10.051103/OMMS.260605102
Vol.5 Iss.1 pp.12-21 **Journal of Operational Management & Marketing Strategies (OMMS)**

The Key Role of Managerial Capabilities in AI Adoption: The Case of Companies Operating in Tunisia

Refka Mediouni[1], Moetez Khemiri[2]

[1]LARIME, ESSECT, University of Tunis,
92 Boulevard 9 Avril 1938, 1007 Tunis, Tunisia.
[2]LIGUE, University of Manouba,
University Campus of Manouba 2010, Manouba, Tunisia
refkamediouni@gmail.com
moetez.khemiri87@gmail.com

***Abstract*—The integration of Artificial Intelligence (AI) represents a major strategic challenge for companies, a challenge that is strongly conditioned by the managerial capabilities of their leaders. In Tunisia, mastery of these competencies has become an essential issue for developing effective and context-appropriate AI integration strategies. The objective of this research is to examine the impact of managerial capabilities on AI adoption in companies operating in Tunisia. A questionnaire was distributed to a representative sample of executives and senior managers from various economic sectors, selected using a probabilistic sampling method to ensure representativeness. The results highlight that general digital maturity is a necessary but insufficient condition for AI adoption. For Tunisian decision-makers, the challenge is no longer merely to "digitize," but to transform leadership in order to manage complexity and risk. The study suggests moving beyond conservative visions and strengthening AI-specific training to overcome execution constraints.**

Keywords—Companies Operating in Tunisia- Artificial Intelligence (AI)- Digital Transformation- Managerial Capabilities.

I. INTRODUCTION

In a context of accelerated digital transformation, marked by the rise of disruptive technologies such as artificial intelligence, big data, and robotics, companies are facing a profound reconfiguration of their organizational and strategic models [37]. The integration of artificial intelligence (AI) technologies within companies is becoming a major strategic challenge, shaped by the managerial capabilities of leaders. Indeed, these capabilities encompass a range of skills such as strategic vision, change management, and the ability to mobilize the necessary human and technical resources that determine the perception, preparation, and implementation of technological innovations ([41]; [22]; [40]; [46]).

Although the benefits of AI are recognized, their realization depends heavily on the managerial capabilities of leaders [20]. In the Tunisian context, characterized by specific economic and institutional features, these capabilities play a crucial role in overcoming obstacles to AI adoption, such as a lack of resources or specialized expertise ([12]; [23]; [31]).

Within this framework, the main objective of this article is to examine the influence of managerial capabilities on AI adoption in companies operating in Tunisia. Our study is organized as follows: Section 1 presents a literature review, focusing on the theoretical foundations of managerial capacity dimensions and their relationship with artificial intelligence. The following section describes the methodology used. Then, we present and analyze the findings of our study. Finally, we highlight the theoretical and managerial implications, as well as avenues for future research.

II. LITERATURE REVIEW

The success of digital transformation [26] and the strategic deployment of AI [30] require the development of distinct managerial capabilities [34, 29]. These emphasize a clear digital vision of AI's potential [5], the

ISSN: 2961-662X

promotion of an agile culture of change culture based on learning [6], governance and steering mechanisms that enable strategic iteration [17, 34], and finally, digital leadership that fosters delegation and innovation [45, 14] in order to adapt to uncertain environments [27].

A. Digital Vision and Artificial Intelligence

Digital transformation is defined as the strategic integration of digital technologies into organizational processes and business models, with the aim of creating value and strengthening competitive advantage [1], [10]. It is recognized as a key strategic priority for organizations [37]. This dynamic relies on the development of advanced technological capabilities and high-performing information systems, which foster improved operational performance [21], [35].

In this context, artificial intelligence, considered a disruptive technology and a major driver of organizational performance [28], appears as a natural evolution of this digital trajectory. Several studies also highlight that value creation from AI technologies depends on the prior existence of robust digital capabilities and a clear strategic orientation toward digital transformation, conditioning both the necessary infrastructure and the potential for organizational impact [32]. Based on these observations, we formulate the following hypothesis:

H1: A clear digital vision has a positive impact on the adoption of AI.

B. Engagement, Culture, and Artificial Intelligence

According to [42] and [2], digital culture is defined as the set of values, beliefs, and behaviors shared within an organization that actively enhance and support the digital transformation process. [38] specifies that, to integrate artificial intelligence, leaders must establish an organizational learning culture in which AI is considered complementary to human skills.

This engagement and openness to cultural change are therefore fundamental to the successful integration of AI. Furthermore, culture is considered a crucial prerequisite for digital transition, influencing technology adoption and the overall effectiveness of digitization initiatives [15], [35].

H2: Engagement and a culture of change have a positive impact on AI adoption.

C. Governance, Steering, and Artificial Intelligence

Organizational capabilities are defined as the result of the strategic combination and deployment of complementary resources within a company, with the aim of acquiring a sustainable competitive advantage [28]. The concept of AI governance, for its part, is characterized as a set of tools, solutions, and levers intended to influence the development and applications of AI [8].

According to [13], it is crucial to differentiate between IT governance, which manages hardware and software assets to automate tasks, and data governance, which oversees these resources as valuable information assets. Based on these previous studies and the existing literature that addresses value creation through governance [39], we formulate the following hypothesis:

H3: Effective governance and steering have a positive impact on AI adoption.

D. Digital Leadership and Artificial Intelligence

Digital leadership is defined as a dynamic capability essential to the success of digital transformation [24], [19]. According to [6], this leadership is based on fundamental principles such as agility, strategic thinking, effective communication, commitment, and continuous learning. [3] further develops this perspective by specifying that the primary role of the digital leader is to use their influence, similar to transformational leadership, to encourage innovation and foster organizational adaptation to change.

There is broad consensus in the scientific literature on the importance of establishing strong digital leadership [8], [11] and cultivating a suitable digital culture to ensure the success of digital transformation [9], [43]. This allows us to formulate the following hypothesis:

H4: Strong digital leadership has a positive impact on AI adoption.

ISSN: 2961-662X

10.051103/OMMS.260605102
Vol.5 Iss.1 pp.12-21 **Journal of Operational Management & Marketing Strategies (OMMS)**

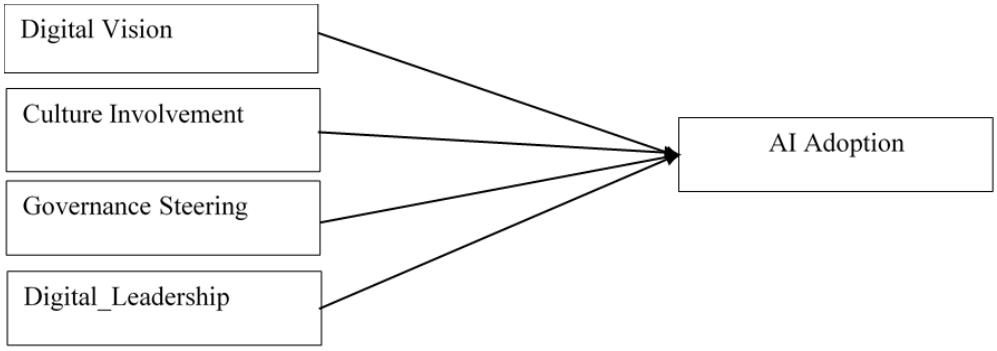

Fig. 1 Conceptual Model of Managerial Determinants Influencing AI Adoption

II. RESEARCH DESIGN AND DATA ANALYSIS

A. *Methodologies*

This research examines two variables: the adoption of artificial intelligence (AI) and managerial capabilities related to digital transformation. The AI adoption variable was measured using three items that evaluate firms' propensity to use AI technologies, their general openness to adopting new technologies, and their ability to implement AI to enhance organizational performance. These items were adapted from the studies of [4].

The managerial capabilities variable was assessed using twelve items grouped into four dimensions: (1) digital vision, (2) involvement and culture of change, (3) governance and management, and (4) digital leadership, based on the work of [44] .These dimensions make it possible to evaluate the clarity of the organization's digital vision, the participation and engagement of employees in the transformation process, the coordination and structuring of digital initiatives, as well as the active support of leadership for digital transformation and AI integration projects.

The measurement scales for both variables were evaluated using a five-point Likert scale, ranging from "strongly disagree" to "strongly agree," in order to ensure a consistent and reliable assessment of organizational perceptions and practices related to digital transformation and AI adoption.

B. Data Collection

To study the impact of digital capabilities on AI adoption among companies operating in Tunisia, an empirical study was conducted using an online and paper questionnaire.

A total of 102 valid questionnaires were used for the analysis. The sample of companies consisted of 58.8% private companies, 27.5% public companies, and 13.7% semi-public companies.

Regarding the nature of capital, Tunisian companies overwhelmingly dominate the sample, representing 75.5% of the businesses. Companies with foreign capital (15.7%) or mixed capital (8.8%) constitute a significant minority. In terms of size, the sample focuses on larger businesses: medium-sized (41.2%) and large (40.2%) companies together make up 81.4% of the surveyed entities. Small businesses (18.6%) are proportionally less represented. Finally, the sectors of activity are concentrated around the production and service sectors, with Services (30.4%) and Industry (28.4%) accounting for nearly 60% of the sample. Telecommunications (16.7%) and Public Administration (11.8%) complete this picture, while Banking/Finance (8.8%) and Agriculture (3.9%) remain the least represented sectors.

ISSN: 2961-662X

TABLE I
SAMPLE COMPANIES CHARACTERISTICS (N = 102)

Variable	Category	Percentage (%)
Position	**Senior Managers**	**26.5**
	Administrative Staff	**22.5**
	Engineers / Technicians / Researchers	**22.5**
	Middle Managers	**13.7**
	Communication / Marketing Officers	**6.9**
Age	**Under 30**	**28.4**
	30–39	**44.1**
	40 and above	**27.5**
Gender	**Female**	**52.9**
	Male	**47.1**

In terms of job title, the respondents are predominantly managers: Senior Managers (26.5%), Administrative Staff (22.5%), and Engineers/Technicians/Researchers (22.5%). Executive positions (13.7%) and Communication/Marketing Officer roles (6.9%) are the least common. Analysis by age reveals a particularly young workforce: the 30–39 age group is the largest (44.1%), followed by those under 30 (28.4%). Thus, nearly three-quarters (72.5%) of respondents are under 40, indicating strong involvement of younger generations in the surveyed companies. Finally, the gender distribution is almost equal, with a slight predominance of women (52.9%) over men (47.1%).

TABLE II
RESPONDENTS' PROFILE

Variable	Category	Percentage (%)
Position	Senior Managers	26.5
	Administrative Staff	22.5
	Engineers / Technicians / Researchers	22.5
	Middle Managers	13.7
	Communication / Marketing Officers	6.9
Age	Under 30	28.4
	30–39	44.1
	40 and above	27.5
Gender	Female	52.9
	Male	47.1

C. Reliability and Validity of Measurements

According to [25], measurement model validity depends on reliability, the quality of fit indices, and evidence of construct validity, particularly convergent and discriminant validity.

Table 1 summarizes the main results of the items retained after purging the measurement scales through an exploratory analysis. The reliability tests show good results for all the variables adopted in this research. Indeed, all items have an acceptable loading greater than 0.7. Furthermore, the reliability tests show a Cronbach's alpha (α) and Composite Reliability (CR) greater than the recommended threshold of 0.7 [18]. We used SPSS and PLS-SEM to conduct our statistical analyses.

ISSN: 2961-662X

TABLE III
RELIABILITY INDICATORS AFTER ITEM PURGING

Measurement Scales		**Factor Loading**	**Reliability Index**	
Symbol	**Number of items**	**Loading**	**CR**	**Cronbach's Alpha**
Digital_Vision	**3**		**0,905**	**0,843**
Digital_Vision1		0,903		
Digital_Vision2		0,898		
Digital_Vision3		0,814		
Culture_Involvement	**3**		**0,869**	**0,774**
Culture_Involvement1		0,811		
Culture_Involvement2		0,798		
Culture_Involvement3		0,879		
Governance_Steering	**3**		**0,886**	**0,808**
Governance_Steering1		0,823		
Governance_Steering2		0,874		
Governance_Steering3		0,851		
Digital_Leadership	**3**		**0,902**	**0,838**
Digital_Leadership1		0,869		
Digital_Leadership2		0,811		
Digital_Leadership3		0,922		
IA-Adoption	**3**		**0,934**	**0,894**
IA-Adoption1		0,888		
IA-Adoption2		0,947		
IA-Adoption3		0,890		

The results presented in Table 2 show that the convergent validity of the model variables is satisfactory, as the Average Variance Extracted (AVE) for each dimension is greater than 0.5 [25]. As indicated in Table 2, the discriminant validity test was analyzed based on the criteria of [16] as well as the cross-loadings criteria. The square roots of the AVEs were calculated and compared to their factorial correlation values. The bold values on the diagonal of Table 2 satisfy the condition of being higher than the correlation values between the constructs and the AVEs, as recommended by [16], thus confirming discriminant validity.

TABLE II
CONVERGENT AND DISCRIMINANT VALIDITY

	AVE	**AI Adoption**	**Governance_ Steering**	**Culture_ Involvement**	**Digital Leadership**	**Digital Vision**
AI Adoption	0,722	**0,909**				
Governance_Steering	0,689	0,589	**0,850**			
Culture_Involvement	0,755	0,569	0,734	**0,830**		
Digital Leadership	0,762	0,611	0,790	0,709	**0,869**	
Digital Vision	0,826	0,506	0,636	0,625	0,637	**0,873**

D. Hypothesis Testing

The results of the structural model revealed that Digital Leadership has a positive impact on the adoption of Artificial Intelligence ($\beta = 0.290$; $t = 2.096$; $p = 0.036$), thus supporting hypothesis H4. Conversely, the results show that the following variables Governance and Steering ($\beta = 0.159$; $t = 1.179$; $p = 0.238$), Cultural Involvement ($\beta = 0.180$; $t = 1.352$; $p = 0.176$), and Digital Vision ($\beta = 0.108$; $t = 1.027$; $p = 0.305$) have a non-significant impact on the adoption of Artificial Intelligence. Therefore, hypotheses H1, H2, and H3 were rejected.

ISSN: 2961-662X

10.051103/OMMS.260605102
Vol.5 Iss.1 pp.12-21 **Journal of Operational Management & Marketing Strategies (OMMS)**

TABLE III
RESULTS OF DIRECT AND INDIRECT RELATIONSHIPS

Paths	β	t-Statistic	p-Value	Conclusion
Governance & Management → AI Adoption	0,159	1,179	N.S	Rejected
Cultural Involvement → AI Adoption	0,180	1,352	N.S	Rejected
Digital Leadership → AI Adoption	0,290	2,096	P<0.05	Accepted
Digital Vision → AI Adoption	0,108	1,027	N.S	Rejected

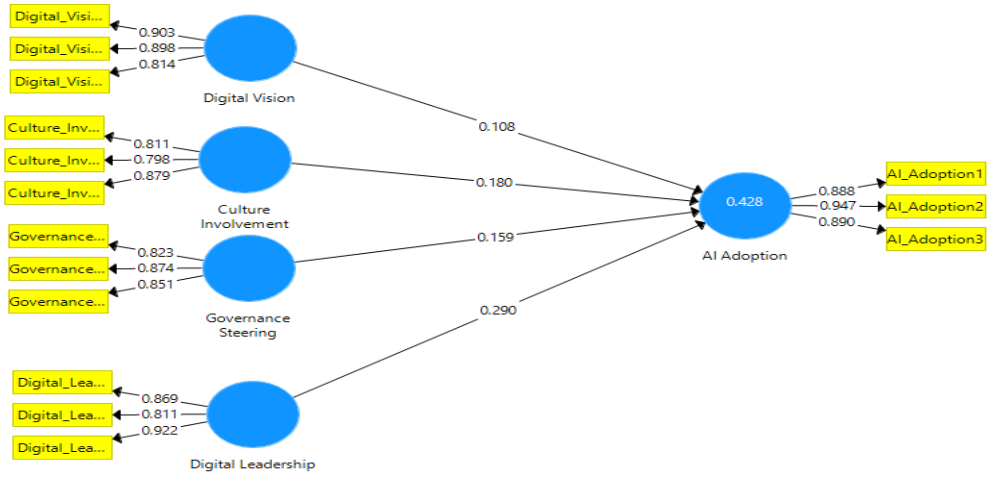

Fig. 2 Structural model results: Path coefficients and R^2 values for AI Adoption.

IV. DISCUSSION OF RESULTS

The results of this research demonstrate that digital vision has a negative impact on the adoption of AI. These findings diverge from previous studies [1], [37], which have shown that strategic clarity is important in promoting the adoption of digital technologies in the context of human resource management and emerging technologies. This highlights that, in the context of Tunisian companies, despite the maturity of digital vision, it remains too conservative and focused on traditional digitalization. Furthermore, this paradoxical impact can be explained by the fact that rigorous strategic alignment becomes a barrier. Indeed, the overall strategy of companies may be dominated by financial prudence, margin optimization, and risk aversion in the face of an uncertain economic environment. In addition, this study revealed that engagement and a culture of change have no significant effect on AI adoption, a finding that diverges from prior studies [36], [15], which position digital culture as a key prerequisite. This lack of significance indicates that the influence of these organizational factors is neutralized by higher-level constraints, suggesting a decoupling between organizational maturity related to general digital processes and the specific requirements of artificial intelligence adoption.

This result confirms that the existence of a culture of change constitutes a necessary but not sufficient condition for AI adoption. Engagement and a culture of change (ECC) appear to be overshadowed by more influential non-cultural barriers, such as a lack of specialized technical skills, financial constraints, or infrastructural limitations. Consequently, the practical difficulties encountered in AI implementation stem primarily from these constraints, indicating that adoption is driven mainly by strategic and technical factors that take precedence over purely organizational willingness.

Similarly, the hypothesis concerning the impact of effective governance and steering mechanisms on AI adoption was rejected, contradicting prior research [28]. Although digital transformation roles are clearly defined, these governance elements remain insufficient to stimulate AI adoption, showing an insufficient focus on the specific infrastructure required by AI [13]. Furthermore, in the Tunisian context, the rejection of this hypothesis reveals a misalignment between investments in digital skills development within human resource

ISSN: 2961-662X

governance and the acquisition of the specialized expertise required for AI implementation. While digital initiatives are generally coordinated through interdepartmental steering, current governance frameworks maintain a broad focus on digital transformation rather than adopting a distinct, rigorous, and targeted AI governance model. This gap reflects a limited level of organizational maturity in translating conventional digital management practices into a coherent AI adoption strategy that requires highly specialized human resources and a dedicated strategic vision.

Conversely, the hypothesis that strong digital leadership has a positive impact on AI adoption was accepted. This result indicates that proactive and effective leadership exerts a positive and significant influence on AI adoption, thereby confirming previous findings [8], [11]. These findings suggest, first, that in the context of companies operating in Tunisia, AI adoption is driven by active leadership support for digital initiatives and the consistent communication of digital values across all organizational levels, ensuring strategic alignment and stakeholder engagement. Second, leadership effectiveness is reinforced through cross-functional collaboration, as reflected in the close cooperation between business and IT managers on AI projects. This collaboration enables AI solutions to be aligned with organizational objectives. Consequently, action- and communication-oriented leadership contributes to rigorous performance management of digital initiatives and facilitates successful AI adoption.

V. CONCLUSION

The objective of this study was to examine the impact of managerial capabilities: namely digital vision, involvement and a culture of change, governance and steering, and digital leadership: on the adoption of artificial intelligence within the specific context of Tunisian companies.

The analysis highlighted the crucial role of digital leadership, whose positive and significant influence on AI adoption confirms the predominance of active leadership support in the strategic allocation of resources and in ensuring effective cross-functional alignment of AI projects. However, the study also revealed paradoxical results, as the negative effect of digital vision suggests that overly cautious strategies or those focused on traditional digitalization hinder the innovative investments required for AI adoption. Furthermore, organizational factors such as a culture involvement and governance and steering were found to be insignificant, as their influence is neutralized by higher-level execution constraints, including a lack of specialized technical skills and AI-specific infrastructural limitations.

From a theoretical perspective, this research enriches the literature on technology adoption in emerging economies. The findings indicate that organizational maturity developed through general digital transformation is a necessary but insufficient condition for AI adoption. Moreover, this study emphasizes the need to refine existing analytical frameworks to account for the paradoxical effect of a conservative strategic vision, which may hinder AI adoption, while underscoring the central role of leadership as a key mechanism for overcoming such strategic resistance.

From a managerial perspective, the findings suggest that companies need to move beyond traditional digital strategies to develop dedicated AI strategies. In this regard, leaders are required to cultivate a leadership style that not only communicates the value of AI but is also capable of managing its technical complexity and fostering a culture of calculated risk-taking. Such leadership is essential to overcoming practical implementation barriers, particularly those related to the management of specialized talent and resistance to technological change.

Despite its contributions, this study has certain limitations, particularly regarding the generalizability of its findings, which is constrained by the specific economic and institutional characteristics of the Tunisian context. Future research could adopt qualitative or longitudinal approaches to explore the mechanisms through which digital vision may become an obstacle to AI adoption. It would also be valuable to examine the moderating effects of implementation barriers, such as financial and infrastructural constraints, in order to better explain the role of cultural and governance factors. Such investigations would contribute to a deeper understanding of the conditions required for successful AI adoption in emerging economies such as Tunisia.

ISSN: 2961-662X

REFERENCES

[1] Al-Alawi, A. I., Messaadia, M., Mehrotra, A., Sanosi, S. K., Elias, H., &Althawadi, A. H. (2023). Digital transformation adoption in human resources management during COVID-19. Arab Gulf Journal of Scientific Research, 41(4), 446–461. https://doi.org/10.1108/AGJSR-05-2022-0069

[2] An, X., Li, Y., & Zhang, H. (2024). Digital culture and AI adoption in organizations: A multi-case study. Journal of Business Research, 174, 114678. https://doi.org/10.1016/j.jbusres.2024.114678.

[3] Avolio, B. J., & Bass, B. M. (2004). Multifactor leadership questionnaire: Third edition manual and sampler set. Mind Garden.

[4] Badghish, S., & Soomro, Y. A. (2024). Artificial Intelligence Adoption by SMEs to Achieve Sustainable Business Performance: Application of Technology–Organization–Environment Framework. *Sustainability*, *16*(5), 1864. doi.org

[5] Brynjolfsson, E., & McAfee, A. (2014). The second machine age: Work, progress, and prosperity in a time of brilliant technologies. W. W. Norton &Company.

[6] Bullock, A. (2022). Building an agile culture for digital transformation [Rapport sectoriel]. Digital Leadership Institute.

[7] Butcher, S., & Beridze, I. (2019). AI governance: Tools, frameworks and strategies for responsible AI. AI & Society, 34(3), 567–580.

[8] Brunner, P., & Schaeffer, V. (2023). The features of student entrepreneurs as leaders of social, environmental and sustainable entrepreneurial projects. Journal of Innovation Economics & Management, 43(1), 69-101. https://doi.org/10.3917/jie.pr1.0151

[9] Butt, T., Khan, S., & Ahmad, M. (2024). Cultivating digital culture for successful transformation: Evidence from multinational corporations. Technological Forecasting and Social Change, 192, 122336. https://doi.org/10.1016/j.techfore.2023.122336

[10] Cathles, A., Nayyar, G., & Rückert, D. (2020). Digital technologies and firm performance: Evidence from Europe. European Investment Bank. http://www.jstor.org/stable/resrep52220

[11] Cortellazzo, L., Bruni, E., & Zampieri, R. (2019). Leadership 4.0: Digital leaders in the era of Industry 4.0. Journal of Business Research, 100, 366–380. https://doi.org/10.1016/j.jbusres.2018.12.065

[12] El Abed, A., & Bellaaj, M. (2025). Perception of the use of artificial intelligence by Tunisian leaders: Motivations, barriers, and perceived benefits. *Revue Française d'Economie et de Gestion*, 6(4), 540–565.

[13] Fadler, T., & Legner, C. (2021). Differentiating IT governance and data governance: Implications for organizational value creation. Journal of Strategic Information Systems, 30(2), 101648. https://doi.org/10.1016/j.jsis.2021.101648

[14] Fachrunnisa, O., Adhi, W. K., &Anwar, A. (2020). Digital leadership in the time of crisis: A literature review. Journal of Management Development, 39(6), 661–673. https://doi.org/10.1108/JMD-05-2020-0142

[15] Fitzgerald, M., Kruschwitz, N., Bonnet, D., & Welch, M. (2014). Embracing digital technology: A new strategic imperative. MIT Sloan Management Review, 55(2), 1–12.

[16] Fornell, C., & Larcker, D. F. (1981). Evaluating structural equation models with unobservable variables and measurement error. Journal of Marketing Research, 18(1), 39–50.

[17] Gong, C., & Ribiere, V. (2021). Developing a unified definition of digital transformation. The International Journal of Management Education, 19(1), 100447. https://doi.org/10.1016/j.ijme.2021.100447

[18] Hair, J. F., Hult, G. T. M., Ringle, C. M., & Sarstedt, M. (2019). A Primer on Partial Least Squares Structural Equation Modeling (PLS-SEM) (2nd ed.). Sage Publications.

[19] Huang, Y., Chen, L., & Wu, X. (2023). Digital leadership for organizational transformation: Conceptualization and scale development. Leadership &OrganizationDevelopment Journal, 44(5), 789–805. https://doi.org/10.1108/LODJ-05-2022-0203

[20] Kane, G. C., Phillips, A. N., Copulsky, J. R., & Andrus, G. R. (2019). The Technology Fallacy: How People Are the Real Key to Digital Transformation. MIT Press.

[21] Kazakov, S., Ruiz-Alba, J. L., & Muñoz, M. M. (2021). The impact of information and communication technology and internal market orientation blending on organisational performance in small and medium enterprises. European Journal of Management and Business Economics, 30(2), 129–151. https://doi.org/10.1108/EJMBE-04-2020-0068

[22] Khattabi, I., El Amili, O., & Tayeb, D. (2025). The integration of artificial intelligence and its impact on managers' emotional competencies: Toward a redefinition of leadership? Revue Internationale du Chercheur, 6(3), 591–615. ISSN 2726-5889. Retrievedfromhttps://www.revuechercheur.com

[23] Khoufi, O., &Mzid Ben Amar, I. (2024). Digital maturity levels and individual competencies required for middle managers: An exploratory analysis on a sample of Tunisian companies. African Management Review, 1(11), 1–24. http://revues.imist.ma/?journal=RAM

[24] Konopik, C., Schmidt, J., & Meyer, A. (2022). Leadership in digital transformation: Capabilities for the digital age. Journal of Business Research, 145, 115–128. https://doi.org/10.1016/j.jbusres.2022.01.030

ISSN: 2961-662X

[25] Malhotra, N., Nunan, D., &Birks, D. (2017). Marketing research: An applied approach. Pearson.
[26] Malodia, S., Mishra, M., Fait, M., Papa, A., & Dezi, L. (2023). To digit or to lead? Designing the digital transformation journey of SMEs among digital self-efficacy and professional leadership. *Journal of Business Research, 157*, 113547
[27] McCarthy, P., Sammon, D., & Alhassan, I. (2022). Digital transformation leadership characteristics: A literature analysis. *Journal of Decision Systems*, 32(1), 79–109. https://doi.org/10.1080/12460125.2021.1908934
[28] Mikalef, P., & Gupta, M. (2021). Artificial intelligence capability: Conceptualization, measurement calibration, and empirical study on its impact on organizational creativity and firm performance. Information & Management, 58(3), 103434. https://doi.org/10.1016/j.im.2021.103434
[29] Morris, M. G., Wu, E., & Urbach, N. (2014). The impact of digital transformation on organizational capabilities and performance. In Proceedings of the 47th Hawaii International Conference on System Sciences (pp. 5013–5022). IEEE. https://doi.org/10.1109/HICSS.2014.616
[30] Panetta, K. (2018, April 27). 4 steps for building a solid AI strategy. Gartner Blog Network. https://www.gartner.com/en/blog/building-ai-strategy
[31] Radoui, N., & Cherradi, L. (2025). Impact of digital transformation on organizational performance: From a systematic literature review to a conceptual framework. *Journal of Social Science and Organization Management, 6*(1)
[32] Rana, N. P., Pillai, R., Sivathanu, B., & Malik, N. (2024). Assessing the nexus of generative AI adoption, ethical considerations and organizational performance. Technovation, 135, 103064. https://doi.org/10.1016/j.technovation.2024.103064
[33] Ries, E. (2011). The lean startup: How today's entrepreneurs use continuous innovation to create radically successful businesses. Crown Business.
[34] Rodríguez, M., &Acedo, F. J. (2019). Organizational capabilities for digital transformation: A literature review and a research agenda. Journal of Business Research, 105, 1–12. https://doi.org/10.1016/j.jbusres.2019.07.029
[35] Salih, A. A., Alsalhi, L., & Abou-Moghli, A. (2024). Entrepreneurial orientation and digital transformation as drivers of high organizational performance: Evidence from Iraqi private banks. UncertainSupply Chain Management, 12(1), 9–18. https://doi.org/10.5267/j.uscm.2023.10.022
[36] Scafarto, V., Bresciani, S., & Ferraris, A. (2023). Digital culture as driver for AI adoption in organizations. Technological Forecasting and Social Change, 189, 122373. https://doi.org/10.1016/j.techfore.2023.122373
[37] Schwab, K. (2017). The Fourth Industrial Revolution. Crown Business.
[38] Senge, P. M. (1990). The fifth discipline: The art and practice of the learning organization. Doubleday.
[39] Tallon, P. P., Ramirez, R. V., & Short, J. E. (2013). The information artifact in IT governance: Toward a theory of information governance. Journal of management information systems, 30(3), 141-178.
[40] Tangniho, M. F., & Chanhoun, J. M. (2024). Artificial intelligence in service of management controllers in Beninese SMEs: Leveraging organizational performance and sustainability in Sub-Saharan Africa. Revue Internationale des Sciences de Gestion, 7(3), 705–730. https://www.revue-isg.com
[41] Teece, D. J. (2018). Business models and dynamic capabilities. Long Range Planning, 51(1), 40–49.
[42] Upadhyay, P., & Kumar, A. (2020). Digital culture and employee engagement in the age of AI. Journal of Organizational Change Management, 33(7), 1235–1252. https://doi.org/10.1108/JOCM-05-2020-0145
[43] Weritz, K., Schmidt, R., & Klein, S. (2020). Building a digital culture to support transformation initiatives. Journal of Enterprise Transformation, 10(3), 189–205. https://doi.org/10.1080/19488289.2020.1798712
[44] Westerman, G., Calméjane, C., Bonnet, D., Ferraris, P., & McAfee, A. (2011). Digital Transformation: A Roadmap for Billion-Dollar Organizations.
[45] Wiechmann, M., & Kastner, L. (2022). Digital leadership: A new leadership style for the digital age? In Proceedings of the 55th Hawaii International Conference on System Sciences (HICSS). https://doi.org/10.24251/HICSS.2022.123
[46] Zeriouh, N., & Hamidi, L. S. (2025). Managerial Innovation: The Role of New Technologies in Organizational Efficiency. HA

ISSN: 2961-662X