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Digitalization of governmental organizations: an empirical analysis of strategic aspects concerning human resources

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Abstract

The worldwide transition to the digitalization of governmental entities signifies an increasing dependence of individuals on technology. This study examines the influence of strategic resources such as data literacy, collaborative skills, and digital trust within government human resources on digital culture, preparedness, and comprehensive digitalization. Despite extensive research on digitization inside governmental entities, little focus has been directed towards the influence of human resource strategic variables in cultivating digital culture and preparedness. The analysis of data from 257 government employees utilizing seM-PIs underscores the significant influence of data literacy and digital trust on the formation of corporate digital culture. Furthermore, it determines that digital culture and preparedness substantially influence digitalization initiatives. These findings not only augment our comprehension of digitalization within government but also corroborate established technology adoption theories. The report provides a pragmatic methodology for assessing digitalization performance, assisting policymakers and leaders in managing the intricacies of digital transformation. It emphasizes the significance of investing in human capital and cultivating a conducive digital environment. Ultimately, these initiatives are essential for governments to efficiently leverage digital technology, enhance service delivery, and meet the changing requirements of residents in a progressively digital landscape.

Keywords: Digital Transformation; Government Organizations; Organizational Digitalization; Organization's Digital Culture

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1. Introduction

In recent decades, substantial changes in company models and competitive dynamics have transpired as a result of digital technology (Hautala-Kankaanpää, 2022; Seethamraju & Diatha, 2019). Organizations adopting these technologies guarantee continuity and relevance (Gupta et al., 2023), whereas governments diligently implement modern ICT methods to improve service delivery efficiency, effectiveness, and transparency (Alhadid

et al., 2022). They seek to enhance budget allocation, advance financial inclusion, and cultivate environmental sustainability initiatives (Sapraz & Han, 2024). There is a significant trend in the heightened engagement of citizens with e-government services, as evidenced by the worldwide average index increasing from 0.52 in 2016 to 0.66 in 2020 (United Nations [UN], 2020). Although more than 80% of nations adopted e-government policies by 2020 (iMD World Competitiveness Center, 2021), obstacles such as resource limitations, data security issues, and legislative difficulties impede digitalization initiatives in governmental sectors, resulting in discrepancies in execution. Human resources (H.R.) are essential in government digitalization, facilitating digital progress through technology implementation (Batara et al., 2017; Janita & Miranda, 2018). Nonetheless, attempts to enhance human resources' technological application frequently fail due to inadequate focus on the enabling elements necessary for greater involvement in digital transformation activities (Al Sayegh et al., 2023; Coscioni et al., 2023). This difficulty stems from Human Resources' necessity to adapt to digital technology and cultivate digital skills competences (Huub et al., 2017; Pablos & Tennyson, 2017; Rahman et al., 2018). Strategies for organizational digital transformation prioritize the incorporation of digitalization into comprehensive organizational frameworks (Plekhanov et al., 2023).

In governmental digitalization, a comprehensive strategy necessitates explicit objectives and action plans for human resource development and the deployment of digital technology, highlighting the changing role of human resources in facilitating digital transformation. Strategic human resources studies are essential for understanding the elements that affect digitalization initiatives inside governmental enterprises. These research employing frameworks such as the Technology Acceptance Model (Alhadid et al., 2022; Fakhruzzaman & Dimitrova, 2020; Najib & Fahma, 2020; Nasri, 2019) and the Unified Theory of Acceptance and Use of Technology (Al-Swidi & Faaeq, 2019; Almaiah & Nasereddin, 2020; Mensah, 2020) have investigated human resource-related variables in digitalization. Nevertheless, research examining human resource strategic variables, particularly their influence on cultivating digital culture and preparedness inside governmental entities, is scarce. This study examines the influence of human resource strategic elements, including data literacy, collaborative skills, and digital trust, on digitalization outcomes.

This study, informed by the idea of learning organizations (Senge, 1990), underscores the significance of shared values in facilitating a transformative process rooted in collective knowledge, attitudes, and behaviors that influence the organizational learning culture. The study indicates that data literacy, collaborative abilities, and digital trust are essential elements that influence organizational digital culture, hence affecting organizational digital readiness and governmental digitalization initiatives. Data literacy skills, crucial in several domains, encompass the analysis of quantitative and qualitative data to facilitate evidence-based decision-making (Cui et al., 2023). Digital collaboration skills improve teamwork and productivity through the use of digital technology and collaborative tools to attain shared objectives (Martínez-cerdá et al., 2018; Siahaan et al., 2020).

Furthermore, faith in digital systems, referred to as digital trust, is essential for facilitating transformative initiatives within governmental institutions (Marcial & Launer, 2019), thereby creating an atmosphere favorable to digital transformation. These resource variables are crucial in influencing digital organizational culture, synchronizing organizational elements using digital technology to improve performance while preserving established values, norms, and practices (Teguh et al., 2022a; Zhen et al., 2021). Digital transformation enhances organizational efficiency while preserving core values and identity (Serpa et al., 2022). Consequently, the research seeks to analyze the influence of human resource strategic determinants on the digitization of governmental organizations. This endeavor substantially enhances strategic management studies by

offering novel insights into human resource contextual aspects in digital transformation, organizational digitalization, and governmental organizational management. The study comprises five sections: the first delineates the background; the second provides a thorough literature review, establishing the theoretical framework; the third details the methodology and procedures; the fourth elaborates on the research findings; and the fifth articulates the conclusions and implications derived from the results.

2. Material & Method

Due to the vital role of data in resolving difficulties and building trust, H.R.'s expertise in understanding and evaluating data, referred to as data literacy, is indispensable (Ridsdale et al., 2015). It entails the collection, management, evaluation, and use of data, incorporating abilities such as searching, comprehending, creating, and communicating data, formulating pertinent questions, and extracting insights through data visualization (Hannigan et al., 2023; Sabbati, 2022). It also entails converting data into usable insights through the processes of acquiring, assessing, maintaining, and ethically employing data (Koltay, 2017). Data literacy encompasses the capacity of individuals and organizations to derive insights from data, comprehend analytical methodologies, employ analytical services, and amalgamate organizational data sources (Smolnikova, 2020). Data literacy is fundamentally represented in human resources' essential skills in literacy, numeracy, and inference (Cui et al., 2023).

Prior study underscores the transformative capacity of data literacy in the generation and exchange of organizational information, suggesting that the digital literacy proficiency of human resources can influence the overarching digital culture within an organization (Kozanoglu & Abedin, 2021). Human Resources, possessing strong digital literacy, is more capable of utilizing digital tools and technologies, hence promoting a digitally proficient organizational culture. Furthermore, research by Setyawan et al. (2022) illustrates that digital literacy, in conjunction with organizational support, affects self-efficacy, suggesting that a conducive organizational environment, paired with digital literacy competencies, can bolster individuals' confidence in the proficient use of digital tools and resources. These findings underscore the critical importance of organizational characteristics alongside digital literacy in influencing organizational culture.

Development of hypothesis:

H1: Data literacy significantly impacts an organization's digital culture.

Collaborative skills comprise qualities that enable efficient teamwork towards common goals. Valtonen et al. (2017) underscore the importance of ICT skills in collaborative efforts, accentuating technology's function in enhancing collaboration. Collaborative problem-solving play is a complex skill set encompassing social and cognitive aspects. Ariyanto et al. (2019) describe collaborative abilities as the ability to resolve issues or complete tasks in a group context, highlighting its cooperative essence. (Ngang et al., 2015) define collaboration and teamwork as the capacity to identify shared interests and work together to address obstacles, emphasizing the interpersonal dimension of collaborative competencies. Furthermore, Gerardi (2004) contends that cultivating collaborative work connections is essential for effectively managing conflict in complicated situations. In digital organizational cultures, Shen et al. (2022) propose that there is a focus on sharing, which facilitates the explicit expression of tacit knowledge. Baral et al. (2023) identified cooperation as a crucial factor in enhancing firm performance, demonstrating that a collaborative organizational culture favorably influences outcomes. Miao et al. (2023) emphasize the significance of organizational social networks in facilitating collaborative creativity, with digital tools augmenting cooperation. Finally, Agrawal et al. (2019) address managerial implications for surmounting obstacles in digital transformation, suggesting that cultivating collaborative skills among employees

facilitates effective navigation of digital transitions. Collaborative abilities are considered to influence digital organizational culture by promoting collaboration, innovation, and performance. Organizations that prioritize and develop these skills within their workforce are more likely to foster a culture of digital collaboration, hence improving organizational effectiveness and agility in the digital era.

Development of hypothesis:

H2: Collaborative skills significantly impact an organization's digital culture.

Digital trust is an essential theoretical construct garnering much focus owing to the pervasive integration of digital technologies in everyday life. It signifies individuals' trust in the reliability, security, privacy, and related systems and services of digital technology (Pietrzak & Josu, 2021). Digital trust includes stakeholders' confidence in the capacity of entities, technology, and procedures to create and sustain safe and reliable interactions (Mubarak & Petraite, 2020).

Digital trust is essential in cultivating organizational digital culture by fostering reliability, security, and confidence in digital interactions (Zhghenti & Chkareuli, 2021). Kantika et al. (2022) underscore the significance of trust in the adoption of digital banking services, identifying it as the most pivotal aspect in this process. H. Wang et al. (2023) elaborate on how understanding the determinants of trust can lead to the creation of more resilient systems, emphasizing trust's critical significance in influencing digital interactions and experiences. Digital trust serves as the foundation for facilitating effective collaboration, innovation, and digital transformation within enterprises, hence influencing the overall digital culture and environment.

Development hypothesis:

H3: digital trust exerts a significant influence on an organization's digital culture

Digital Organizational Culture (DOc) includes organizational frameworks, collective values, and beliefs on the utilization of digital resources to generate value (Hadi & Baskaran, 2021; Teguh et al., 2022a). It incorporates digital tools and technologies into operations, rendering them essential to the organization's mission (Zhen et al., 2021). This entails the implementation of policies that promote the exploitation of digital resources and encourage innovation and experimentation with digital technology. DOc is influenced by both real resources, such as networks, and intangible resources, including the digital competencies of human resources (Kocak & Pawlowski, 2022).

DOc seeks to enhance organizational success and stakeholder value through the effective application of digital technology and ongoing learning (t. Wang et al., 2022; Zhen et al., 2021). A strong digital organizational culture enables firms to address difficulties, improve digital preparedness, and achieve success in digitalization initiatives. DOc substantially impacts digital preparedness (Jun et al., 2022). Furthermore, Aboobaker and K.A. (2019) underscore the influence of personal and organizational elements, such as leadership style and culture, on preparation for change, accentuating the significance of digital culture in promoting preparedness for digital transformation.

Furthermore, Xie et al. (2023) illustrated that organizational preparedness for digital innovation influences digital business model innovation, especially inside family enterprises, emphasizing the critical importance of organizational culture. Furthermore, Saputra and Saputra (2020) underscored the significant importance of corporate culture and leadership on digital competency, suggesting that organizational culture affects the adoption of new technologies and concepts. Factors include leadership, innovation culture, and organizational learning within digital organizational culture profoundly influence digital readiness. The Competing Values Framework posits that organizational culture serves as a significant framework for fostering innovation (Büschgens et al., 2013). Furthermore, Ehnold et al. (2020) emphasized the significance of organizational culture in

the digitalization initiatives of sports clubs, indicating its impact on the adoption and application of digital tools. Furthermore, Teguh et al. (2022b) examined the attributes of digital organizational culture following COVID-19, emphasizing the influence of digitalization on organizational culture and transformation processes.

Development of hypothesis:

H4: digital organizational culture has a significant influence on digital organizational readiness

H5: digital organizational culture has a significant influence on organizational digitalization

Digital preparedness entails the proficient application of emerging technologies to facilitate advancement at multiple tiers, ranging from individuals to nations (Alzhanova et al., 2020). It involves the incorporation of digital technology into operations to improve efficiency and adaptability (Sánchez & Zuntini, 2019). This preparedness signifies an organization's position regarding digital technology and its capacity to adjust to the dynamics of digital deployment (Ashari Nasution et al., 2021). Evidence indicates that an organization's digital readiness is positively correlated with the successful implementation of organizational change, including digitalization procedures (Alghababsheh & Gallear, 2021).

Organizational digital readiness is essential for facilitating digitalization by equipping the organization for transformation and cultivating a culture that endorses digital activities (Warner & Wäger, 2019). Strategic preparation is crucial for successfully navigating the digital era (Schwarz Müller et al., 2018). Furthermore, Aboobaker and Ka (2021) emphasize that readiness is a crucial determinant of innovative outcomes in higher education, while Ruel et al. (2021) illustrate how readiness affects the formulation and execution of digital strategies within organizations, influenced by contextual elements such as strategic alignment and organizational change readiness, thereby demonstrating the role of readiness in shaping digital strategy development and implementation within organizations.

Development of hypothesis:

H6: digital organizational readiness has a significant influence on organizational digitalization

Based on the explanation of the hypothesis development above, a research model is proposed, as presented in Figure 1.

This research employs a quantitative methodology (Creswell & Creswell, 2018) to examine the phenomena of digitalization in governmental organizations, concentrating on the constructs of digital organizational preparedness and culture. The research variables were operationalized into indicator questions and disseminated online in Indonesia from June to December 2023, yielding a total of 257 respondents. The sample size, acquired via convenience sampling, above the minimum threshold suggested by Hair et al. (2017), hence affirming the study's robustness despite ambiguities around the degree of digitization across Indonesian government entities.

Prior to data collection, the researchers obtained approval from the Research Ethics Committee at Universitas Pendidikan Indonesia to guarantee ethical compliance and adherence to ethical standards. Informed consent statements were sent to prospective participants as a fundamental component of the questionnaire distribution process. Participation in the study was limited to individuals who consented and provided written informed consent electronically. This consent was provided in the initial section of the questionnaire, accompanied by a notification that all obtained data would be utilized exclusively for research purposes. Respondents were subsequently permitted to express their willingness to complete the questionnaire or their refusal. The questionnaire

comprises three sections. Initially, a filter question segment assesses respondents' eligibility according to their association with a digitally adopting governmental agency. Individuals that respond favorably advance to the following sections. Secondly, the responder profile section gathers demographic information, including age and tenure. Finally, the primary component consists of 20 questions evaluated on a Likert scale ranging from strongly. Strongly dissent to get consensus. All research measurement indicators were collected reflectively, designed by adopting and modifying the conceptual frameworks of prior studies. The data literacy variable items were inspired by Hannigan et al. (2023) and Sabbati (2022), collaborative skills by Ariyanto et al. (2019) and Valtonen et al. (2017), digital trust by Mubarak and Petraite (2020) and Pietrzak and Josu (2021), digital organizational culture by Hadi and Baskaran (2021) and Shen et al. (2022), digital organizational readiness by Aboobaker and Ka (2021), and organizational digitalization by T. Wang et al. (2022) and Zhen et al. (2021).

The data analysis employed the seM-PLs approach, considered appropriate for examining the intricate constructions in this work because of its adaptability and capacity to manage nonlinear interactions. The measurement model was initially evaluated using loading factors, composite reliability (c.R.), and average variance extracted (AVE) tests to ascertain validity and reliability. Subsequently, the structural model was analyzed to determine the impact of each variable as proposed. Common Method Bias (cMB) presents a considerable issue in research, especially when employing self-report techniques, since it may exaggerate correlations between variables due to potential response manipulation by respondents. To tackle this issue, our work utilizes diverse techniques to alleviate the impact of cMB. These tactics encompass guaranteeing respondent anonymity and confidentiality to promote candor.

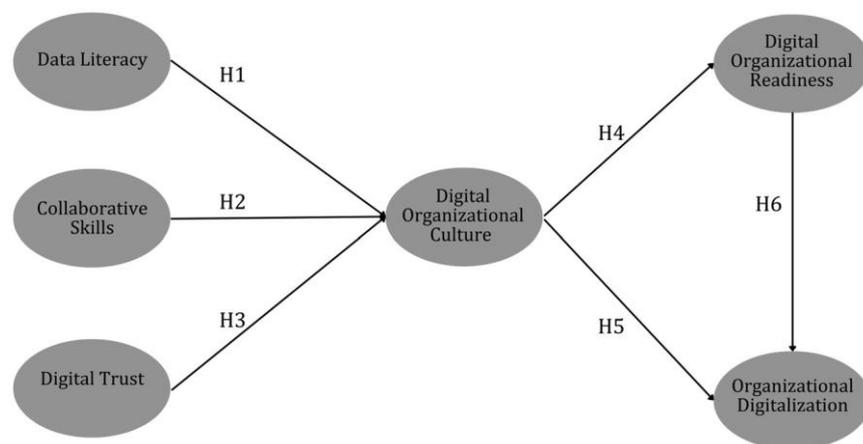


Figure 1. Proposed framework.

Responses should include clear and neutral instructions in survey instruments to elicit authentic feedback, the implementation of randomization techniques to reduce response bias, the use of validation measures such as social desirability scales and sensitivity checks, and the application of robust analytical techniques like structural equation modeling (SEM) to mitigate methodological bias. Through the implementation of these comprehensive strategies, we seek to improve the integrity and dependability of our research outcomes by adeptly tackling the issues related to the collection of self-report data.

3. Results

Respondent profile

The online poll yielded insights on the demographic characteristics of the respondents. Results demonstrate that 55% of respondents are aged 26–40, 28% are aged 41–55, and 17%

are aged 56–65. This distribution indicates a preeminent presence of millennials among the respondents, signifying a substantial degree of digital technology usage within this demographic. The bulk of respondents (79%) are from central government agencies, while 12% are from regional governments and 9% from non-ministerial entities. Concerning work roles, 40% of respondents have structural positions, whereas 60% hold functional roles within their businesses. The poll indicated that the majority (65%) of respondents employ digital technologies at work more than five times each month, followed by three to five times (16%) and one to three times (19%). This profile is unlikely to cause bias in data objectivity, given the Indonesian government enforces a standardized digital state financial management system across central, regional, and non-ministerial institutions.

Measurement framework

The preliminary testing phase concentrated on the measurement model, encompassing the computation of factor loadings for each construct. The loadings were evaluated against the Cronbach's alpha and composite reliability thresholds, established at >0.7 for robustness (Hair et al., 2019). The average variance extracted (AVE) values were assessed with a minimum threshold of 0.5 to ensure sufficient discriminant validity (Fornell & Larcker, 1981). The measuring model includes constructs of data literacy, collaborative skills, digital trust, digital organizational culture, digital organizational readiness, and organizational digitalization.

The results demonstrate that all loading factors exceeded the specified criterion of >0.7 for both Cronbach's alpha and composite reliability. Reliability, confirming the validity of the established indicators for model assessment. Moreover, discriminant validity, evidenced by the comparison of aVe values for each construct with those of others, satisfied the stated criteria. The findings are shown in Tables 1 and 2, offering a thorough summary of the model's validity.

The structural model is evaluated using two essential benchmarks: the importance of the route coefficient and the R² value (Hair et al., 2019). R² values are classified as follows: 0.75 signifies substantial, 0.50 denotes moderate, and 0.25 represents weak for all endogenous structures. The research findings demonstrate that the digital organizational culture (DOc) concept has an R² value of 0.74, categorizing it as considerable. Simultaneously, the digital organizational preparedness construct exhibits an R² of 0.561, while the organizational digitalization construct demonstrates an R² of 0.558, categorizing both constructs as moderate. The R² values indicate that alterations in the DOc structure may be accounted for up to 74% by the DI, c.s., and D.t. constructs, whilst variations in the DOR structure can be elucidated by 56.1% through the DI, c.s., D.t., and DOc constructions. The model suggested in this study, encompassing each concept, is suitable for assessing the link between variables. This study also assessed the prediction efficacy of the developed model. Analysis of the Q² computations for each model structure demonstrates that the framework exhibits predictive capability. The Q² values are as follows: Digital Organizational Culture is 0.545, Digital Organizational Readiness is 0.441, and Organizational Digitalization is 0.451.

Table 1. Reflective measurement model.

Measure	Factor loading	Cronbach alpha	CR	aVe
<i>Data Literacy</i>		0.886	0.929	0.814
1. able to understand the visualization of digital data as information.	0.901			
2. Continually evaluate how data is found.	0.905			

	Measure	Factor loading	Cronbach alpha	CR	aVe
	3. always use digital data support at work.	0.900			
	<i>Collaborative Skills</i>		0.857	0.903	0.701
	1. able to construct work with other workers.	0.846			
	2. able to complete work with a team despite being in different locations.	0.778			
	3. able to communicate ideas and compromise with different ideas.	0.849			
	4. Being able to operate digitally means working with a team.	0.872			
	<i>Digital Trust</i>		0.871	0.921	0.796
	1. the digital devices in my organization are reliable to use.	0.905			
	2. the digital devices in my organization can protect privacy and data.	0.901			
	3. trust that the digital devices in your organization provide the best support to get work done.	0.870			
	<i>Digital Organizational Culture</i>		0.884	0.920	0.741
	1. organizations adopt digital technology optimally.	0.875			
	2. organizations encourage the existence of digital work to measure their performance.	0.883			
	3. Co-workers have a solid motivation to build effective work systems through technology.	0.839			
	4. organizations realize that managing digital systems is a factor in work outcomes.	0.846			
	<i>Digital Organizational Readiness</i>		0.865	0.918	0.788
	1. organizations can adopt digital technology.	0.873			
	2. organizations are prepared to manage digital innovation challenges.	0.875			
	3. the organization has sufficient resources to work better with digital systems.	0.914			
	<i>Organizational Digitalization</i>		0.885	0.929	0.814
	1. Digital transformation in my organization is going well.	0.900			
	2. the digitalization of organizations has had an impact on improving work.	0.897			
	3. organizational performance has been of achieved with the support digitalization.	0.909			

Source: Researcher's processed data, 2023.

Table 2. Discriminant validity

	Cs	DL	DoC	DoR	Dt	oD
Cs	0.837					
DL	0.674	0.902				
DoC	0.602	0.682	0.861			
DoR	0.664	0.765	0.750	0.888		
Dt	0.632	0.692	0.852	0.764	0.892	
oD	0.614	0.653	0.643	0.737	0.673	0.902

Note: Cs: Collaborative skills; DL: Data Literacy; DoC: Digital organizational Culture; DoR: Digital organizational Readiness; Dt: Digital trust; oD: organization Digitalization.

Source: researcher’s processed data, 2023.

The subsequent phase was evaluating the direct impact among variables via a bootstrapping procedure. The calculated direct influence path coefficients of the examined variables are displayed in Table 3. The experimental results demonstrate that the predicted direct influence path coefficients of all variables are statistically significant in hypotheses h1, h3, h4, h5, and h6, with the exception of the impact of collaborative abilities on digital organizational culture (h2). The correlations among variables and their respective R² and Q² values are depicted in Figure 2.

4. Discussion

The proliferation of digitization in governmental entities has experienced extensive adoption in recent decades, propelled by customized strategies to optimize available resources. This global trend highlights the necessity for government entities to adjust to changing societal patterns and adopt engagement styles appropriate for the digital environment. In this context, our research examines the strategic function of human resources (H.R.) in government organizations, with a special emphasis on their digital competences.

The substantial influence of data literacy on digital organizational culture corresponds with the findings of Kozanoglu and Abedin (2021), who highlighted the importance of digital skills in cultivating a digitally proficient environment.

Table 3. Hypothesis testing

Path	β	t statistics	P Values	Decision
H1: Digital Literacy → Digital organizational Culture	0.158	3.146	0.002	accepted
H2: Collaborative skills → Digital organizational Culture	0.045	0.966	0.334	Rejected
H3: Digital trust -> Digital organizational Culture	0.714	16.408	0.000	accepted
H4: Digital organizational Culture → Digital organizational Readiness	0.750	25.767	0.000	accepted
H5: Digital organizational Culture → organizational Digitalization	0.206	2.429	0.015	accepted
H6: Digital organizational Readiness -> organizational Digitalization	0.582	8.716	0.000	accepted

note: p significant at 0.05.

Source: researcher's processed data, 2023.

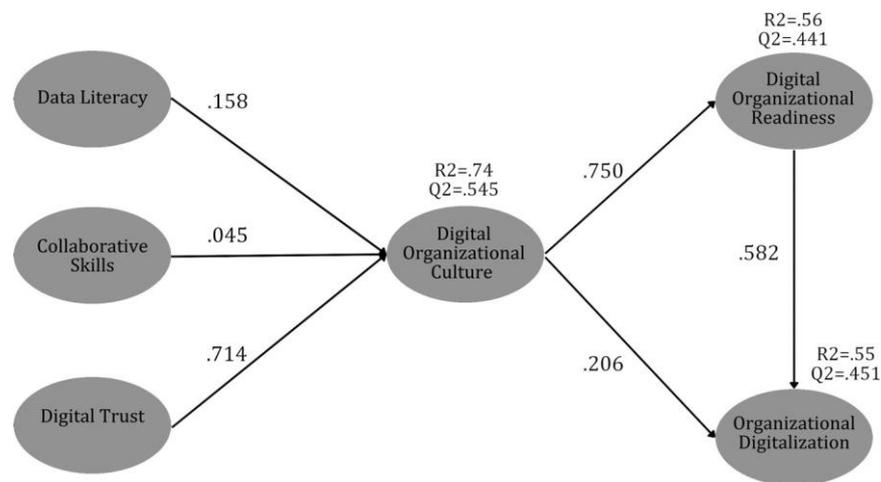


Figure 2. The result of proposed framework.

Our study, however, expands upon this by concentrating on government entities and emphasizing data literacy as an essential ability for enhancing decision-making. Specifically, H.R.'s capacity to analyze, understand, and use data within governmental contexts is essential for aligning organizational objectives with digital transformation initiatives. This is especially pertinent in enhancing decision-making precision and cultivating a culture that endorses evidence-based policy.

Digital trust has also become a crucial catalyst for digital organizational culture. This supports the conclusions of Mubarak and Petraite (2020), who emphasized the significance of trust in the adoption and utilization of digital technology. These results emphasize that dependable and secure digital platforms are crucial for cultivating a culture that promotes digital transformation. When employees regard digital technologies as dependable and secure, they are more inclined to interact with these systems, so enhancing the organizational digital culture.

The non-significant effect of collaborative abilities on digital culture contrasts with other studies (Agrawal et al., 2019; Miao et al., 2023), which emphasize cooperation as a catalyst for organizational performance. A potential explanation for this finding is that governmental organizations may continue to depend on conventional collaborative methods, so constraining the influence of digital technologies on cultural development. Conversely, this may suggest that although collaborative abilities are vital, their impact on digital culture may necessitate additional elements, such as sufficient infrastructure or leadership endorsement.

Furthermore, our findings underscore the complex relationship between digital organizational culture and preparedness. The values, norms, and daily practices related to digital systems in governmental organizational interactions enhance confidence, understanding, and adaptability, promoting a willingness to adopt technological innovation. This corresponds with previous research by Jun et al. (2022), which contended that an organization's cultural context substantially affects its preparedness for digital transformation. By cultivating a supportive digital culture, firms may bolster their employees' confidence in adopting and utilizing digital technology. The correlation between digital readiness and organizational digitalization is also substantial. Organizations that are willing to adopt digital innovation exhibit a greater probability of effectively executing digital transformation programs. This conclusion corroborates the assertions of Warner and Wäger (2019), who emphasize the significance of strategic preparation in managing digital transition. Furthermore, our research substantiates the

assertion by Ruel et al. (2021) that digital readiness is an essential catalyst for successful strategy execution in the realm of digital transformation. The suggested model offers a comprehensive framework for comprehending the interaction between human resource strategic elements and organizational digitalization. Future enhancements of this model may incorporate other contextual variables, such as policy support or infrastructure quality, to provide a more holistic understanding of digital transformation in governmental contexts.

Cross-national comparisons could further augment its generalizability. Longitudinal studies could investigate the dynamic progression of digital culture and preparedness while incorporating non-HR elements, such as financial resources and technology improvements, so offering a more comprehensive perspective on government digitization initiatives. This study enhances comprehension of the intersection between human resource dynamics and digital transformation initiatives by contextualizing these findings within the larger framework of digitalization in governmental agencies. These insights hold considerable significance for policymakers and organizational leaders confronting the intricacies of digitalization within governmental contexts. This study emphasizes the pivotal importance of human resources in influencing company culture and preparedness for the digital age. Furthermore, it presents evidence of the progression of the learning organizations theory (Senge, 1990) in relation to digital transformation in governmental entities.

5. Conclusions

This study theoretically provides insights into the internal human resource characteristics that influence the development of digital organizational culture, particularly in relation to enhancing organizational preparedness and digitalization in government entities. This research addresses the gap in literature regarding technology adoption in governmental contexts, frequently examined through theories such as TAM, UTAUT, and RBV, highlighting the strategic significance of human resource knowledge and skills in enabling technology adoption and transformation processes.

Nonetheless, it is crucial to recognize the constraints of this study. Firstly, it fails to assess concrete resource variables such as infrastructure quality, financial backing, and organizational policies, which may also significantly influence digital transformation initiatives. Furthermore, while this study is contingent upon human resource views, subsequent research should investigate non-human resource characteristics to achieve a thorough understanding of the topic.

This report offers insights into digital transformation strategies that government organizations may implement by enhancing data literacy within their human resources, primarily by prioritizing investments in HR development programs to elevate data literacy and digital competencies among officials. Secondly, the government must establish dependable digital systems and platforms to enhance organizational processes and cultivate a supportive digital work culture. Third, promoting digital collaboration tools can enhance efficiency and foster innovation. Moreover, fostering organizational preparedness for technological innovation via a culture of adaptation and perpetual learning is essential. Ultimately, synchronizing policies and strategies to bolster digitalization activities will enable efficient execution.

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