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The Role of Knowledge Management Practices in Implementing Digital Transformation

(A Field Study on the Public Security Sector in Asir Region)

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Abstract

The study aimed to investigate the impact of implementing knowledge management practices on facilitating digital transformation initiatives among civilian personnel within the Public Security Agency. The research focused on civilians located in the Asir region, comprising a total of 509 individuals. Findings revealed a significant correlation between adopting knowledge management strategies and advancing digital transformation efforts. Particularly noteworthy were the benefits of workshops, facilitating knowledge exchange and experiences, and leveraging digital transformation techniques for knowledge storage. The study yielded several recommendations, emphasizing the importance of continuously evaluating and updating stored knowledge to ensure its relevance and applicability in evolving work environments. Additionally, it stresses the necessity of providing periodic training sessions to employees on the electronic transformation programs endorsed by the security apparatus management for the effective execution of operational tasks.

Keywords: Knowledge management, digital transformation, civilian personnel, public security agency, Asir region of Form

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Introduction

Interest in knowledge management practices and their application in organizations has recently surged. This interest revolves around processes integral to organizations, facilitating knowledge generation, utilization, organization, and dissemination. Such practices aim to transfer knowledge effectively throughout the organization, nurturing employee skills and fostering cognitively diverse intellectual capital. Moreover, modern work environments necessitate adeptness in learning, swift adaptation, proficiency in information technology, teamwork, and the cultivation of unique skills that differentiate from traditional roles now automated by systems (Badir, 2013; Titi, 2010).

The significance of knowledge management has escalated due to heightened market competition, innovation rates, competitive pressures, and workforce reductions. Organizations embracing knowledge management witness enhancements in product or service quality, innovation encouragement, knowledge sharing, cost reduction, and sustainable growth. Digital transformation, a process integrating innovative digital capabilities into business models, is imperative for organizations to remain competitive, enhance operational efficiencies, reduce costs, attract customers, and outshine competitors (Ibrahim, 2014; Asia, 2021). This transformation aids in adapting to rapidly changing business environments and fosters excellence and networked organizational structures, connecting with entities globally (Ali, 2013).

Theoretical framework

The concept of digital transformation refers to the changes brought about by technology for digital business, where organizations are witnessing a technical and social transformation, and the concept of digital change refers to multiple social and technical phenomena and the processes of using these technologies in broader individual, organizational and societal trends. Despite the good opportunities that digital transformation has brought to institutions, it has created new pressures on organizations to develop capabilities and capabilities to implement digital transformation (Dang-Pham, D., Hoang, A. P., Vo, D. T., & Kautz, K. (2022).)

Digital transformation consists of 7 main elements, namely business modelling, organizational structure, digital skills of employees, digitization of business, information technology infrastructure, digitization of products and digital channels to deal with customers, and digital transformation includes providing services of the same high quality across all access and at any time through cloud services, according to the study of Schwertner, K. (2017).

Digital transformation (DT) is an effective strategic initiative for organizations to keep pace with the digital economy and to correct outputs.) Abdurrahman, A., Gustomo, A., & Prasetio, E. A. (2024) This digital transformation helps adapt to rapidly changing business environments and promotes excellence, networked organizational structures, and communication with entities globally (Ali, 2013). Digital transformation facilitates the dissemination of information and good practices using big data. Di Vaio, A., Palladino, R., Pezzi, A., & Kalisz, D. E. (2021) To achieve digital transformation, the organization needs two aspects, one related to the use of technologies in the value chain and the other to the changes that affect it such as people, culture and knowledge (Nicolás-Agustín, Jiménez-Jiménez & Maeso-Fernandez 2021).

The role of the knowledge management system is not limited to the efficiency of the internal and external knowledge allocation processes of the organization in Qatar but also to exploiting the innovative potential of the organization at several levels, which affects the organization's business model (Chen, Y., Pan, X., Liu, P., & Vanhaverbeke, W. (2024).

Knowledge management is the understanding and focus on the management of systematic and explicit things and the construction of approved knowledge, renewal and application, a process that involves the finest basic processes for the creation, storage, retrieval, transfer and application of knowledge, and there are two types of tacit and explicit knowledge and means tacit knowledge is the knowledge embedded in the experiences of individuals and their interactions and tacit knowledge is one of the most valuable types of knowledge that can be possessed because of its natural characteristics because its development takes a long time and Explicit knowledge is knowledge that can be easily collected, stored, applied and transmitted (Pitman, C. B. (2016)

The Kingdom of Saudi Arabia, aligning with Vision 2030, is actively pursuing digital transformation across public and private sectors. This initiative emphasizes empowering workers through cognitive enhancements and developing transformative applications to enhance organizational performance. Within this context, this study seeks to explore the role of knowledge management practices in facilitating digital transformation within the public security sector of the Asir region. The study aims to address questions regarding motivations for adopting knowledge management practices, the current level of adoption, the concept of digital transformation, its implementation status, and the requirements for its application in the public security sector (Vision 2030).

The study holds theoretical and practical significance by adding to the scientific understanding of knowledge management and digital transformation. It delineates a conceptual framework for these concepts and underscores the practical implications of knowledge management in digital transformation within the public security sector. The findings are expected to provide practical models and guidelines for adopting knowledge management practices, thereby enhancing operational efficiency and organizational effectiveness. Additionally, the study aims to draw attention to the critical role of knowledge management

in digital transformation, offering recommendations to decision-makers for achieving organizational goals effectively (Vision 2030).

Methodology

The study examines the impact of applying knowledge management practices on facilitating digital .transformation initiatives among civil servants in the Public Security AgencyThe descriptive approach was used to clarify the theoretical concepts related to the subject, and the analytical approach in the applied side using the questionnaire, which looks for a positive rolein adopting knowledge management practices on applying.digital transformation in the public security sector in Asir region

Results and discussions

Organizations can acquire tacit knowledge, increase its flow, organize, store and share it, and can be guided in adopting knowledge management practices in the application of digital transformation in the ISA, which helps to save time and effort and improves and regulates operational efficiency.

Therefore, the research question is as follows:

What is the impact of applying knowledge management practices on facilitating digital transformation initiatives among civil servants in the ISA?

Analytical descriptive statistical methods were used using the statistical package (SPSS), frequencies and percentages were extracted. arithmetic averages and standard deviations, and the simple regression test was used, and trajectory analysis was used to test the hypotheses of the study. The results of the descriptive statistical analysis of the data, which include arithmetic averages and standard deviations for all axes of the independent study and the paragraphs constituting each axis, were relied upon.

The study population includes all civilian workers at different job levels in the Public Security Agency in Asir region, and their number is (509). A simple random sample was selected representing the study population (civilians in the Asir Region Police) and consisting of (161) single to achieve the study's objectives. The questionnaire was prepared in line with the requirements of the study, and the five-way Likert model was relied on in its design.

The data was analyzed through the Statistical Package for the Social Sciences program.

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The data was analyzed through the Statistical Package for the Social Sciences program.

The following statistical tools were used:

1. Percentages, frequencies, arithmetic mean, relative weight and ranking in order to know the frequency of the categories of a variable and useful in describing the study sample.

2. Cronbach's Alpha test to find out the stability of the resolution paragraphs.

3. Half-segmentation method to measure to know the stability of the paragraphs of the questionnaire.

4..Pearson Correlation Coefficient. To measure the validity of the internal resolution and to verify hypotheses

5. (Independent Sample T-test)، (One-way ANOVA).

The main question: What is the role of adopting knowledge management practices in implementing digital transformation in the public security sector in Asir region?

Several sub-questions emerge from the main question:

First question:

What is the level of adoption of knowledge management practices in the public security sector in Asir region?

To answer this question, the researcher calculated the arithmetic mean, standard deviation and relative weight of the paragraphs of the first axis .

Table (1): Arithmetic mean, standard deviation and relative weight of the first axis

Weight Relative	Standard deviation	Arithmetic mean	Knowledge Management Dimensions	
74.68	.85	3.73	Total score for the first dimension (knowledge (acquisition	
72.47	.920	3.62	The total score of the second dimension, Knowledge Generation	
75.58	.78	3.78	The total score of the third dimension is the distribution of knowledge	
79.83	.67	3.99	Total score of the fourth dimension (knowledge (storage	
81.64	.57	4.08	Total score for the fifth dimension (application of (knowledge	
76.84	.62	3.84	The total degree of the first axis is knowledge management	

The results were as follows:

We find that the level of adoption of knowledge management practices in the public security sector in the Asir region came with an arithmetic average of (3.84), which is a very high level, and a relative weight of (76.8%), which is a degree of approval in responding to the paragraphs of this axis.

This is because knowledge management practices in the public security sector are applied in all its daily dealings, such as permanently acquiring, distributing, storing and sharing knowledge. I agreed with a study (Ibrahim, 2021) that Menoufia University officials should focus on the effectiveness of all knowledge management processes, which aim to ensure the proper flow of knowledge and its access to the right person at the right time and in the right place, and this is what officials in public security are.

The results of the table showed that the fifth dimension, "application of knowledge," ranked first with an arithmetic average of (4.08) and a relative weight of (81.6%) and that the second dimension, "knowledge generation", ranked last with an arithmetic average of (3.62) and a relative weight of (72.4%).

This is due to the interest in practicing the application of knowledge, without using appropriate mechanisms to generate knowledge among employees, as the weakness in the second dimension of knowledge management is evidence that the mechanisms of work on knowledge generation were not deliberate steps to obtain guaranteed results.

The study (Abboud, 2021) recommended the need to focus on knowledge management in the organization and its application at all levels, and to understand it in an integrated manner, and to pay attention to it and support it from senior management, because this enables the development of a knowledge management plan, and a body must be identified to follow up the workflow within the framework of correct knowledge management at all levels correctly.

A study (Mansour, 2021) stressed the need to develop an organizational culture that supports the production and management of knowledge and senior management must support the generation, dissemination and circulation of knowledge.

We find that the workshops help the agency in exchanging knowledge and experiences necessary for knowledge management, as it is needed for knowledge management within the ISA to acquire the required knowledge, while business sharing within the institution is not needed for employees to participate in all work, as each employee has his own work that must be performed to the fullest, and participate in work that does not hinder his essential work only.

The application of knowledge works to achieve digital transformation within the organization; without knowledge and correct understanding of all mechanisms and processes of digital transformation, it will not be completed properly, but the application of knowledge needs to provide all the material and human requirements to achieve the knowledge through which digital transformation will be achieved. The researcher attributes the weakness in the provision of supplies to the weakness of the budget, or the inefficiency in the investment and distribution of budgets allocated within the device, which hinders the provision of these supplies permanently.

Second question:

What is the degree of implementation of digital transformation in the public security sector in Asir region?

To answer this question, the researcher calculated the arithmetic mean, standard deviation and relative weight of the paragraphs of the second axis

Table (2) Arithmetic mean, standard deviation and relative weight of the second axis

Weight Relative	Standard deviation	Arithmetic mean	Digital Transformation Dimensions	
78.21	.74	3.91	Total score for the first dimension, Human Resources	
77.71	.79	3.89	The total score of the second dimension of digital culture	2.
82.56	.63	4.13	Total score of the third dimension operations	3.
80.55	.63	4.03	Total Grade of the Fourth Dimension of Techniques	
79.6	.62	3.98	The total degree of the second axis	

The results were as follows:

Through the results, it was found that the degree of application of digital transformation in the public security sector in Asir region came with an arithmetic average (3.98) (which is a very high score) and a relative weight of (79.6%), which is a degree of approval in responding to the paragraphs of this axis.

This is because the trend towards digital transformation within the ISA is new to keep pace with global technological development and achieve the Kingdom's Vision 2030, as the coming years will work with the leadership of the ISA to increase and develop the level of digital transformation within the ISA.

The results of the table showed that the third dimension "operations" ranked first with an arithmetic average of (4.13), and a relative weight of (82.5%), and that the second dimension "digital culture" ranked last with an arithmetic average of (3.98) and a relative weight of (77.7%).And it's still very high.

This is because the processes necessary to manage digital transformation are the most important within the ISA to provide the required knowledge to all employees to implement digital transformation. In contrast, digital culture needs increased attention from the ISA leadershipbecause the adoption of da

We find that the ISA has implemented training programs for all employees commensurate with their abilities according to the field of work of each employee, to increase their knowledge to implement digital transformation.

A study (Nicolás-Agustín, Jiménez-Jiménez & Maeso-Fernandez 2021) recommended the need to focus on HR practices that must be implemented in favour of digital transformation, such as aligning the company's vision and values, implementing remote work policies, creating a good work environment through sound leadership, and involving employees in strategic decision-making.

The leaders in the ISA have worked to adopt all knowledge management practices to implement digital transformation, as they conduct some awareness and educational campaigns for employees about digital transformation to increase their knowledge in all mechanisms and steps of digital transformation, to make it easier for them to then work on its application and support in qualitative digital transformation within the ISA.

The basis of digital transformation is to initially simplify procedures to achieve speed and achievement at work, and this is done through the administrative manuals that the security apparatus is working on before starting to convert all operations within the agency into electronic operations through the digital transformation system within the ISA.

Also, the existence of an evident culture of digital transformation within the device and training on using all digital transformation tools within the device helped all employees deal with all electronic platforms and programs. However, the software did not cover all the work within the device because the digital transformation still needs to be developed and completed to reach the comprehensive digital transformation within the device.

Discussion of the hypotheses of the study:

The first main hypothesis:

There is a positive role to play in adopting knowledge management practices on the implementation of digital transformation in the public security sector in Asir region. The following hypotheses branch out:

1. There is a statistically significant positive relationship between knowledge acquisition and the implementation of digital transformation.
2. There is a statistically significant positive relationship between knowledge generation and the implementation of digital transformation.
3. There is a statistically significant positive relationship between knowledge storage and the application of digital transformation.
4. There is a statistically significant positive relationship between knowledge distribution and the application of digital transformation.
5. There is a statistically significant positive relationship between the application of knowledge and the application of digital transformation.

To find this relationship, Pearson's correlation coefficient was found to verify a relationship between the averages of the responses of the respondents towards the reality of knowledge management practices and the averages of the responses of the respondents towards the application of digital transformation.

Table (3): Correlation coefficient between knowledge management practices and the application of digital transformation

P-value (Sig)	Correlation coefficient	
<0.001	0.436	Knowledge acquisition
<0.001	0.446	Knowledge Generation
<0.001	0.409	Knowledge storage
<0.001	0.784	Knowledge Distribution
<0.001	0.795	Application of knowledge
<0.001	0.665	Knowledge Management Practices

Correlation D statistically at the level of significance (α = 0.01).

We find that the correlation coefficient between knowledge management practices and the application of digital transformation is equal to (0.665) and that the probability value (Sig) is equal to (0.001), which is less than the significance level (α = 0.05).

This indicates a statistically significant positive relationship at the level of significance (0.05) between knowledge management practices and the application of digital transformation.

There is also a positive relationship between the dimensions of knowledge management practices and the application of digital transformation, according to the probability value, where it was less than (0.05) in all areas, and this confirms the acceptance of the following hypotheses:

1. There is a statistically significant positive relationship between knowledge acquisition and the implementation of digital transformation.
2. There is a statistically significant positive relationship between knowledge generation and the application of digital transformation.
3. There is a statistically positive relationship between knowledge storage and the implementation of digital transformation.
4. There is a statistically positive relationship between the distribution of knowledge and the implementation of digital transformation.
5. There is a statistically positive relationship between the application of knowledge and the application of digital transformation.

The second main hypothesis:

Are there statistically significant differences between the responses of respondents on the role of adopting knowledge management practices in applying digital transformation in the public security sector in Asir region due to the following variables (gender, educational level, job title, years of experience)?

using the independent sample T-test, the nihilistic hypothesis

was tested, which states that there were no statistically significant differences between the responses of the sample members on the role of adopting knowledge management practices in the application of digital transformation in the public security sector in the Asir region attributed to the variable (gender) versus the alternative hypothesis (H1).), which states that there are statistically significant differences between the responses of the respondents on the role of adopting knowledge management practices in the application of digital transformation in the public security sector in the Asir

region attributed to the variable (gender), and to verify the validity of the hypothesis, the Independent sample t-test was used;

Table (4) Independent sample t-test to find differences in sample opinions according to gender variable

Significance level	Significance value	Value "T"	Standard deviation	Average	Number	Categories
Statistically significant	0.001	3.931	.55391	4.1167	63	male
			.54181	3.7697	98	female

The results showed that there were statistically significant differences between the responses of the sample members on the role of adopting knowledge management practices in the application of digital transformation in the public security sector in the Asir region attributed to the variable (gender), where the significance value was statistically significant at the significance level ($\alpha = 0.05$), and the differences were in favour of males, according to the arithmetic average.

Using the One-Way ANOVA test, the null hypothesis (H0) was tested, stating that there are no statistically significant differences in respondents' perceptions of the role of adopting knowledge management practices in implementing digital transformation in the public security sector in the Asir region, based on the two variables: educational level and years of experience. Conversely, the alternative hypothesis (H1) posits that there are statistically significant differences in respondents' perceptions based on these variables. The One-Way ANOVA test was conducted to validate the hypothesis, and the results are presented in the following table.

Table (5) One Way ANOVA coefficient to find differences in the opinions of the sample due to the following two variables: (educational level, years of experience)

level Significance	value Significance	value "P"	medium squares	degree Freedom	sum squares	sum squares	Variables
Not statistically significant	0.382	1.028	.335	3	1.004	Between groups	Education level
			.326	157	51.110	Inside groups	
				160	52.114	Total	
Not statistically significant	0.063	2.483	.787	3	2.361	Between groups	yrs Experience
			.317	157	49.754	Inside groups	
				160	52.114	Total	

The results showed that the calculated value of (q) is less than (q) tabular, i.e. there are no statistically significant differences between the responses of the sample members on the role of adopting knowledge management practices in applying digital transformation in the public security sector in Asir region attributed to the following two variables (educational level, years of experience), where the significance value was statistically significant at the significance level (0.05), and therefore we accept the nihilistic hypothesis.

Conclusions

The study highlights the pivotal role of knowledge management practices in facilitating digital transformation within the public security sector, as evidenced by a significant correlation between their adoption and the advancement of digital initiatives. Key findings highlight the efficacy of workshops in fostering knowledge exchange and utilizing digital tools for information storage. Recommendations include establishing a dedicated knowledge management department, enhancing employee awareness, regularly updating stored knowledge, providing ongoing training on electronic transformation programs,

conducting periodic problem-solving meetings, involving all agency employees in knowledge management processes, and continuously evaluating and improving electronic programs to align with operational needs. These strategies are essential for ensuring the effective implementation of digital transformation initiatives and enhancing overall agency performance and public perception.

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References

1. .Abdurrahman, A., Gustomo, A., & Prasetio, E. A. (2024). Enhancing banking performance through dynamic digital transformation capabilities and governance, risk management, and compliance: Insights from the Indonesian context. The Electronic Journal of Information Systems in Developing Countries, 90(2), e12299.
2. Abboud, Zarif. (2021). The impact of change management on the success of implementing knowledge management [Master's thesis, Larbi Ben M'hidi University]. Scientific researcher.
3. Abd Alkhair, Asia Yagoub Al-Hadi. (2021). the role of digital transformation in activating e-learning at King Khalid University during the Corona pandemic. (COVID-19). Journal of Economic, Administrative and Legal Sciences, 5(21). 103-122.
4. Badir, Jamal Youssef. (2013). Modern trends in knowledge and information management. Dar Treasures of Knowledge for Publishing and Distribution.
5. Chen, Y., Pan, X., Liu, P., & Vanhaverbeke, W. (2024). How does digital transformation empower knowledge creation? Evidence from Chinese manufacturing enterprises. *Journal of Innovation & .Knowledge*, *9*(2), 100481.
6. Dang-Pham, D., Hoang, A. P., Vo, D. T., & Kautz, K. (2022). Digital kaizen: An approach to digital transformation. *Australasian Journal of Information Systems*, *26*.
7. Di Vaio, A., Palladino, R., Pezzi, A., & Kalisz, D. E. (2021). The role of digital innovation in knowledge management systems: A systematic literature review. *Journal of business research*, *123*, 220-231.
8. Digital transformation program. In the vision of the Kingdom of Saudi Arabia 2030.
9. Hovinga, D. A. (2014). *Organizational and Personal Values Impact on Knowledge Transfer* (Doctoral dissertation, Open Access Te Herenga Waka-Victoria University of Wellington).
10. https://www.vision2030.gov.sa/ar/v2030/vrps/ntp/.
11. Mansour, Mahmoud Abdullah Muhammad. (2021). Digital transformation as a mechanism for developing human capital in university education institutions. Journal of Studies in Social Work, 54(1), 161-198.
12. Nicolás-Agustín, Á., Jiménez-Jiménez, D., & Maeso-Fernandez, F. (2022). The role of human resource practices in the implementation of digital transformation. *International Journal of Manpower*, *43*(2), 395-410.
13. Pitman, C. B. (2016). Investigating engineering knowledge management as a foundation for capability development at Engen Refinery (Doctoral dissertation).
14. Schwertner, K. (2017). Digital transformation of business. *Trakia Journal of Sciences*, *15*(1), 388-393.
15. Taiti, Khidr Misbah Ismail. (2010). Knowledge management challenges, techniques and solutions. Dar Al-Hamid for publication and distribution.