be measured.

- The role of knowledge management in developing managers will be directly investigated without using any moderating variables .
- The role of knowledge management in developing managers will be directly investigated without using any mediating variables .

- The role of knowledge management in developing managers will only be examined as a dependent variable .
- Only The role of knowledge management as an independent variable on developing managers will be examined.

2. **Spatial Limits:** which means the field of application, whether specific sector. Hence, the field of application in the current research was limited to the Petroleum sector in Egypt.
3. **Time limits:** This study will collect research data from March to July 2024.
4. **Human Limits:** All employees at the three administrative levels (senior management, middle management, and executive management) in the Petroleum sector.

E- The statistical methods:

In analyzing the data and testing the validity of the hypotheses, the researchers used the Statistical Package for the Social Sciences (SPSS 26) program, which employed the following statistical methods:

First: Descriptive Methods

- Frequencies and percentages.

- Arithmetic Mean.

-Standard Deviation.

Second: Inferential Methods:

1. **Distribution of the sample** items included in the statistical analysis according to demographic variables (gender, age, career level, experience level, educational level) in terms of number or frequency and percentage, using the SPSS program.26
2. **Alpha coefficient:** The Cronbach's Alpha reliability coefficient (Alpha) was used for the survey to calculate the reliability and validity coefficients for the survey questions, and to determine the extent to which it can be relied upon in this research.

3. **Confirmatory factor analysis**: To analyze the phrases related to the three dimensions of Knowledge Management (Knowledge Acquisition, Knowledge Dissemination, and Responsiveness to Knowledge) and the phrases associated with the three dependent variables of developing managers (Achieving Results, Building Working Relationships, and Strategic Competencies), we need to identify any statements that have non-significant standardized regression coefficients, which should be excluded from the analysis. Additionally, it is important to clarify the criteria for assessing the quality of fit in the confirmatory factor analysis model for both Knowledge Management and developing managers. We will also calculate the reliability and validity coefficients using the AMOS and SPSS programs.

4. **Calculating descriptive statistics**: (arithmetic mean, standard deviation, and standard coefficient of variation) for each dimension of Knowledge Management and developing managers, in addition to using a one-sample t-test, using the SPSS program.
5. **Pearson correlation coefficient and its significance test:** To measure the degree of correlation between the variables, we will test the significance of that correlation and determine if a significant relationship exists between the variables, using the SPSS program.
6. **Multiple regression analysis method:** To determine the type of influence between the independent variables and the dependent variable, as well as to identify the dimensions that most effectively the dependent variable, this method was used to test the second hypothesis.
7. **Building a structural or structural model:** This study focuses on the overall measure of Knowledge Management and its effects on three dimensions of Knowledge Management. Additionally, it analyzes the overall measure of developing managers and its effect on three dimensions of developing managers. The study also explores

how the overall measure of Knowledge Management effects the overall measure of developing managers, utilizing the AMOS software for analysis.

9. The Applied Study:

9.1 Confirmatory Factor Analysis:

9.1.1 Confirmatory Factor Analysis for Knowledge Management:

Confirmatory Factor Analysis was made for all Knowledge Management and 28 phrases. The results of the initial Confirmatory Factor Analysis showed that there was no decrease in the quality indicators of model matching, so no phrase will be excluded. The following table shows the results of Confirmatory Factor Analysis paths for Knowledge Management dimensional scales phrases by illustrating Unstandardized Coefficients (U.C), Standardized Coefficients (S.C), Standard Error (S.E), T test (C.R), and P value.

Table (3): The results of Confirmatory Factor Analysis tracks for Knowledge Management dimensional scale phrases

Statement number	Statement	Dimensions	(S.C)	(U.C)	(S.E.)	(C.R.)	Sig.
X1	Our organization values employees' attitudes and opinions.	Knowledge Acquisition	.746	1.000	–	–	–
X2	Our organization has well-developed financial reporting systems.		.764	.977	.066	14.756	***
X3	We are market organize by actively obtaining customer information.		.757	1.350	.092	14.611	***
X4	Our organization is sensitive to information about changes in the marketplace.		.817	1.178	.074	15.918	***
X5	Our organization works in partnership with international customers.		.708	.922	.068	13.543	***
X6	Our organization gets information from market surveys.		.807	1.088	.069	15.695	***
X7	We acquire knowledge through teamwork.		.822	1.279	.080	16.039	***

Statement number	Statement	Dimensions	(S.C)	(U.C)	(S.E.)	(C.R.)	Sig.
X8	We can locate the source of information that we need.		.810	1.078	.068	15.776	***
X9	We employ people deemed to have the expertise we need.		.771	.825	.055	14.915	***
X10	Staff has access to all required information on-line.		.543	.702	.069	10.163	***
X11	Knowledge is disseminated on –the –job.	Knowledge Dissemination	.761	1.000	–	–	–
X12	Market information is disseminated.		.836	1.193	.071	16.893	***
X13	We use specific techniques to disseminate knowledge		.853	1.134	.066	17.305	***
X14	Organization uses technology to disseminate knowledge		.688	.901	.067	13.408	***
X15	Our organization prefers written communication		.780	1.034	.067	15.534	***
X16	Knowledgeable staff share their ideas with other staff.		.541	.604	.059	10.268	***
X17	We conduct regular meetings to exchange experiences.		.840	1.119	.066	16.985	***
X18	We use newsletters to disseminate information.		.809	.966	.059	16.231	***
X19	Some of our staff discuss issues with professional associations.		.722	.906	.064	14.172	***
X20	We have adequate knowledge to respond to customers questions.	Responsiveness to Knowledge	.474	1.000	–	–	–
X21	We have adequate knowledge to respond to respond to questions on competitors.		.803	2.561	.283	9.036	***
X22	We respond to questions on technology.		.756	1.804	.204	8.822	***
X23	We are flexible by readily changing products.		.684	1.663	.197	8.441	***
X24	We are flexible by changing strategies.		.809	2.096	.231	9.063	***
X25	Staff have access to information required to perform their job		.863	2.245	.242	9.276	***
X26	Our organization is flexible and opportunistic.		.644	1.486	.181	8.204	***

Statement number	Statement	Dimensions	(S.C)	(U.C)	(S.E.)	(C.R.)	Sig.
X27	**We update our knowledge databases.**		**.828**	**2.420**	**.265**	**9.142**	***
X28	We have a well-developed human resource function.		.684	2.020	.239	8.442	***

** Indicates that the calculated value is statistically significant at a significant level of 1%

Source: AMOS program Results

Figure (4) shows the confirmatory factor analysis model for the phrases of the dimensions of Knowledge Management:

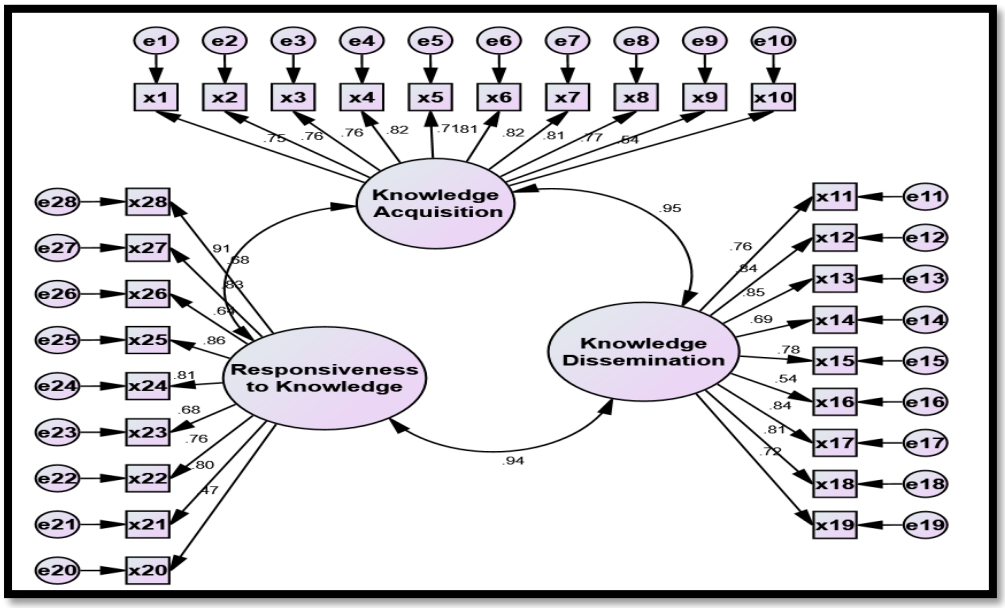

Figure No. (4) Confirmatory factor analysis model for phrases measuring the dimensions of Knowledge Management

Source: AMOS program Results

The Analysis indicates that all the values of the standard regression coefficients were higher than 0.3 while keeping the rest of the significant expressions true. For

further clarification, Table (4) Indicators for judging the quality of fit of the confirmatory factor analysis model for the Knowledge Management scale:

Table no. (4) Indicators for judging the quality of fit of the confirmatory factor analysis model for the Knowledge Management scale.

Index	Normative value	Indicator value
Normed Chi-square (CMIN/DF)	Less than or equal to 3	2.341
Root Mean Square Error of Approximation (RMSEA)	Less than 0.08	0.012
Goodness of Fit Index (GFI)	The closer its value is to the correct one, the better the model matches the data of the research sample	0.691
Comparative Fit Index (CFI)		0.818
Normed of Fit Index (NFI)		0.786
Tucker-Lewis Index (TLI)		0.802

Source: Results

The previous table illustrates that all indicators of judging the quality of Confirmatory Factor Analysis model for the Knowledge Management scale are statistically acceptable.

As shown in Table (5) Reliability and Validity for Knowledge Management dimensional scales:

Table no. (5) Reliability and validity coefficients for measures of Knowledge Management dimensions

Dimensions of Knowledge Management	Number of statements	Transactions	
		Cronbach`s alpha coefficient	Self-honesty coefficient
Knowledge Acquisition	10	0.901	0.949
Knowledge Dissemination	9	0.861	0.928
Responsiveness to Knowledge	9	0.844	0.919
Total the Knowledge Management	28	0.775	0.880

Source: The results of the statistical analysis of the SPSS program.

The previous table shows that the values of the Cronbach`s alpha reliability coefficient range between 0.844 and 0.901 (that is, each of them is more than 0.7), which confirms the internal consistency of the statements of the Knowledge Management dimensions scale. The validity coefficient values range between 0.919 and 0.949, which confirms that the statements measuring the dimensions of Knowledge Management actually measure the dimension they were designed to measure.

9.1.2 Results of confirmatory factor analysis of developing managers:

Confirmatory factor analysis was conducted for all 15 statements or items of the developing managers scale. The results of the initial confirmatory factor analysis showed that some indicators of the model's fit quality were low, due to the presence of statements with a low degree of saturation on their respective dimension, which is statement number (Y7) for the dimension of building work relationships and statement number (Y13) for the dimension of strategic competencies. Therefore, they were excluded to improve the model's fit quality.

The following table shows the results of Confirmatory Factor Analysis tracks for developing managers scales phrases by illustrating Unstandardized Coefficients (U.C), Standardized Coefficients (S.C), Standard Error (S.E), T test (C.R), and P value.

Table No. (6) Results of confirmatory factor analysis paths for phrases measuring dimensions of developing managers.

Statement number	Statement	Dimensions	(S.C)	(U.C)	(S.E.)	(C.R.)	Sig.
Y1	Managers are keen to constantly review work results.	**Achieving results**	.494	1.000	–	–	–
Y2	Managers lead work teams efficiently and effectively.		.776	1.073	.122	8.776	***
Y3	Managers have analytical abilities that enable them to solve problems.		.789	1.138	.129	8.832	***
Y4	Managers have intellectual flexibility in making decisions.		.806	1.138	.128	8.901	***

Statement number	Statement	Dimensions	(S.C)	(U.C)	(S.E.)	(C.R.)	Sig.
Y5	Managers are able to manage resources efficiently and effectively.		.413	.625	.102	6.099	***
Y6	Managers have the ability to influence subordinates.	Building working relationships	.365	1.000	–	–	–
Y7	Managers are keen to build distinguished relationships with subordinates.		-.054	-.176	.187	-.940	.347
Y8	Managers implement mechanisms that promote effective communication between them and subordinates.		.572	2.118	.354	5.980	***
Y9	Managers organize the roles assigned to subordinates by taking into account the aspects.		.712	2.325	.364	6.393	***
Y10	Managers enjoy effective negotiation.		.818	3.051	.463	6.596	***
Y11	Managers possess the necessary competencies for strategic planning.	Strategic competencies	.099	1.000	–	–	–
Y12	Managers practice strategic thinking in decision-making processes.		.719	6.637	3.785	1.753	.080
Y13	Managers plan to build cooperation agreements with other parties.		.055	.597	.699	.854	.393
Y14	Managers work to develop the talents of subordinates.		.864	8.500	4.834	1.758	.079
Y15	Managers have forward-looking ways and work to build inspiring and attractive future expectations for their desired plans.		.837	8.586	4.884	1.758	.079

Figure (5) also shows the confirmatory factor analysis model for the phrases of the dimensions of developing managers:

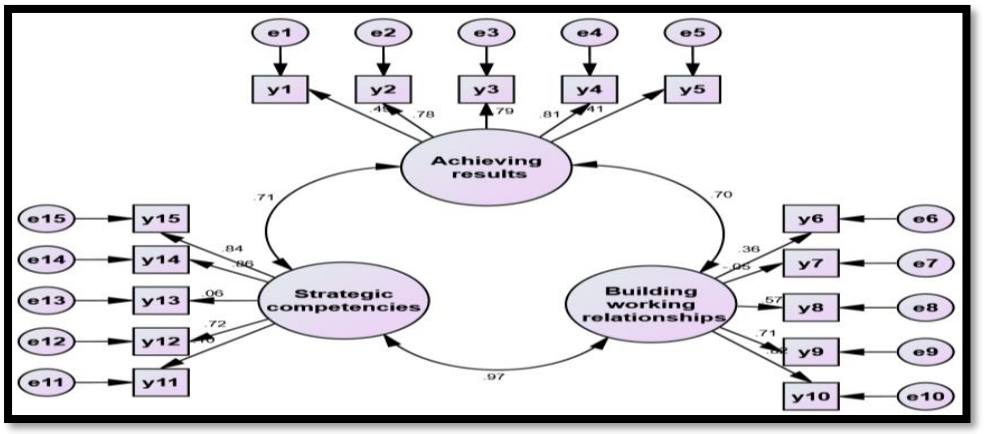

Figure No. (5) Confirmatory factor analysis model for phrases measuring the dimensions of developing managers

Source: AMOS Program Results

Figure (5) indicates that all the values of the standard regression coefficients were higher than 0.3 With the exception of phrase number (Y7) related to the dimension of building work relationships, and phrases number (Y13) related to the dimension of strategic competencies, so they were excluded to improve the quality of model fit. For further clarification, Table (7) Indicators for judging the quality of fit of the confirmatory factor analysis model for the developing managers scale:

Table no. (7) Indicators for judging the quality of fit of the confirmatory factor analysis model for the developing managers scale.

Index	Normative value	Indicator value
Normed Chi-square (CMIN/DF)	Less than or equal to 3	2.094
Root Mean Square Error of Approximation (RMSEA)	Less than 0.08	0.029
Goodness of Fit Index (GFI)	The closer its value is to the correct one, the better the model matches the data of the research sample	0.831
Comparative Fit Index (CFI)		0.854
Normed of Fit Index (NFI)		0.835
Tucker-Lewis Index (TLI)		0.813

Source: AMOS program Results

The previous table illustrates that all indicators of judging the quality of Confirmatory Factor Analysis model for the developing managers scale are statistically acceptable.

As shown in Table (8) Reliability and Validity for developing managers dimensional scales:

Table no. (8) Reliability and validity coefficients for measures of developing managers dimensions

Dimensions of Knowledge Management	Number of statements		Transactions		
	Before deletion	After deletion	Cronbach`s alpha coefficient before deletion	Cronbach`s alpha coefficient after deletion	Self-honesty coefficient
Achieving results	5	5	0.806	0.806	0.898
Building working relationships	5	4	0.736	0.788	0.888
Strategic competencies	5	4	0.812	0.830	0.911
Total The developing managers	15	13	0.840	0.855	0.925

Source: The results of the statistical analysis of the SPSS program.

Table (8) shows that the values of the Cronbach`s alpha reliability coefficient range between 0.788 and 0.830 (that is, each of them is more than 0.7), which confirms the internal consistency of the statements of the developing managers dimensions scale. The validity coefficient values range between 0.888 and 0.911, which confirms that the phrases measuring the dimensions of developing managers measure that dimension that they were designed to measure.

9.2 Measuring the attitudes of the respondents towards the extent to which the dimensions of the study's variables are available in the petroleum production companies within the Greater Cairo City subject of the study:

The following table (9) notes and shows a summary of the results of descriptive statistics for the dimensions of the study variables:

Table No. (9): Summary of descriptive statistics for the study variables

Dimensions	Arithmetic mean	Standard deviation	Coefficient of variation	Ranking
Knowledge Management	3.68	.621	16.88	
Knowledge Acquisition	3.46	.773	22.34	3
Knowledge Dissemination	3.71	.710	19.14	2
Responsiveness to Knowledge	3.86	.687	17.80	1
The dependent variable (developing managers	3.27	.802	24.53	
Achieving results	3.44	.916	26.63	2
Building working relationships	3.34	.808	24.19	1
Strategic competencies	3.01	1.013	33.65	3

Source: Results of statistical analysis of SPSS.

The table below presents several facts as outlined.:

- **Regarding the independent variable, Knowledge Management:**

  The overall level of the independent variable, which is the Knowledge Management of petroleum production companies in Greater Cairo, was found to have a positive tendency. Respondents displayed a moderate degree of agreement, as evidenced by an arithmetic mean of 3.86, a standard deviation of 0.621, and a coefficient of variation of 16.88. These figures indicate that the majority of respondents expressed agreement on this topic.

- **Regarding the dimensions of the independent variable (Knowledge Management):**

  - It is noted from the previous table (9) that the **Knowledge Acquisition** dimension is characterized by a degree that tends to agree, with an arithmetic mean of (3.46), a standard deviation of (0.773) and a coefficient of variation of (22.34). The **Knowledge Acquisition** dimension is ranked third in terms of relative importance.

- It is noted that the **Knowledge Dissemination** dimension is characterized by a degree that tends to agree, with an arithmetic mean of (3.71), a standard deviation of (0.710) and a coefficient of variation of (19.14). The **Knowledge Dissemination** dimension is ranked second in terms of relative importance.
- It is noted also that the **Responsiveness to Knowledge** dimension is characterized by a degree that tends to agree, with an arithmetic mean of (3.86), a standard deviation of (0.687) and a coefficient of variation of (17.80). The **Responsiveness to Knowledge** dimension is ranked first in terms of relative importance.

- **Regarding the dependent variable (Developing Managers):**

The overall level of the dependent variable, the developing managers of Petroleum production companies within the Greater Cairo City in Greater Cairo, under study, was characterized by a positive tendency, with a moderate degree of agreement, as the arithmetic mean value reached (3.27), a standard deviation of (0.802), and a coefficient of variation of (24.53). Which indicates that most of the respondents agreed on that.

- **Regarding the dimensions of the dependent variable, developing managers:**

- It is noted that the **Achieving results** dimension is characterized by a degree that tends to agree, with an arithmetic mean of (3.44), a standard deviation of (0.916) and a coefficient of variation of (26.63). The **Achieving results** dimension is ranked second in terms of relative importance.
- It is noted also from the previous table that the **building working relationships** dimension is characterized by a degree that tends to agree, with an arithmetic mean of (3.34), a standard deviation of (0.808) and a coefficient of variation of (24.19). The **building working relationships** dimension is ranked first in terms of relative importance.
- Finally, it is noted that the **Strategic competencies** dimension is characterized by a degree that tends to agree, with an arithmetic mean of (3.01), a standard deviation

of (1.013) and a coefficient of variation of (33.65). The **Strategic competencies** dimension is ranked third in terms of relative importance. Applying to Petroleum production companies within Greater Cairo City.

9.3 Correlation Matrix:

The following Table shows the corrleation Matrix between the study variables.

Table (10): Correlation Matrix

	Knowledge Acquisition	Knowledge Dissemination	Responsiveness to Knowledge	Knowledge Management	Achieving results	Building working relationships	Strategic competencies	Developing Managers
Knowledge Acquisition	1							
Knowledge Dissemination	.652**	1						
Responsiveness to Knowledge	.570**	.585**	1					
Knowledge Management	.874**	.868**	.829**	1				
Achieving results	.592**	.536**	.585**	.666**	1			
Building working relationships	.548**	.426**	.513**	.579**	.688**	1		
Strategic competencies	.631**	.467**	.461**	.610**	.593**	.709**	1	
Developing Managers	.675**	.543**	.588**	.705**	.861**	.896**	.884**	1

****Indicates that the calculated value is statistically significant at the 1% significance level.**

Source: Results of statistical analysis of SPSS

The previous table reflects the followings:

- The correlation between the two variables is existed, as it was shown that there is a positive, statistically significant correlation between Knowledge Management, and developing managers, and all the axes of the independent variable, Knowledge Management, individually, each axis separately (Knowledge Acquisition,

Knowledge Dissemination, Responsiveness to Knowledge), as well as the dimensions of the dependent variable, developing managers (Achieving results, Building working relationships, Strategic competencies).

- The strong correlation coefficients observed between Knowledge Management—both individually and collectively—and the dependent variable of developing managers suggest a positive and statistically significant relationship. Specifically, there is a significant correlation between the axis of Knowledge Acquisition and the development of managers, with a significance level of 0.01. The correlation coefficient between is 0.675**.
- There is a positive, statistically significant relationship between developing managers, and Knowledge Dissemination axis at a significance level of (0.05), where the correlation coefficient reached. (.543**).
- There is a positive, statistically significant relationship between developing managers and Responsiveness to Knowledge axis at a significance level (0.05), where the correlation coefficient reached (.588**).
- There is a positive, statistically significant relationship between developing managers, Knowledge Management, at a significance level of (0.05), where the correlation coefficient reached (.705**).
- There is a positive, statistically significant relationship between developing managers, and achieving results axis at a significance level of (0.05), where the correlation coefficient reached (.861**).
- There is a positive, statistically significant relationship between developing managers, and building working relationships axis at a significance level of (0.05), where the correlation coefficient reached (.896**).
- There is a positive, statistically significant relationship between developing managers, and the axis of Strategic competencies at the level of significance (0.05), where the correlation coefficient reached (.884**).

- There is a correlation between the variables of the study, as it was shown that there is a positive, statistically significant correlation between the independent variable, (Knowledge Management), and all its dimensions (Knowledge Acquisition, Knowledge Dissemination, Responsiveness to Knowledge), and between each other, and there is a positive, significant, moderate and above average bilateral correlation among all dimensions of Knowledge Management.
- There is a correlation between the variables of the study, as it was shown that there is a positive, statistically significant correlation between the dependent variable, developing managers, and all of its dimensions (Achieving results, Building working relationships, Strategic competencies), and between each other. It is clear that there is a positive, significant, moderate and above-average bilateral correlation among all of them.
- High values of correlation coefficients between the dimensions of Developing managers individually and as a whole, indicating the presence of a high positive correlation with statistical significance between Developing managers and all its effects at the level of significance (0.01), where the correlation coefficient reached (.652**) between the Developing managers axis and Knowledge Dissemination axis, The correlation coefficient reached (.570**) between the Developing managers axis and Responsiveness to Knowledge axis, where the correlation coefficient reached (.874**) between the Developing managers axis and Knowledge Management axis, where the correlation coefficient reached (.592**) between the Developing managers axis and Achieving results axis, where the positive correlation coefficient reached (.548**) between the Developing managers axis and Building working relationships axis, where the positive correlation coefficient reached (.631**) between the Developing managers axis and Strategic competencies axis.

- The correlation coefficients among the various detailed dimensions of the study variables indicate a positive relationship between the independent variable, Knowledge Management, and each of its axes individually. However, the correlation with the dependent variable, developing managers, did not exceed a limit of (.543**, .896**), suggesting there is no strong correlation between them. This situation necessitated the integration of some variables, enhancing the assurance that the variables are independent and do not interfere with one another.

We can find obviously a statistically significant correlation between the dimensions and variables of the study (Knowledge Management, developing managers).

9.4 Multiple regression analysis:

9.4.1 The Main Hypothesis:

"There is statistically significant effect of Knowledge Management with its dimension (Knowledge Acquisition, Knowledge Dissemination, Responsiveness to Knowledge) the developing managers with its dimension (Achieving results, Building working relationships, Strategic competencies) in Petroleum production companies within the Greater Cairo City. From this hypothesis the following sub-hypotheses comes:

- There is statistically significant effect of Knowledge Management with its dimension (Knowledge Acquisition, Knowledge Dissemination, Responsiveness to Knowledge) on the dimension of **Achieving results** as one of the dimensions of developing managers.
- There is statistically significant effect of Knowledge Management with its dimension (Knowledge Acquisition, Knowledge Dissemination, Responsiveness to

Knowledge) on the dimension of **Building working relationships** as one of the dimensions of developing managers.

- There is statistically significant effect of Knowledge Management with its dimension (Knowledge Acquisition, Knowledge Dissemination, Responsiveness to Knowledge) on the dimension of **Strategic competencies** as one of the dimensions of developing managers.

- **The main hypothesis test:**

In light of correlation between Knowledge Management on developing managers, the impact of Knowledge Management on developing managers was measured using (Simple Regression Analysis) and the results came as shown in the following table (11):

Table (11) Simple linear regression model between Knowledge Management on developing managers

Independent Variable	R	R Square	B	T-Test		F-Test	
				t	Sig.	F	Sig.
constant	.705a	.497	-.084-	-.454-	.650	340.277	.000***
Knowledge Management			.911	18.447	.000		

Source: The results of the statistical analysis of the SPSS program.

***** Statistically significant at the significance level (0.001) **Statistically significant at the significance level (0.01)**

Through Table (11), the following indicators are identified:

1. Coefficient of determination (R^2):

According to the coefficient of determination (R^2), the independent variable explains (49.7%) of the changes in dependent variable (developing managers), and the rest of the percentage (50.3%) may be due to random error in the equation, or perhaps not including other independent variables that should have been included in the model. Which means (as the researchers believe) that approximately 50% of developing

managers behaviors in Petroleum production companies within the Greater Cairo City in Greater Cairo are the result of Knowledge Management.

2. Testing the significance of the independent variable:

The T-test indicates that the independent variable is significant in the Simple linear regression model at a significance level less than (0.05).

3. Testing the significance of the goodness of fit of the regression model:

To test the significance of the model variables as a whole, the F-tset test was conducted, and the "F" value was (340.277), which is statistically significant at a significance level less than (0.05), which indicates that the Knowledge Management has a statistically significant positive effect on developing managers.

Based on the above, the regression equation can be formulated as follows:

developing managers= (-0.084) + 0.911 Knowledge Management

Based on the previous regression model, it is possible to predict the number of developing managers by measuring Knowledge Management using the established regression equation. Specifically, an increase in Knowledge Management by one unit leads to an increase of 0.911 in the number of developing managers within petroleum production companies in Greater Cairo City.

This result reflects the significant role of Knowledge Management in enhancing the number of developing managers in these companies, highlighting its importance in fostering managerial development.

So, the main hypothesis "There is a positive significant effect of Knowledge Management on developing managers" is accepted. Additionally, the researchers also tested the effect of Knowledge Management separate dimensions on developing managers dimensions. The researchers used Multiple Regression Analysis, which

shows the relationship of the dimensions of the independent variable and the degree of their influence on the dependent variable, and the results are shown in the following table:

Table (12) Multiple linear regression model to determine the dimensions of Knowledge Management that most influence the dependent variable (developing managers) as a whole.

Independent Variable	R	R Square	B	T-Test		F-Test	
				t	Sig.	F	Sig.
constant	.705a	.497	-.084-	-.454-	.650	340.277	.000***
Knowledge Management			.911	18.447	.000		

***** Statistically significant at the significance level (0.001) ** Statistically significant at the significance level (0.01) * Statistically significant at the significance level (0.05)**

Source: The results of the statistical analysis of the SPSS program.

Through Table (12), the following indicators are identified:

1. **Coefficient of determination (R^2):**

According to the coefficient of determination R^2, the independent variables explain (52%) of the total dependent variable (the dependent variable developing managers as a whole), and the rest of the percentage (48%) may be due to random error in the equation or perhaps not including other independent variables that should have been included in the model.

2. **Testing the significance of each independent variable separately:**

The t-test indicates that the significant independent variables in the multiple linear regression are two dimensions of Knowledge Management: (Knowledge Acquisition and Responsiveness to Knowledge), both at a significance level of less than 0.001. However, Knowledge Dissemination is not significant.

3. **Testing the significance of the goodness of fit of the regression model:**

To test the significance of the model's variables overall, an F-test was conducted. The resulting F value was 123.802, which is statistically significant at a level below 0.001. This indicates that the variables associated with the dimensions of Knowledge Management collectively have an impact on the dependent variable.

Based on the above, the regression equation can be formulated as follows:

Dependent variable (developing managers) as a whole = 0.020 + 0.484 Knowledge Acquisition + 0.324 Responsiveness to Knowledge

Based on the previous regression model, it is possible to predict the dependent variable (developing managers) as a whole by assessing the dimensions of Knowledge Management and applying the previous regression equation. This means that:

- Every increase in the Knowledge Acquisition by one-unit lead to an increase in **the dependent variable (developing managers) as a whole** (0.484).
- Every increase in the Responsiveness to Knowledge by one-unit lead to an increase in **the dependent variable (developing managers) as a whole** (0.324).

  The estimated parameter values illustrate that the strongest dimensions of Knowledge Management influencing the dependent variable were (Knowledge Acquisition - Responsiveness to Knowledge).

- **The first sub-hypothesis: The effect of the dimensions of Knowledge Management in Achieving results:**

The researchers used Multiple Regression Analysis, which shows the relationship between the dimensions of the independent variable and the degree of their effect on the dependent variable. The results are shown in the following table:

Table (13) results of multiple regression analysis models for the effects of Knowledge Management in Achieving results

Dependent Variable	Independent Variables	R	R Square	B	T-Test		F-Test	
					t	Sig.	F	Sig.
Achieving results	Constant	.672[a]	.451	-.187-	-.824-	.411	94.066	.000[b]
	Knowledge Acquisition			.375	5.721	.000***		
	Knowledge Dissemination			.181	2.506	.013**		
	Responsiveness to Knowledge			.429	6.212	.000***		

***** Statistically significant at the significance level (0.001) ** Statistically significant at the significance level (0.01) * Statistically significant at the significance level (0.05)**

Source: The results of the statistical analysis of the SPSS program.

From Table (13), the following indicators are identified:

1. Coefficient of determination (R^2):

According to the coefficient of determination R^2, the independent variables explain (45.1%) of the total dependent variable (Achieving results), and the rest of the percentage (54.9%) may be due to random error in the equation or perhaps not including other independent variables that should have been included in the model.

2. Testing the significance of each independent variable separately:

The T-test indicates that the significant independent variables in the multiple linear regression are all dimensions of Knowledge Management (Knowledge Acquisition, Knowledge Dissemination, Responsiveness to Knowledge) at a significance level of less than (0.001).

3. Testing the significance of the goodness of fit of the regression model:

To test the significance of the variables of the model as a whole, the F-test was conducted, where the "F" value was (94.066), which is statistically significant at a

significance level less than (0.001), which indicates that the variables related to the dimensions of Knowledge Management have an effect on Achieving results.

Based on the above, the regression equation can be formulated as follows:

Achieving results = (-0.187) + 0.375 Knowledge Acquisition + 0.181 Knowledge Dissemination + 0.429 Responsiveness to Knowledge

Based on the previous equation, it is possible to predict the degrees of Achieving results, by measuring the dimensions of Knowledge Management, and by applying the previous regression equation, which means that:

- Every increase in the degree of Knowledge Acquisition by one-unit lead to an increase in **Achieving results** (0.375).
- Every increase in Knowledge Dissemination by one-unit lead to an increase in **Achieving results** (0.181).
- Every increase in Responsiveness to Knowledge by one-unit lead to an increase in **Achieving results** (0.429).

The estimated coefficient indicates also that the strongest dimensions of Knowledge Management influencing Achieving results were in the following order: (Responsiveness to Knowledge - Knowledge Acquisition - Knowledge Dissemination).

So, the first sub-hypothesis has been totally proven, meaning that there is a significant effect of the dimensions of Knowledge Management on Achieving results as one of the dimensions of developing managers.

- **The second sub-hypothesis: The effect of the dimensions of Knowledge Management in Building working relationships:**

The researchers used Multiple Regression Analysis, which shows the relationship of the dimensions of the independent variable and their effect on the dependent variable. the results are shown in the following table:

Table (14) results of multiple regression analysis models for the effects of Knowledge Management in Building working relationships

Dependent Variable	Independent Variables	R	R Square	B	T-Test		F-Test	
					t	Sig.	F	Sig.
Building working relationships	Constant	.600a	.360	.618	2.855	.005	64.305	.000b
	Knowledge Acquisition			.390	6.246	.000***		
	Knowledge Dissemination			.012	.180	.857		
	Responsiveness to Knowledge			.345	5.240	.000***		

*** Statistically significant at the significance level (0.001) ** Statistically significant at the significance level (0.01) * Statistically significant at the significance level (0.05)

Source: The results of the statistical analysis of the SPSS program.

From Table (14), the following indicators are identified:

1. **Coefficient of determination (R^2):**

According to the coefficient of determination R^2, the independent variables explain (36%) of the total dependent variable (Building working relationships), and the rest of the percentage (64%) may be due to random error in the equation or perhaps not including other independent variables that should have been included in the model.

2. **Testing the significance of each independent variable separately:**

The T-test indicates that the significant independent variables in the multiple linear regression are two dimensions of Knowledge Management (Knowledge Acquisition, Responsiveness to Knowledge) at a significance level of less than (0.001), and Knowledge Dissemination is not significant.

3. **Testing the significance of the goodness of fit of the regression model:**

To test the significance of model as a whole, the F-test was conducted, where the "F" value was (64.305), which is statistically significant at a significance level less than

(0.001), which indicates that the variables related to the dimensions of Knowledge Management have an effect on Building working relationships.

Based on the above, the regression equation can be formulated as follows:

Building working relationships = 0.618 + 0.390 Knowledge Acquisition + 0.345 Responsiveness to Knowledge

It is possible to predict the Building working relationships, by measuring the dimensions of Knowledge Management, and by applying the previous regression equation, which means that:

- Every increase in the Knowledge Acquisition by one unit leads to an increase in **Building working relationships** (0.390).
- Every increase in Responsiveness to Knowledge by one unit leads to an increase in **Building working relationships** (0.345).

The estimated coefficient reflect that the strongest dimensions of Knowledge Management influencing Building working relationships were in the following order: (Knowledge Acquisition - Responsiveness to Knowledge).

So, the second sub-hypothesis has been partially proven, meaning that there is a significant effect of the dimensions of Knowledge Management on Building working relationships as one of the dimensions of developing managers.

- **The third sub-hypothesis: The effect of the dimensions of Knowledge Management in Strategic competencies:**

The researchers used Multiple Regression Analysis, which shows the relationship between the dimensions of the independent variable and their effect on the dependent variable, and the results are shown in the following table:

Table (15) results of multiple regression analysis models for the effects of Knowledge Management in Strategic competencies

Dependent Variable	Independent Variables	R	R Square	B	T-Test		F-Test	
					t	Sig.	F	Sig.
Strategic competencies	Constant	.644a	.415	-.372-	-1.434-	.153	80.947	.000[b]
	Knowledge Acquisition			.686	9.147	.000***		
	Knowledge Dissemination			.068	.826	.409		
	Responsiveness to Knowledge			.197	2.502	.013**		

***** Statistically significant at the significance level (0.001) ** Statistically significant at the significance level (0.01) * Statistically significant at the significance level (0.05)**

Source: The results of the statistical analysis of the SPSS program.

From Table (15), the following indicators are identified:

1. Coefficient of determination (R^2):

According to the coefficient of determination R^2, the independent variables explain (41.5%) of the total dependent variable (Strategic competencies), and the rest of the percentage (58.5%) may be due to random error in the equation or perhaps not including other independent variables that should have been included in the model.

2. Testing the significance of each independent variable separately:

The T-test indicates that the significant independent variables in the multiple linear regression are two dimensions of Knowledge Management (Knowledge Acquisition, Responsiveness to Knowledge) at a significance level of less than (0.001), Knowledge Dissemination is not significant.

3. Testing the significance of the goodness of fit of the regression model:

To test the significance of the model as a whole, the F-test was conducted, where the "F" value was (80.947), which is statistically significant at a significance level less

than (0.001), which indicates that the variables related to the dimensions of Knowledge Management have an impact on Strategic competencies.

Based on the above, the regression equation can be formulated as follows:

Strategic competencies = (-0.372) + 0.686 Knowledge Acquisition + 0.197 Responsiveness to Knowledge

The previous equation illustrates that it is possible to predict the degrees of Strategic competencies, by measuring the dimensions of Knowledge Management, and by applying the previous regression equation, which means that:

- Every increase in Knowledge Acquisition by one unit leads to an increase in **Strategic competencies** (0.686).
- Every increase in Responsiveness to Knowledge by one unit leads to an increase in **Strategic competencies** (0.197).

The estimated coefficients illustrate that the strongest dimensions of Knowledge Management influencing Strategic competencies were in the following order: (Knowledge Acquisition - Responsiveness to Knowledge).

So, the third sub-hypothesis has been partially proven, meaning that there is a significant effect of the dimensions of Knowledge Management on Strategic competencies as one of the dimensions of developing managers.

- **developing the structural model of research variables:**

The path analysis is one of the basic forms of structural modeling besides to the confirmatory analysis. However, the difference between them is that in the path analysis, the overall-dimensional variables previously treated in the confirmatory factor analysis are treated as latent variables as observational variables (Birick & Kelloway, 2019). Path analysis is flexible, as it can include multiple independent variables and multiple dependent variables, and this is not available in the regression analysis model, which allows only one dependent variable (Awad, 2019: 172). The following figure shows the structural or structural model of the paths of the research variables:

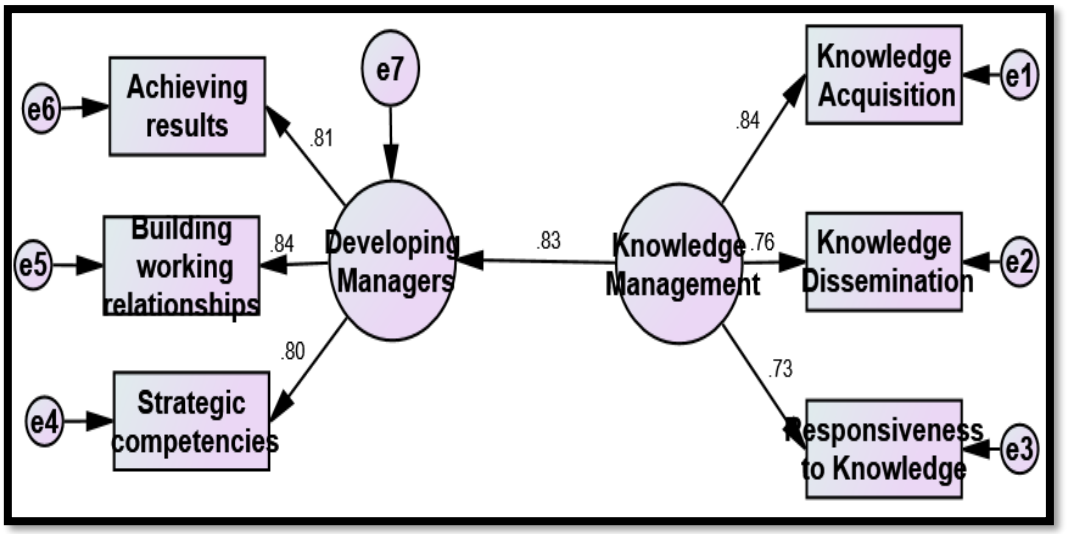

Figure (6) The structural model of the paths of variables

Source: AMOS Program Results

The following table shows the results of the Path analysis test for variables:

Table (16) The Path Analysis

The Path		(S.C)	(U.C)	(S.E.)	(C.R.)	Sig.
Independent Variables	Dependent Variable					
The overall measure of Knowledge Management	Knowledge Acquisition	.839	1.000	____	____	____
	Knowledge Dissemination	.758	.830	.056	14.719	***
	Responsiveness to Knowledge	.727	.770	.055	14.028	***
	The overall measure of developing managers	.833	1.044	.080	13.047	***
The overall measure of developing managers	Achieving results	.806	.908	.057	15.836	***
	Building working relationships	.841	.836	.050	16.553	***
	Strategic competencies	.803	1.000	____	____	____

***** Indicates that the calculated value is significant at the 1% level of significance.**

Source: Results of AMOS statistical analysis.

Table (16) indicates that all standard regression coefficients are significant at the 1% level of significance, so there is a significant positive direct effect of the independent variable on the dependent variable, as the value of the path coefficient reached (0.83).

The following table shows the indicators for judging the goodness of fit of the structural model for the paths of the research variables:

Table No. (17) Indicators for judging the quality of fit of the structural model to the paths of the research variables

Index	Normative value	Indicator value
Normed Chi-square (CMIN/DF)	Less than or equal to 3	2.075
Root Mean Square Error of Approximation (RMSEA)	Less than 0.08	0.043
Goodness of Fit Index (GFI)	The closer its value is to the correct one, this indicates a better match of the model with the data of the research sample	0.941
Comparative Fit Index (CFI)		0.949
Normed of Fit Index (NFI)		0.943
Tucker-Lewis Index (TLI)		0.905

source: AMOS Results

The previous table indicates that all indicators for judging the goodness of fit of the structural model for the variable's paths are statistically acceptable.

10. Results and Recommendations

10/1 Results

10/1/1 General Results

1. This study makes a meaningful contribution to the existing research available in libraries by emphasizing knowledge management and the development of managers as important modern approaches in management science. These approaches enable organizations and companies to adapt to updates and stay informed about environmental developments and changes. This, in turn, supports strategic performance and enhances customer acceptance.
2. The process of Knowledge Management in the companies being studied is not the effort of a single individual; rather, it results from the collective efforts and cooperation of an entire team. This process requires each person to take responsibility for their specific role in an organized and systematic manner based on scientific principles. Such an approach ensures that there is no randomness or confusion regarding the responsibilities of each team member.
3. There is an urgent need to financially support the knowledge management application and provide all necessary resources. These resources should be organized and aligned with the goals of the knowledge management process. Additionally, the training content must be relevant and appropriate, alongside the required financial support.
4. The Manager Development data greatly minimizes debates surrounding performance evaluations by establishing standardized indicators for required actions on a sequential scale that is hard to dispute. Additionally, the hiring and selection decisions in the companies studied rely more on data related to the actual success potential of the employees than on traditional methods used in the past.

5. The skills of managers in the companies being studied play a crucial role in making promotion and career development decisions. These decisions are based on reliable data regarding each employee's likelihood of success in their roles, helping determine who is best suited for a given position.

10/1/2 hypotheses Testing Results

The following table shows the summary of the hypotheses test:

Table no. (18) summary of the hypotheses test

Hypotheses	Testing the validity of hypotheses	The result
The main Hypothesis	There is a statistically significant effect of Knowledge management with its dimension (Knowledge acquisition, Knowledge Dissemination, Responsiveness to knowledge) on achieving the Developing managers with its dimension (Achieving results, Building working relationships, Strategic competencies) in Petroleum Companies in Cairo.	Accepted
The first sub-Hypothesis	There is a statistically significant effect of Knowledge management with its dimension (Knowledge acquisition, Knowledge Dissemination, Responsiveness to knowledge) on the dimension of Achieving results which is one of the Developing managers dimensions in Petroleum Companies in Cairo.	Accepted
The second sub-hypothesis	There is a statistically significant effect of Knowledge management with its dimension (Knowledge acquisition, Knowledge Dissemination, Responsiveness to knowledge) on the dimension of Building working relationships which is one of the Developing managers dimensions in Petroleum Companies in Cairo.	Accepted
The third sub-hypothesis	There is a statistically significant effect of Knowledge management with its dimension (Knowledge acquisition, Knowledge Dissemination, Responsiveness to knowledge) on the dimension of Strategic competencies which is one of the Developing managers dimensions in Petroleum Companies in Cairo.	Accepted

Source: By authors

10/2 Recommendations

Based on the theoretical and practical aspects of the study that examined "The Role of Knowledge Management in the Development of Managers: An Applied Study," and considering the results obtained, the following recommendations can be made:

Table (19) Proposed recommendations for implementation

Proposed recommendations for implementation	Implementation responsibility	Required resources
Enhance the emphasis on knowledge management by both managers and employees to ensure greater effectiveness and achieve the desired outcomes.	Human Resources Management	Human resources/ knowledge resources
Explaining the importance of knowledge management and its benefits for managers in the companies under study.	Top management	Human resources/ knowledge resources
Enhancing the IT infrastructure to optimize knowledge management applications.	Research and Development Department and Information Systems Department	Technological resources, material resources
Offering training and education for individuals involved in the knowledge management process ensures desired outcomes and supports the development of managers.	Human Resources Management	Highly qualified trained human resources
To maintain high levels of managers' skills, it is essential to enhance their mechanisms, particularly their social skills and relationship-building abilities by strengthening connections among managers and encouraging effective communication and social interaction between managers and their subordinates at work.	All departments	Human resources/ knowledge resources
Developing training courses to inspire a desire for change and improve leadership skills, as well as creating programs for self-development to help employees understand their strengths and weaknesses.	Human Resources Management	Human resources/ knowledge resources
Holding regular weekly or monthly meetings for employees who have completed training courses encourages the sharing of insights and knowledge while promoting open dialogue with leadership.	Human Resources Management	Human resources/ knowledge resources

Source: By authors

10.3 Recommendations for future studies:

1. The role of Knowledge management in improving Manpower Planning.
2. Effect of Leadership Styles on Achieving Development managers.
3. The Role of Strategic Management of Human Resources in Achieving Development managers.
4. Effect of Knowledge management in Strategic Performance.

References:

Abker, A. Y., Mohamed, A. T., Ibrahim, S. B., & Eltayeb, T. K. (2019). Knowledge acquisition and knowledge sharing as determines of organizational competitive advantage. **American Journal of Business, Economics and Management**, 7(1), 32–39

Agnihotri, A., Bhattacharya, S., Vrontis, D. and Monge, F. (2024), "Managerial values and sustainable oriented innovation: Examining the role of knowledge exploration versus exploitation practices", **Journal of Knowledge Management**, Vol. ahead-of-print No. ahead-of-print.

Al-Qaisi and Mahmoud, Fadel Hamad and Zidkhoam, (2015). Leadership skills and their impact on strategic planning: applied research in the Ministry of Planning. **Journal of Economic and Administrative Sciences**, 21(86), 196-226.

Anumba, C. J., Egbu, C., & Carrillo, P. (Eds.). (2008). **Knowledge management in construction**. John Wiley & Sons. Bass, B. M. Bass & Stogdill's Handbook of Leadership. 3rd ed.

Bashir, M., Farooq, R. and Naqshbandi, M.M. (2024), "The impact of business model innovation and knowledge management on firm performance: an emerging markets perspective", **Business Process Management Journal,** Vol. ahead-of-print No. ahead-of-print.

Bettiol, M., Di Maria, E., & Micelli, S. (2020). **Knowledge Management and Industry** 4.0.

Bhatt, G.D. (2001). Knowledge management in organizations: Examining the interaction between technologies, techniques and people**. Journal of Knowledge Management**, 5(1), 68-75

Bloodgood, J. M. (2019). Knowledge acquisition and firm competitiveness: The role of complements and knowledge source**. Journal of Knowledge Management**, 23(1), 46–66. https://doi.org/10.1108/JKM-09-2017-0430

Bratton, J., Gold, J., Bratton, A., & Steele, L. (2021). **Human resource management**. Bloomsbury Publishing.

Burke, W. W., & ANoumair, D. (2015). **Organization development**. Paul Boger.

Chapman, E., Haby, M. M., Toma, T. S., de Bortoli, M. C., Illanes, E., Oliveros, M. J., & Barreto, J. (2020). Knowledge translation strategies for dissemination with a focus on healthcare recipients: An overview of systematic reviews. **Implementation Science**, 15(1): 14. https://doi.org/10.1186/s13012-020-0974-3.

Choo, C. W. (2013). Perspectives on managing knowledge in organizations. Knowledge Organization and Classification in International Information Retrieval, 205–220, 9374.https://doi.org/10.1300/J104v37n01_14

Chopra, M., Saini, N., Kumar, S., Varma, A., Mangla, S. K., & Lim, W. M. (2021). Past, present, and future of knowledge management for business sustainability. **Journal of Cleaner Production,** 328, 129592.

Chapman, E., Pantoja, T., Kuchenmüller, T., Sharma T., & Terry, R.F. (2021). Assessing the impact of knowledge communication and dissemination strategies targeted at health policy-makers and managers: An overview of systematic reviews. **Health Research Policy and Systems**, 19, 140. https://doi.org/10.1186/s12961-021-00780-4

Crespo, M. D. V., Betancourt, L. A. A., Joniaux, C. A. M., & Monier, Y. P. R. (2021). Evaluation of the impact of leadership competence in the administrative management of the banking system in Manta, Ecuador. **International journal of economic perspectives**, 15(1), 162-177.

Dehghani, M., & Akhavan, P. (2017). An experimental investigation of knowledge acquisition techniques. Journal of Management Development, 36(4), 493–514. https://doi.org/10.1108/JMD-07-2016-0132

Dei, D.-G.J. (2024), "Sustainability and development of EWE communities in Ghana through indigenous knowledge management practices", **Collection and Curation**, Vol. ahead-of-print No. ahead-of-print.

El-Helou, A. A. M. (2010). The Effect of Delegation of Powers on the Development of Administrative Skills of Employees: A Field Study on Palestinian Universities in the Gaza Strip. **Master of Business Administration**, Faculty of Commerce, Islamic University / Gaza.

Fauzi, M.A., Pradhan, B., Sapuan, N.M. and Kusumastuti, R.D. (2024), "The application of knowledge management in disaster management: past, present and future trends", **Journal of Knowledge Management**, Vol. 28 No. 4, pp. 1141-1163.

Fraihat, B. A. M. A., & Samadi, B. (2017). The effect of KM capabilities on the Performance of Jordanian Public Listed Companies. **International Journal of Business and Social Research**, 7(11), 9–20. https://doi.org/10.18533/ijbsr.v7i11.1077

Gaines, B. R. (2013). Knowledge acquisition: Past, present and future**. International Journal of Human Computer Studies,** 71(2), 135–156. https://doi.org/10.1016/j.ijhcs.2012.10.010

Garavan, T. N. (2007). A strategic perspective on human resource development. Advances in Developing Human Resources, 9(1), 11-30.

Grant, R. M. (1996). Toward a knowledge-based theory of the firm. **Strategic Management Journal**, 17(2): 109-122.

Girard, J., & Girard, J. (2015). Defining knowledge management: Toward an applied compendium. **Online Journal of Applied Knowledge Management,** 3(1).

Griffin, R.W., & Moorhead, G., (2014). **Organizational Behavior: Managing People and Organizations**. 10th ed., South - Western.

Hislop, D., Bosua, R., & Helms, R. (2018). **Knowledge management in organizations: A critical introduction**. Oxford university press.

Homburg, C., Grozdanovic, M. & Klarmann, M. (2007). Responsiveness to customers and competitors: The role of affective and cognitive organizational systems**. Journal of Marketing,** 71, 18-38.

Jarrahi, M. H., Askay, D., Eshraghi, A., & Smith, P. (2023). Artificial intelligence and knowledge management: A partnership between human and AI. **Business Horizons**, 66(1), 87-99.

Kohli, A.K. & Jaworski, B.J. (1990). Market orientation: The construct, research propositions and managerial implications. Journal of Marketing, 54, 1-18.

Kohli, A.K., Jaworski, B.J. & Kumar, A. (1993). MARKOR: A measure of market orientation. Journal of Marketing Research, 30, 467-477

Lan, M. T., & Hung, T. H. (2018). The leadership competency in vietnam public administration. **Organizations and markets in emerging economies**, 9(1), 8-20.

Lehrer, K. (2018). **Theory of knowledge.** Routledge.

Lewis, D. (2020). **Elusive knowledge**. **In Arguing About Knowledge** (pp. 479-495). Routledge.

Liebowitz, J., & Frank, M. (Eds.). (2016). **Knowledge management and e-learning**. CRC press.

Luthra, A., Arya, V., Dixit, S., Roy, H. and Sasso, P. (2024), "Knowledge management is no more a gray area in the tourism industry in India – a study on transformation leadership and executive communication", **Journal of Knowledge Management**, Vol. 28 No. 6, pp. 1711-1745.

Mathis, R. L., Jackson, J. H., Valentine, S. R., & Meglich, P. A. (2017). **Human resource management.** Cengage learning.

Narver, J.C. & Slater, S.F. (1990). The effect of a market orientation on business profitability. **Journal of Marketing** 54, 20-35.

Ng, Y., Lee, V., Foo, A.T. & Gan, P. (2012). The relationship between knowledge management practices and technological innovation: A conceptual framework. **International Journal of Management, Knowledge and Learning**, 1(1), 71-89.

North, K., & Kumta, G. (2018). **Knowledge management: Value creation through organizational learning**. Springer.

Okoye, P. V. C., & Ezejiofor, R. A. (2013). The effect of human resources development on organizational productivity. **International Journal of Academic Research in Business and Social Sciences**, 3(10), 250.

Piwowar-Sulej, K., Malik, S., Shobande, O. A., Singh, S., & Dagar, V. (2024). A contribution to sustainable human resource development in the era of the COVID-19 pandemic. **Journal of Business Ethics**, 191(2), 337-355.

Quarchioni, S., Paternostro, S., & Trovarelli, F. (2022). Knowledge management in higher education: a literature review and further research avenues. **Knowledge Management Research & Practice**, 20(2), 304-319.

Rasula, J., Vuksic, V.B. & Stemberger, M.I. (2012). The impact of knowledge management on organizational performance. **Economic and Business Review**, 14(2), 147-168.

Raelin, J. A., & Coghlan, D. (2006). Developing managers as learners and researchers: Using action learning and action research**. Journal of management education**, 30(5), 670-689.

Restuputri, D.P., Masudin, I., Septira, A.P., Govindan, K. and Widayat, W. (2024), "The role of knowledge management to improve organizational performance through organizational ambidexterity within the uncertainties", **Business Process Management Journal**, Vol. ahead-of-print No. ahead-of-print.

Rohma, F.F. and Khoirunnisa, F.R. (2024), "The effects of knowledge sharing, self-efficacy and performance: does initiation of structure leadership matter?", **Journal of Asia Business Studies**, Vol. ahead-of-print No. ahead-of-print.

Ruben, B.D. (2019), "An Overview of the Leadership Competency Framework", Gigliotti, R.A. (Ed.) Competencies for Effective Leadership, **Emerald Publishing Limited, Leeds**, pp. 19-28.

Sharma, M.L. (2016). Different Managerial Skills in Corporate Governance. Paripex - **Indian Journal of Research,** 5(9), 166-167.

Stone, R. J., Cox, A., Gavin, M., & Carpini, J. (2024). **Human resource management**. John Wiley & Sons.

Sumbal, M.S., Amber, Q., Tariq, A., Raziq, M.M. and Tsui, E. (2024), "Wind of change: how ChatGPT and big data can reshape the knowledge management paradigm?", **Industrial Management & Data Systems**, Vol. ahead-of-print No. ahead-of-print.

Swanson, R. A. (2022). **Foundations of human resource development**. Berrett-Koehler Publishers.

Wahid, K. A., Numprasertchai, H., Sudharatna, Y., Laohavichien, T., & Numprasertchai, S. (2015). The impact of knowledge sources on knowledge creation: A study in Thai innovative companies. Joint International Conference, 27(3), 237–250

Zhang, Y., Xiong, P., Rong, S., Frost, M. and Zhou, W. (2024), "Knowledge management of MNCs in the post-COVID era: the role of cultural intelligence and knowledge-oriented leadership", **Journal of Knowledge Management**, Vol. ahead-of-print No. ahead-of-print.