"Civil servants' readiness for AI adoption: The role of change management in Morocco's public sector"

| AUTHORS | Mohamed Barodi (iD) R Siham Lalaoui |

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Mohamed Barodi, Ph.D. Student,
Laboratory of Organizational
Management Sciences (LSGO),
National School of Business and
Management, Ibn Tofail University,
Kenitra, Morocco. (Corresponding
author)

Siham Lalaoui, Researcher-teacher,
Laboratory of Organizational
Management Sciences (LSGO),
National School of Business and
Management, Ibn Tofail University,
Kenitra, Morocco.

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Mohamed Barodi (Morocco), **Siham Lalaoui** (Morocco)

CIVIL SERVANTS' READINESS FOR AI ADOPTION: THE ROLE OF CHANGE MANAGEMENT IN MOROCCO'S PUBLIC SECTOR

Abstract

The rapid digital transformation of public systems has improved interactions between governments and citizens. In Morocco, while efforts to digitalize public administration continue, the integration of artificial intelligence presents new challenges due to structural and technical limitations. This study explores the openness of Moroccan civil servants to adopting artificial intelligence solutions and examines the role of change management in facilitating this process. A quantitative approach was employed, with 129 civil servants from key ministries – Education, Finance, and Health – completing an online questionnaire. These ministries were selected due to their critical importance in the public system and their frequent interactions with citizens. Furthermore, they played a central role in the National Administrative Reform Plan (2018–2022), which emphasized digital transformation as a key pillar in advancing e-government. The collected data were analyzed using SPSS, enabling a comprehensive analysis of the factors influencing AI adoption. The findings reveal that while younger civil servants are more open to AI, over 40% of respondents pointed to insufficient digital skills as a major barrier to artificial intelligence integration. The study underscores the importance of effective change management strategies, highlighting that strong leadership and clear communication are essential in promoting artificial intelligence receptiveness and ensuring seamless integration within Morocco's public sector.

Keywords	artificial intelligence, digital literacy, public management, organizational behavior, change management
JEL Classification	H83, O33

INTRODUCTION

In an era characterized by rapid technological advancements, public sectors are facing increasing pressure to modernize their structures and management methods to meet the evolving expectations of citizens (Wirtz et al., 2019). As a result, governments are persistently striving to make their administrations more effective and better equipped to deliver high-quality services to citizen-users, who increasingly demand greater transparency, accessibility, and promptness in service provision (Shandryk et al., 2024). Digitization was seen as a critical path to achieving the goal of a modern administration, thanks to its role in making procedures less time-consuming and more adapted to citizens' needs. The era of AI, which is an extension of digitization, offers unprecedented opportunities for public administrations by guaranteeing a better experience for citizens when consulting public services (Kuziemski & Misuraca, 2020). However, integrating such transformative technologies is challenging, particularly in the context of public organizations often entrenched in traditional bureaucratic practices (Susar & Aquaro, 2019; Steinebach, 2023).

Morocco, like many other countries, has made significant efforts to digitalize its public administration, aiming to meet the growing de-

mands for more agile and transparent governance (Barodi & Lalaoui, 2023) However, the integration of artificial intelligence presents a unique set of challenges that complicates this progress (Salah et al., 2023). In fact, even if AI provides opportunities to improve efficiency and decision-making, the adoption process is complicated by existing structural and organizational weaknesses within Moroccan public administration (Essabbar et al., 2024). Considering the pivotal role that civil servants hold in implementing AI-driven reforms, it is essential to assess their openness and preparedness for AI adoption. Such an understanding is vital to the success of Morocco's broader digital transformation objectives, particularly within the framework of the National Administrative Reform Plan (2018–2022).

1. LITERATURE REVIEW

The digital transformation of public organizations has emerged as a critical focus area for enhancing the operational efficiency of public administrations worldwide (Canedo et al., 2020). This transformation consists mainly of moving toward fast services delivered via platforms that enable users to benefit from online services in a few minutes without having to move (Di Giulio & Vecchi, 2023). As governments worldwide have increasingly recognized the value of digitization in combating transparency issues and enhancing public trust, the process has reached a saturation point in many countries (Ponti et al., 2022).

Theoretically, digitization is the dematerialization of procedures, where information and communication technologies play a crucial role in converting data from paper to digital format, thereby streamlining administrative operations (Mammadli & Klivak, 2020; Haug et al., 2024). However, achieving successful digitization requires a well-defined digital policy that ensures the convergence of efforts across the different ministerial departments, guaranteeing consistency and coherence in implementing digital projects (Maniam, 2020).

In recent years, the advent of artificial intelligence has further amplified the potential of digital transformation (Gallego & Kurer, 2022). Governments are now exploring the integration of AI to enhance public service efficiency, leveraging advancements in deep learning and data processing technologies (Barodi & Lalaoui, 2023). AI solutions are particularly noted for their precision and ability to perform tasks with a level of accuracy that can sometimes surpass human capabilities (Pelse et al., 2021). The benefits of AI are not limited to improving service delivery but extend to influencing public policy formulation and internal management practices within public organizations (Van Noordt & Misuraca, 2022).

However, the Moroccan public administration faces significant challenges in embracing these technological advancements (Makkoudi et al., 2022). Despite efforts to accelerate digitalization, Morocco's progress has been hindered by structural and organizational deficiencies (Sadok, 2023). This lag is evident in international assessments, such as the UN's E-Government Survey 2022, which ranks Morocco 101st globally and 5th in Africa based on its e-government development index (UN, 2022). National reports have also highlighted substantial dissatisfaction with the current state of digital public services, underscoring the need for urgent reforms to realize the potential benefits of AI (Moroccan Agency for Digital Development, 2023).

To fully capitalize on AI, Morocco must address critical gaps in human skills and technological infrastructure (Oubibi et al., 2022). Policymakers must prioritize the development of digital skills among civil servants and invest in the necessary technological equipment, especially in remote regions where digital infrastructure is lacking (Nachit et al., 2021). Additionally, effective change management strategies are essential to overcoming the resistance to change that often accompanies large-scale organizational transformations (Allaoui & Benmoussa, 2020). Understanding the psychological underpinnings of resistance can help in devising communication policies that effectively engage stakeholders and foster a culture of innovation within the public sector (Fischer et al., 2023; Ashton-Sayers & Brunetto, 2024).

The adoption of AI in public institutions, particularly in developing countries such as Morocco, presents a unique set of challenges (Barodi & Lalaoui, 2023). The literature review from all disciplines has started to explore global perspectives on AI adoption in the public sector, focusing on

change management, employee performance, institutional barriers, and public sector modernization (Chen et al., 2023). These insights provide a comparative framework for understanding AI receptiveness among Moroccan civil servants (Barodi & Lalaoui, 2023). AI adoption in the public sector is a growing global trend driven by the desire to improve administrative efficiency and deliver better public services. Weerasinghe et al. (2022) highlight how AI can enhance performance in public sector services through change management practices that engage public actors and align organizational goals with technological capabilities. The results prove that employee performance often mediates the successful implementation of AI, indicating that the human factor plays a critical role in technology acceptance (Barodi et al., 2024).

Despite the potential benefits of AI, numerous challenges hinder its adoption in the public sector. One major obstacle is the resistance to change within bureaucratic institutions (Sun & Medaglia, 2019). (Alkayid et al., 2023) have identified entrenched norms, lack of resources, and low technical capacity as significant barriers to the implementation of AI in the Jordanian context. This resistance is often compounded by fears of job loss and skepticism about AI's reliability, particularly among older employees who may feel less comfortable with new technologies. The Moroccan case reflects this generational divide, where younger civil servants demonstrate higher receptiveness to AI compared to their older counterparts (Barodi & Lalaoui, 2022). Weerasinghe et al. (2022) discuss how change management strategies are essential for overcoming resistance to AI. Public organizations must invest in training and professional development to equip employees with digital skills. Moreover, fostering a culture of innovation and openness to change is critical for creating an environment where AI can thrive (Sandoval-Almazan & Millán-Vargas, 2023). The lack of such initiatives in many public sectors, including Morocco's, underscores the need for more structured and sustained efforts in change management (Newman et al., 2022).

The role of employees in AI adoption cannot be overstated. Engin and Treleaven (2019) found that AI implementation is more successful when employees are engaged and their performance is actively managed during the transition to digital services. This

is echoed by findings from Norway, where municipalities that prioritized digital literacy and training for their staff saw greater success in AI adoption (Mikhaylov et al., 2018). In contrast, underprepared staff or those resistant to change due to insufficient support often become bottlenecks in the process (Ashton-Sayers & Brunetto, 2024).

Successful AI adoption in the public sector requires more than just advanced technology. It demands a well-thought-out change management strategy to ensure that organizational structures, processes, and, most importantly, people are ready for the transition (Mir et al., 2020). By focusing on employee engagement, tailored training programs, and leadership support, organizations can manage the human aspects of AI integration, which are crucial for reducing resistance and increasing acceptance. AI initiatives must prioritize the human dimensions of change, such as reconfiguring job roles and fostering a supportive organizational culture (Alhashmi et al., 2019). It is important for leaders to communicate that AI will enhance rather than replace jobs, alleviating fears and increasing employee buy-in (Valle-Cruz et al., 2019). In addition, leadership plays a vital role in championing AI change efforts, and organizations should adopt iterative approaches, where constant feedback and adjustments keep the AI strategy aligned with organizational goals (Effendi & Pribadi, 2021). AI implementation in government also requires robust data governance and well-aligned organizational strategies (Andrews, 2019).

In addition to technical and organizational barriers, ethical concerns also play a role in shaping public attitudes toward AI. Data privacy, transparency, and accountability are major considerations when implementing AI in public administration (Kinder et al., 2023). Governments need to ensure that AI systems are transparent, fair, and accountable, especially when they are used to make decisions that impact citizens' lives (Alexiadou, 2024). These ethical concerns, while global in scope, are particularly pressing in developing countries like Morocco, where public trust in government institutions may already be fragile (Kshetri, 2020).

The future of AI in the public sector will depend not only on technological advancements but also on the ability of governments to address these ethical and operational challenges (Reis et al., 2019). A
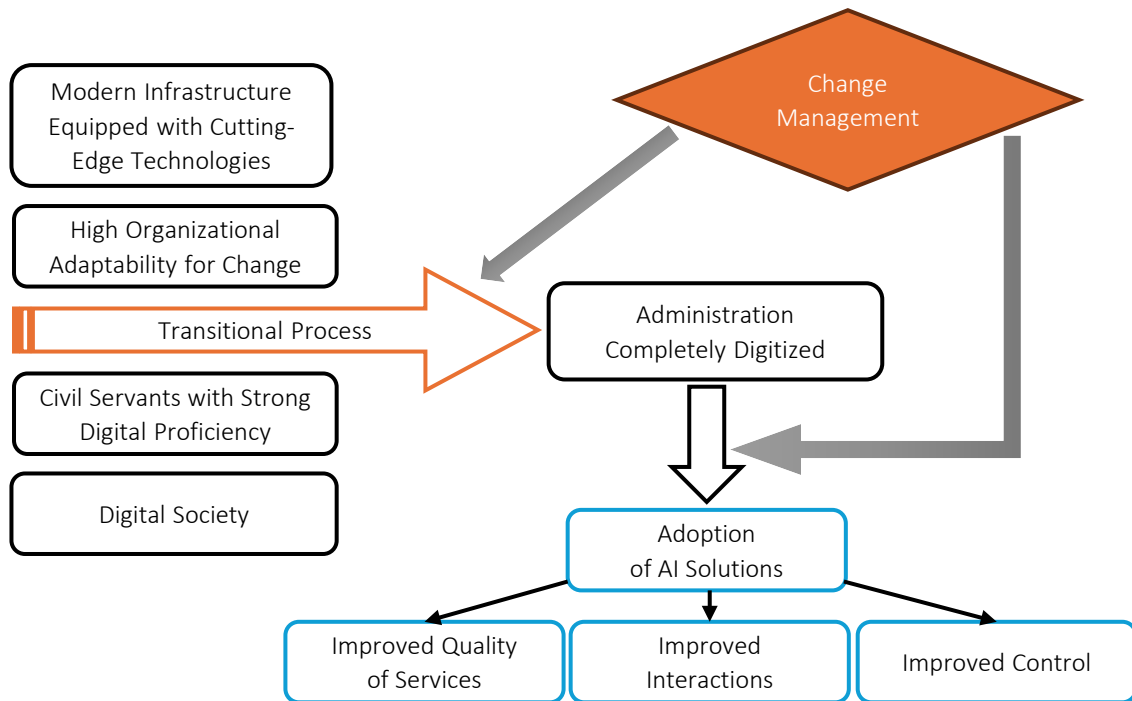
Figure 1. Factors responsible for a successful transitional process

strategic roadmap for AI adoption that includes ethical safeguards, public-private partnerships, and targeted employee training programs will be crucial for realizing the full potential of AI in public services (Alhashmi et al., 2019). While the integration of AI into Morocco's public administration presents significant opportunities, it also poses substantial challenges that require a strategic approach.

The scientific problem (Figure 1) this study seeks to address revolves around the readiness of civil servants to embrace AI solutions within their organizations. Specifically, it aims to explore the relationship between change management strategies and the willingness of public actors to adopt these new technologies. By investigating these dynamics, the study contributes to the broader discourse on digital transformation in the public sector, offering insights that could guide the development of effective strategies for overcoming resistance and facilitating the seamless adoption of artificial intelligence in public administration. The empirical study was guided by two key hypotheses:

H1: Effective change management strategies positively influence civil servants' openness to adopting AI.

H2: Higher proficiency in ICT skills increases civil servants' ability to support digitalization efforts and adopt AI.

To test these hypotheses, a quantitative research methodology was employed, involving a structured questionnaire distributed to a sample of civil servants across key ministries in Morocco.

2. METHODS

The study employs a quantitative approach, utilizing structured questionnaires to gather data from a diverse sample of civil servants working across various governmental and semi-public institutions. To meet the objectives, this paper focused on selecting civil servants from key ministries involved in Morocco's digitalization reforms. The sample comprised 129 civil servants from the Ministry of Education, Ministry of Finance, and Ministry of Health, which are highly significant sectors due to their frequent interaction with citizens and involvement in the National Administrative Reform Plan (2018–2022). This diverse sample included administrators, engineers, and technicians, allowing capturing a wide range of perspectives on the relevance of the tools used during the digita-

Table 1. Sample design

Department	Profile	Years of experience				
		0-5	10-15	15-20	5-10	More than 20 years
Ministry of Education	Administrator	8	4	3	2	6
	Engineer	9	1	3	3	1
	Technician	4	3	3	1	4
Ministry of Finance	Administrator	5	2	2	2	6
	Engineer	3	3	1	3	3
	Technician	2	2	4	2	2
Ministry of Health	Administrator	4	2	3	2	2
	Engineer	2	2	2	2	2
	Technician	3	1	2	1	2
Total		40	20	23	18	28

lization reforms and their views on the potential adoption of artificial intelligence solutions in the future (Table 1). Conducted between February 20 and March 5, 2023, the study aimed to assess civil servants' openness to AI adoption and evaluate the effectiveness of change management strategies in supporting this transition. Instead of focusing on hierarchical levels, the study prioritized diversity in roles and responsibilities to better understand their reactions to the changes and their views on the appropriateness of the adopted change management strategies.

A quantitative approach was opted by using a questionnaire spread among 129 respondents. The choice of the quantitative method was justified by the advantages that it offers, such as saving time and resources (Bakhtiyarovna, 2024), in addition to respecting anonymity (Savela, 2018). The questionnaire included three items structured as follows:

- Profile identification.

- Evaluation of the relevance of the change management strategy adopted during the latest digitalization reform.

- Evaluation of the degree of openness regarding the use of AI solutions in public administration.

3. RESULTS

3.1. Descriptive results

The data collected from the sample strongly supported the finding that civil servants in the Moroccan public administration are not familiar with information and communication technologies. According to these data, the most experienced people (more than 15 years of experience) find more difficulties for using ICT (highly uncomfortable/uncomfortable) by representing 25% of the entire sample (Table 2).

On the other hand, the vast majority of young respondents with experience ranging from 0 to 5 years expressed that they are highly comfortable with ICT. This represents an opportunity to be seized by decision-makers because these young people represent the future of the administration and can contribute to the realization of the objective of an e-administration capable of joining the era of artificial intelligence.

Table 3 shows that 35% of the respondents felt that the tools used to manage changes related to the reform of digitalization were irrelevant or highly irrelevant. This finding will negatively impact civil servants' confidence in the organizational capacity to meet the challenges associated with the transitional phase, which will automatically lead to the emergence of various forms of resistance justified by psychological obstacles resulting from old experiences of reforms.

Younger participants are more open to the use of artificial intelligence solutions, accounting for 45% of all responses (Table 4). On the other hand, the older participants are not interested in integrating this new technology, confirming that they are closed or highly closed (14% of all responses). This position is justified by their inability to use information and communication technologies easily and their incapacity to collect more information about this era.

Table 2. Level of familiarity with ICT

Years of experience	How would you rate your level of comfort in using information and communication technologies in your work?					Total
	Highly uncomfortable	Uncomfortable	Neutral	Comfortable	Highly comfortable	
0-5	0	2	3	16	19	40
5-10	0	0	3	9	6	18
10-15	0	2	4	10	4	20
15-20	4	8	4	5	2	23
More than 20 years	14	6	2	5	1	28
Total	18	18	16	45	32	129

Table 3. Appropriateness of the change management strategy

Years of experience	How would you rate the appropriateness of the change management strategy used to support you through the changes brought by digitalization?					Total
	Highly irrelevant	Irrelevant	Neutral	Relevant	Highly relevant	
0-5	4	9	11	13	3	40
5-10	0	0	7	11	0	18
10-15	2	2	3	12	1	20
15-20	2	10	5	6	0	23
More than 20 years	3	13	5	7	0	28
Total	11	34	31	49	4	129

This situation can be seen as advantageous and promising, as the young civil servants who will be taking part in the future changes are familiar with ICTs and can benefit from this era to improve the performance of their organizations.

According to 40.61% of respondents, the primary obstacle preventing civil servants from fully embracing digitization is their inability to effectively use information and communication technologies (Table 5). This deficiency in digital literacy is particularly pronounced among more experienced civil servants, who may not have had as much exposure to modern technologies throughout their careers. The lack of proficiency in ICT skills not only hampers their ability to perform tasks efficiently in a digital environment but also creates

resistance to further technological advancements, such as the adoption of artificial intelligence.

In addition to ICT proficiency issues, 23.26% of respondents identified organizational complexity as a significant barrier to the digitization process in Morocco. This complexity refers to the entrenched bureaucratic structures and processes that are often resistant to change. These structures can create a challenging environment for implementing new digital systems, as they require extensive coordination across various departments and levels of administration. The interplay between insufficient ICT skills and organizational complexity creates a formidable challenge for the Moroccan public sector, necessitating targeted interventions to simplify processes and enhance digital com-

Table 4. Level of openness for AI

Experience	Level of openness regarding the use of AI					Total
	Highly closed	Closed	Neutral	Open	Highly open	
0-5	0	1	7	18	14	40
5-10	0	4	4	4	6	18
10-15	1	6	5	5	3	20
15-20	3	5	11	3	1	23
More than 20 years	4	8	14	1	1	28
Total	8	24	41	31	25	129

petencies across the board. Addressing these obstacles is crucial for enabling the successful transition to a fully digital and AI-integrated public administration.

Table 5. Main obstacles to successful digital transformation

In your point of view, what are the main obstacles to a more advanced digital transformation in your department?		
	Frequency	**%**
Lack of available digital skills	64	49.6%
Organizational complexity	30	23.3%
Poor managerial leadership	20	15.5%
Structural rigidity	15	11.6%
Total	129	100%

3.2. SEM results

To validate hypotheses, structural equation modeling (SEM) was used in AMOS SPSS, a robust statistical technique that enables the examination of complex relationships between observed and latent variables. SEM analyzes how well the relevance of the change management strategy predicts the level of openness among civil servants to the AI integration reform. By collecting data through structured questionnaires and analyzing it with SEM, the model fit and the significance of the relationships between variables are assessed. This approach will provide a comprehensive understanding of the factors influencing civil servant openness and guide decision-makers in designing more effective change management strategies for future reforms.

Figure 2 shows modeling on SPSS and the following outputs: Chi-square (χ^2) = 11.880; Degrees of freedom (df) = 18; Probability level (p) = 0.853. The high p-value ($p > 0.05$) indicates a good fit, suggesting that the model fits the data well. Next, CMIN/DF = 0.660 (acceptable if < 3, excellent if < 2); GFI (Goodness of Fit Index) = 0.985 (values

Table 6. Variables chosen to apply SEM test

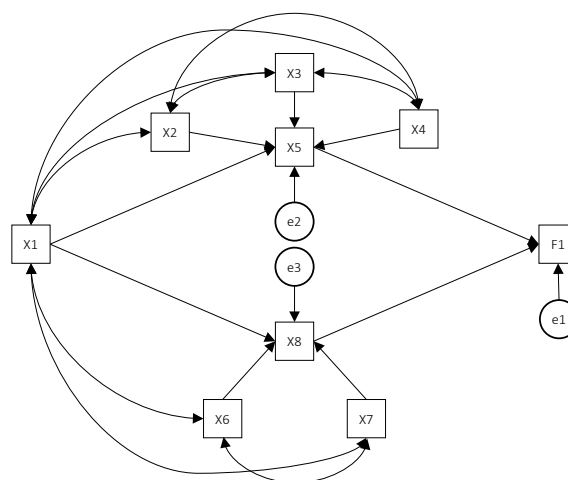| Independent variables about years of experience	Coding	Dependent variable	Coding
How many years of experience do you have?	X1	How would you rate your level of openness to the use of AI in Moroccan public administration in the future?	F1
Independent variables about the relevance of the change management strategy used during the last public reform (Hypothesis 1)	**Coding**		
How do you assess the relevance of the communications policy adopted?	X2		
What were the most used techniques to quell the forms of resistance?	X3		
How do you rate the leadership quality of decision-makers in the transitional phase?	X4		
How would you rate the relevance of the change management strategy used in the public digitalization reform?	X5		
Independent variables about the level of mastery of ICT tools (Hypothesis 2)	**Coding**		
How would you rate your level of mastery of ICT basics?	X6		
How do you assess your ERP skills?	X7		
How do you assess your overall digital skills?	X8		

Figure 2. Modeling on SPSS

close to 1 indicate a good fit); AGFI (Adjusted Goodness of Fit Index) = 0.963 (values close to 1 indicate a good fit); RMR (Root Mean Square Residual) = 0.021 (values closer to 0 indicate a good fit); RMSEA (Root Mean Square Error of Approximation) = 0.000 (values < 0.05 indicate a good fit); CFI (Comparative Fit Index) = 1.000 (values close to 1 indicate a good fit); NFI (Normed Fit Index) = 0.997 (values close to 1 indicate a good fit); TLI (Tucker-Lewis Index) = 1.003 (values close to 1 indicate a good fit).

High squared multiple correlations for X8, X5, and F1 (Table 6 and Table 7) indicate that the model explains a large proportion of the variance in these variables. Specifically:

- **X8 (Overall digital skills):** The high squared multiple correlation for X8 suggests that the model effectively captures the factors that contribute to civil servants' overall digital skills. This includes their experience (X1) and potentially other latent variables not explicitly modeled but inherent in the comprehensive change management strategy.

- **X5 (Relevance of change management strategy):** The high squared multiple correlation for X5 indicates that the factors influencing the perceived relevance of the change management strategy (such as communication policies (X2), resistance management techniques (X3), and leadership quality (X4)) are well-accounted for by the model.

- **F1 (Openness to AI):** The high squared multiple correlation for F1 demonstrates that the model explains a significant portion of the variance in civil servants' openness to AI. This includes the direct influence of the relevance of the change management strategy (X5) and the overall digital skills (X8).

The model fit indices indicate an excellent fit of the model to the data, which makes it possible to confirm the hypotheses.

4. DISCUSSION

The results have revealed a notable disparity between younger and older civil servants in terms of their openness to AI adoption. Younger civil servants, 0 to 5 years of experience, displayed significantly more openness to AI solutions compared to their older counterparts. This could be explained by their higher digital literacy and familiarity with information and communication technologies due to their exposure to technology early in their careers. Older civil servants, particularly those with over 15 years of experience, were more resistant to AI adoption, possibly due to a lack of digital skills and a greater comfort with established processes. Rogers' diffusion of innovation theory offers a useful framework here: younger civil servants can be viewed as 'early adopters' or 'early majority,' while older civil servants may fall into the 'late majority' or 'laggards' categories (Monga et al., 2024). This generational gap highlights the

Table 7. Squared multiple correlations

Variables	Estimate
X8	.958
X5	.962
F1	.930

Table 8. Validation of hypotheses: VIA regression weights and standardized regression weights

Hypothesis of the Study					Estimate	Standard Error	Critical Ratio	P-value	Information
H1	Indirect Effect	X5	←	X2	.205	.074	2.786	.005	Accepted and Significant
		X5	←	X3	.288	.071	4.087	.000	
		X5	←	X4	.214	.071	3.014	.003	
	Direct Effect	F1	←	X5	.613	.073	8.409	.000	Accepted and Significant
H2	Indirect Effect	X8	←	X6	−.042	.037	−1.129	.259	Accepted and Significant
		X8	←	X7	.079	.073	1.088	.277	
	Direct Effect	F1	←	X8	.412	.073	5.656	.000	Accepted and Significant

need for tailored change management strategies that focus on upskilling and reducing fears associated with technological obsolescence among older employees. Lastly, the study identified insufficient digital skills (49.6%) and organizational complexity (23.3%) as the most significant obstacles to successful digital transformation within Moroccan public administration.

These findings support existing theories on technological adoption and readiness, which suggest that familiarity and comfort with existing technologies are crucial for embracing new technological advancements like AI (Venkatesh & Davis, 2000). In addition, the dissatisfaction with change management strategies during prior digitalization efforts underscores the need for more tailored change management approaches that address diverse comfort levels with technology across different age groups. This misalignment between change management strategies and employee readiness could undermine confidence in future digital reforms, leading to organizational resistance, as has been documented in other studies on change management in public administration (Kuipers et al., 2014).

In the international context, several studies have shown that successful AI implementation in the public sector is heavily reliant on effective change management strategies. Weerasinghe et al. (2022) emphasized that employee engagement and the alignment of organizational goals with AI capabilities are critical for success. Morocco faces similar challenges, where the cultural and organizational readiness of civil servants varies significantly based on generational factors. This indicates a clear need for change management interventions that focus on bridging this digital literacy gap. As noted in studies from MENA region countries, training programs tailored to different skill levels and roles within the organization are key to reducing resistance and increasing AI acceptance.

Moreover, countries that have successfully adopted AI in the public sector have emphasized the importance of leadership involvement in driving change (Nuryadin et al., 2023). In Morocco, this can take the form of leadership-driven digital transformation programs that actively promote the benefits of AI adoption while addressing concerns related to job security, particularly among older employees. Similar to experiences in other countries, transparency and clear communication around the benefits of AI are essential to fostering a supportive environment for change.

The study's findings have several practical implications. Firstly, the demonstrated gap in digital literacy among older civil servants suggests an urgent need for targeted digital skill training initiatives. By enhancing the ICT capabilities of more experienced employees, public administration could reduce resistance to AI integration and enhance overall organizational efficiency. Additionally, the dissatisfaction with prior change management strategies implies that future reforms should incorporate more inclusive, adaptive approaches that resonate with employees across all experience levels. Adopting customized, age-sensitive change management practices could increase civil servants' confidence in and commitment to digital transformation efforts.

The Moroccan public sector must also address organizational barriers that may hinder AI adoption, such as bureaucratic resistance and the lack of digital infrastructure. Studies from other nations have shown that bureaucratic inertia can slow down the integration of AI technologies. In this context, Morocco needs to prioritize structural reforms and invest in digital infrastructure to support the effective deployment of AI tools. This is particularly relevant for addressing the needs of civil servants who are less familiar with digital technologies, as seen in the findings of this study. Additionally, ethical concerns around AI, such as data privacy and accountability, also emerged as significant barriers in international research. For Morocco, addressing these issues early in the AI adoption process is critical to building public trust and ensuring that AI-driven public services align with ethical standards.

Given the findings of this study, the Moroccan public sector would benefit from a multi-faceted approach to AI adoption, incorporating change management strategies that include leadership engagement, employee training, and efficient communication policy. A robust digital infrastructure and clear policies on data governance

and AI ethics must complement these efforts. In line with international best practices, Morocco should consider adopting a phased approach to AI implementation, focusing first on areas where the benefits of AI are most visible, such as automating routine administrative tasks. By building early successes, the government can create a model for further AI integration while simultaneously addressing resistance and preparing the workforce for more complex applications of AI in the future.

While this study offers valuable insights into the readiness of Moroccan public administration for AI integration, there are limitations that should be acknowledged. The sample may not fully represent all sectors within Moroccan public administration, limiting the generalizability of the findings. Future research could expand the sample to include a broader range of departments and conduct longitudinal studies to examine changes in digital readiness over time.

CONCLUSION

The study of AI receptiveness among Moroccan civil servants highlights both opportunities and challenges in integrating artificial intelligence into the public sector. Younger civil servants demonstrate greater openness to AI, emphasizing the importance of targeted training and change management. While AI has the potential to transform public service delivery in Morocco, its success depends on organizational readiness and employee engagement.

The findings align with global trends, where resistance to AI among older employees is a common challenge. Lessons from countries such as Jordan, Norway, and the United States suggest leadership involvement, transparent communication, and continuous training are critical for effective AI integration. For Morocco, similar strategies, tailored to its unique context, could bridge the digital literacy gap and foster innovation.

Policymakers should prioritize a change management framework that includes public-private partnerships, investment in digital infrastructure, and generationally targeted AI training programs. Future research should expand on these findings by including diverse regions and sectors to further explore AI's impact on public sector performance.

Morocco has a unique opportunity to lead AI-driven public sector reform in Africa and the MENA region. Embracing this transformation can enhance service delivery and position the country as a forward-thinking leader in the global digital landscape.

AUTHOR CONTRIBUTIONS

Conceptualization: Mohamed Barodi, Siham Lalaoui.
Data curation: Mohamed Barodi, Siham Lalaoui.
Formal analysis: Mohamed Barodi, Siham Lalaoui.
Investigation: Mohamed Barodi, Siham Lalaoui.
Methodology: Mohamed Barodi, Siham Lalaoui.
Resources: Mohamed Barodi, Siham Lalaoui.
Software: Mohamed Barodi, Siham Lalaoui.
Writing – original draft: Mohamed Barodi, Siham Lalaoui.
Writing – review & editing: Mohamed Barodi, Siham Lalaoui.

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