

Digital Maturity and Knowledge Assets as Drivers of Organizational Performance in the Palestinian Public Sector

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ABSTRACT

This study aimed to investigate the influence of digital maturity and knowledge assets on organizational performance in the Palestinian public sector, emphasizing the role of knowledge assets as a mediating mechanism through which digital transformation efforts translate into improved institutional outcomes. A quantitative approach was employed using a structured questionnaire distributed to employees across five key Palestinian ministries involved in public service delivery and digital governance. The target population consisted of (2517) employees, and a proportionate stratified random sample of (450) respondents was successfully collected and analyzed using SmartPLS. The results showed that digital maturity significantly enhances both knowledge assets and organizational performance, while knowledge assets independently contribute to improved service quality, operational efficiency, and adaptability. Moreover, the findings confirmed a significant mediation effect, indicating that technology-driven reform produces stronger performance outcomes when supported by knowledge sharing, accessibility, and application. The study recommends institutionalizing national digital governance frameworks, developing integrated knowledge ecosystems, embedding digital competencies in human resource systems, and establishing innovation-driven digital service units to strengthen digital transformation results in Palestinian ministries. The outcomes contribute to the growing understanding of how public organizations in developing contexts can strategically leverage digital capabilities and knowledge resources to enhance public value creation.

Keywords: Digital Maturity, Knowledge Assets, Organizational Performance, Palestinian Public Sector.

INTRODUCTION

Public sector institutions are increasingly confronted with sustained pressures to enhance service efficiency, accessibility, and quality through the systematic adoption of digital technologies. In response, digital transformation has emerged as a central pillar in national reform agendas, enabling governments to improve institutional performance, strengthen governance mechanisms, and respond more effectively to evolving societal needs (Ayodele et al., 2025). Within this context, the concept of digital maturity has gained prominence as a strategic indicator of the extent to which organizations are capable of integrating digital technologies into their structures, processes, and decision-making systems in a coherent and value-generating manner (Zakiuddin et al., 2024).

Digital maturity extends beyond the mere adoption of technological tools; it reflects a comprehensive organizational capability that encompasses strategic alignment, governance structures, human capital readiness, and process integration (Kol, 2025). Empirical evidence suggests that organizations with higher levels of digital maturity are better positioned to achieve sustainable performance improvements, as they are able to translate technological investments into operational efficiency, service innovation, and adaptive capacity (Geissler et al.,

2024). However, existing research also indicates that digital transformation outcomes are often uneven, particularly in public sector contexts where institutional fragmentation, cultural resistance, and resource constraints may limit the effectiveness of digital initiatives (Shahiduzzaman, 2025).

Parallel to the evolution of digital maturity, knowledge assets have been recognized as a critical intangible resource that underpins organizational performance. Knowledge assets refer to the collective expertise, institutional memory, information systems, and learning mechanisms that enable organizations to generate, share, and apply knowledge effectively (Suwayd et al., 2024). In public sector environments, where decision-making complexity and service delivery challenges are prevalent, the effective management of knowledge assets plays a central role in enhancing coordination, innovation, and responsiveness (Khalifa et al., 2025).

Recent studies increasingly highlight the interdependence between digital maturity and knowledge assets. Digital technologies facilitate the creation, storage, and dissemination of knowledge, while knowledge-based capabilities enable organizations to interpret and utilize digital resources effectively (Ferreira et al., 2024). This reciprocal relationship suggests that digital transformation alone is insufficient to drive performance unless it is complemented by robust knowledge management practices that support organizational learning and knowledge utilization (Zhang et al., 2025).

Despite the growing body of international literature, the relationship between digital maturity, knowledge assets, and organizational performance remains underexplored in developing and politically complex contexts. In the Palestinian public sector, this gap is particularly significant due to the unique structural constraints that shape institutional functioning. These include political instability, fiscal limitations, fragmented administrative mandates, and uneven technological infrastructure, all of which influence both the trajectory of digital transformation and the effectiveness of knowledge utilization processes. While prior studies in Palestine have examined knowledge management in project-based contexts, they have not addressed its integration with institutional digital transformation (Mousa et al., 2024). Similarly, evidence from other Arab contexts confirms the mediating role of knowledge management in performance relationships, yet these findings cannot be directly generalized to Palestine due to its distinct governance and socio-political environment (Khalifa et al., 2025).

Accordingly, this study seeks to address a critical empirical and theoretical gap by developing and testing an integrated framework that links digital maturity, knowledge assets, and organizational performance within the Palestinian public sector. Specifically, the study conceptualizes digital maturity as a strategic antecedent, knowledge assets as a mediating mechanism, and organizational performance as the outcome variable. By doing so, it advances the literature beyond simple relational validation toward a more explanatory model that captures the underlying mechanisms through which digital transformation influences institutional performance.

From a theoretical perspective, this research contributes by bridging two traditionally separate streams of literature—digital transformation and knowledge management—into a unified analytical framework. It extends existing models by explicitly incorporating knowledge assets as a mediating construct, thereby providing a more nuanced understanding of how digital capabilities are translated into performance outcomes. From a practical perspective, the study offers evidence-based insights for policymakers and public sector leaders in Palestine, enabling them to design more effective digital transformation strategies that integrate technological investments with knowledge-based capabilities under conditions of institutional constraint.

LITERATURE REVIEW

The increasing reliance on digital technologies in public sector institutions has led to the emergence of digital maturity as a central construct in understanding organizational transformation and performance outcomes. Digital maturity reflects the extent to which organizations strategically integrate digital technologies into their structures, processes, and decision-making systems to generate sustained value (Zakiuddin et al., 2024). Unlike basic digital adoption, which focuses on the implementation of technological tools, digital maturity captures a broader organizational capability that includes leadership alignment, process integration, and workforce readiness (Kol, 2025). This distinction is critical, as empirical evidence consistently shows that isolated technological investments do not necessarily translate into improved performance unless supported by institutional coherence and strategic alignment (Geissler et al., 2024).

In public sector contexts, digital maturity has been associated with enhanced service quality, operational efficiency, and adaptive capacity. Digitally mature organizations are better positioned to respond to complex administrative demands, improve transparency, and deliver citizen-centered services (Ayodele et al., 2025). However, the literature also indicates that the impact of digital maturity is not uniform across institutional environments. Structural constraints, including bureaucratic rigidity, resource limitations, and cultural resistance, often hinder the realization of digital transformation benefits (Shahiduzzaman, 2025). This suggests that digital maturity alone may not be sufficient to explain performance variations, thereby necessitating the examination of complementary organizational mechanisms.

One such mechanism is the effective management of knowledge assets, which has been widely recognized as a key driver of organizational performance. Knowledge assets encompass both explicit and tacit knowledge embedded within organizational systems, processes, and human capital, enabling institutions to enhance decision-making, innovation, and problem-solving capabilities (Suwayd et al., 2024). In public sector environments, where coordination and information flow are critical, knowledge management practices facilitate organizational learning and improve institutional responsiveness (Khalifa et al., 2025). Empirical studies demonstrate that organizations with strong knowledge-sharing cultures and structured knowledge systems achieve higher levels of efficiency and service effectiveness (Mousa et al., 2024).

Beyond their independent effects, recent research increasingly emphasizes the interdependent relationship between digital maturity and knowledge assets. Digital technologies serve as enablers of knowledge creation, storage, and dissemination, while knowledge assets determine the extent to which digital capabilities are effectively utilized within organizations (Ferreira et al., 2024). This reciprocal relationship highlights that digital transformation is not purely a technological process but also a knowledge-driven phenomenon. Organizations that invest in digital infrastructure without developing corresponding knowledge capabilities often fail to achieve meaningful performance improvements, as technological tools remain underutilized or poorly integrated into operational processes (Zhang et al., 2025).

This interaction is particularly relevant when examining organizational performance outcomes. While digital maturity provides the structural and technological foundation for transformation, knowledge assets act as a mediating mechanism that translates digital capabilities into tangible results. Empirical evidence supports this perspective, indicating that knowledge sharing and learning processes enhance the effectiveness of digital initiatives by facilitating innovation, reducing inefficiencies, and improving service delivery (Bux et al., 2025). Accordingly, the relationship between digital maturity and organizational performance is better understood as a mediated process rather than a direct linear effect.

Despite these theoretical and empirical advancements, the integration of digital maturity and knowledge assets within a unified analytical framework remains limited, particularly in developing and politically complex contexts. Most existing studies examine these constructs in isolation or focus on specific sectors without capturing their combined influence on organizational performance. In the Palestinian public sector, this gap is further amplified by contextual challenges, including political instability, fragmented governance structures, and constrained financial resources. These factors shape both the trajectory of digital transformation and the dynamics of knowledge utilization, making it essential to examine their interaction within this specific institutional environment.

Furthermore, prior research in Palestine has primarily addressed knowledge management in project-based or sector-specific settings, without linking it to broader digital transformation processes at the institutional level (Mousa et al., 2024). Similarly, regional studies conducted in other Arab countries highlight the importance of knowledge management as a mediator in performance relationships, yet their findings cannot be directly generalized due to contextual differences in governance and institutional capacity (Khalifa et al., 2025). This underscores the need for a context-sensitive model that captures the interplay between digital maturity, knowledge assets, and organizational performance within the Palestinian public sector.

Based on this synthesis, the present study proposes an integrated framework in which digital maturity serves as a strategic antecedent, knowledge assets function as a mediating mechanism, and organizational performance represents the outcome variable. This framework extends existing literature by explicitly modeling the indirect

pathways through which digital transformation influences performance, thereby providing a more comprehensive understanding of institutional effectiveness in complex governance environments.

Theoretical Framework

This study is grounded in an integrated theoretical perspective that combines the Resource-Based View (RBV), Dynamic Capabilities Theory (DCT), and the Knowledge-Based View (KBV) to explain how digital maturity and knowledge assets jointly influence organizational performance in the public sector.

The Resource-Based View posits that organizational performance is driven by the possession and effective utilization of valuable, rare, inimitable, and non-substitutable resources (Barney, 1991). Within this perspective, knowledge assets represent a critical class of intangible resources that enable organizations to achieve sustained performance advantages. In public sector contexts, knowledge assets such as institutional expertise, information systems, and organizational memory enhance decision-making quality, operational efficiency, and service delivery outcomes (Khalifa et al., 2025). However, RBV alone does not fully explain how such resources are developed, updated, and leveraged in rapidly changing environments, particularly those shaped by digital transformation.

To address this limitation, Dynamic Capabilities Theory provides a complementary lens by emphasizing the organizational ability to integrate, build, and reconfigure internal and external resources in response to environmental changes (Teece et al., 1997). Digital maturity can be conceptualized as a manifestation of dynamic capabilities, reflecting an organization's capacity to systematically adopt, integrate, and utilize digital technologies to enhance its operational and strategic processes. Organizations with higher levels of digital maturity are better equipped to sense technological opportunities, seize them through strategic alignment, and transform their internal processes accordingly. This positions digital maturity as a higher-order capability that enables continuous adaptation and performance improvement in complex institutional environments (Zakiuddin et al., 2024).

While Dynamic Capabilities Theory explains how organizations develop and deploy digital capabilities, the Knowledge-Based View extends this reasoning by highlighting knowledge as the most strategically significant resource within organizations. According to KBV, knowledge creation, sharing, and application are central mechanisms through which organizations generate value and achieve superior performance (Grant, 1996). In this context, knowledge assets act as operational enablers that translate broader organizational capabilities into actionable outcomes. This perspective is particularly relevant in public sector organizations, where effective knowledge flows are essential for coordination, policy implementation, and service delivery.

The integration of these theoretical perspectives provides a comprehensive explanation of the relationships examined in this study. Digital maturity, as conceptualized through Dynamic Capabilities Theory, represents the organization's ability to develop and deploy digital infrastructures and processes. However, the effectiveness of these capabilities depends on the presence of strong knowledge assets, as emphasized by the Knowledge-Based View. Digital systems facilitate access to information, but it is through knowledge sharing, storage, and application that this information is transformed into meaningful organizational actions. Consequently, knowledge assets function as a mediating mechanism that links digital maturity to organizational performance.

From an RBV perspective, organizational performance outcomes—such as service quality, operational efficiency, and innovation—are ultimately determined by how effectively resources and capabilities are utilized. Digital maturity provides the technological and structural foundation, while knowledge assets represent the intangible resource base that enables the organization to extract value from these capabilities. This theoretical integration suggests that digital transformation initiatives are unlikely to produce sustained performance improvements unless they are supported by well-developed knowledge management practices.

Accordingly, this study proposes that digital maturity has a direct positive effect on organizational performance, as well as an indirect effect through knowledge assets. The mediating role of knowledge assets reflects the process through which digital capabilities are operationalized within the organization, enabling the translation of technological investments into improved performance outcomes. This integrated framework not only aligns

with established theoretical perspectives but also extends them by empirically examining their interaction within the context of the Palestinian public sector, where institutional constraints and environmental uncertainty require both adaptive capabilities and effective knowledge utilization.

METHODOLOGY

Research design

The present study adopted the quantitative cross sectional survey methodology to determine the association between digital maturity and knowledge assets and the performance of the Palestinian public sector. The model was tested and direct and mediating effects were assessed with the help of structural equation modeling with the SmartPLS.

Population and sampling

The target population comprised of employees working in the key ministries in Palestine dealing with digital services, modernization of administration, and delivery of services to the population. These ministries had the central offices in Ramallah and other big cities in West Bank. An approach that involved proportionate stratified random sampling was adopted to have a balanced representation of ministries and job categories. Out of the total population (2517 employees) a final sample of 450 respondents was identified to be sufficient to undertake statistical analysis with SmartPLS4.

Table: Population Distribution and Proposed Sample Size

Ministry	Population	Sample Distribution
Ministry of Finance	536	96
Ministry of Health	721	129
Ministry of Telecommunications and Digital Governance	317	57
Ministry of Local Government	429	77
Ministry of Planning and Administrative Development	287	51
Total	2517	450

After calculating the population and sample distribution, demographic traits of the respondents were determined to have the right representation of various groups of employees within the sampled ministries. Demographic profile consisted of the gender, years of working experience, level of education because these variables were important to interpret the differences in digital maturity, knowledge assets, and perceptions of organizational performance among participants.

Table 2: Demographic Characteristics of the Respondents

Variable	Category	Frequency (n = 450)	Percentage (%)
Gender	Male	252	56.0
	Female	198	44.0
Total		450	100
Work Experience	Less than 5 years	132	29.3
	5–10 years	174	38.7
	More than 10 years	144	32.0
Total		450	100
Education Level	Diploma	54	12.0
	Bachelor's degree	291	64.7
	Postgraduate degree (Master/PhD)	105	23.3
Total		450	100

The respondents were evenly represented in terms of genders and managerial maturity levels. Most of them had a bachelor degree as well as five to ten years of experience demonstrating a professionally qualified workforce

with adequate exposure to modernization of administration efforts. This conformed to the quality of the sample in ensuring the representation of various operational views concerning digital maturity and the use of knowledge in the Palestinian public sector.

Instrument development

A structured questionnaire was used to collect the data and measure the constructs of digital maturity, knowledge assets and organizational performance. The scale was composed of closed ended statements which were rated on a five-point Likert scale with strongly disagree to strongly agree. Each construct was developed into three dimensions to guarantee a wholesome measure of the associated organizational capabilities and outcomes. Table 3 shows the variables and dimensional structure which informed development of items.

Table 3: Study Variables, Dimensions, and Supporting Citations

Variable	Dimensions	Supporting citations
Digital Maturity	Digital Strategy and Leadership Technology Infrastructure and Integration Digital Skills and Capability Development	(Zakiuddin et al., 2024; Kol, 2025; Shahiduzzaman, 2025)
Knowledge Assets / Knowledge Management	Knowledge Sharing and Collaboration Knowledge Storage and Accessibility Knowledge Application and Learning	(Mousa et al., 2024; Suwayd et al., 2024; Khalifa et al., 2025)
Organizational Performance	Service Quality and Citizen Satisfaction Operational Efficiency Innovation and Adaptability	(Geissler et al., 2024; Kol, 2025; Khalifa et al., 2025)

Reliability and validity

SmartPLS4 was used to test the measurement model before obtaining the estimation of the structural model. The issue of reliability was analyzed according to the internal consistency measures and loadings of indicators, whereas convergent and discriminant validity were tested according to the usual conditions of assessment. The common method bias was minimized by means of procedural and statistical controls. The tests were done in structural relationships, with mediation effects by bootstrapping with an adequate number of resamples to assure significance and precision of estimations.

Statistical analysis

Questionnaire Items Descriptive Analysis

In this section, the descriptive statistics of the questionnaire items addressing digital maturity, knowledge assets and organizational performance of Palestinian institutions of the public sector were provided. Table 4 shows the average and Standard deviation of all items used in the study instrument.

Table 4: Descriptive Statistics of Study Variables

#	Item	Mean	std. Dev
Digital Maturity			
Digital Strategy and Leadership			
A01	Our leadership effectively communicates a vision for digital transformation.	3.42	0.781
A02	Digital initiatives in our ministry are aligned with organizational goals.	3.31	0.814
A03	Decision making integrates digital priorities into planning processes.	3.18	0.842
A04	Leaders actively support the use of digital solutions in service delivery.	3.27	0.763
Technology Infrastructure and Integration			
A05	Our ministry has reliable and up to date digital systems and tools.	3.05	0.897
A06	Digital platforms in our ministry are integrated across different units.	2.91	0.865

A07	The technology we use enables automation of core administrative tasks.	3.22	0.746
A08	Our systems allow secure and efficient exchange of data.	3.36	0.728
Digital Skills and Capability Development			
A09	Employees have the skills required to use digital technologies effectively.	3.04	0.812
A10	Training programs are provided to improve employees' digital capabilities.	2.88	0.854
A11	Staff feel confident using newly introduced digital tools.	3.06	0.777
A12	Digital competencies are considered in employee development planning.	3.19	0.739
Knowledge Assets / Knowledge Management			
Knowledge Sharing and Collaboration			
B01	Employees openly exchange information and expertise with colleagues.	3.26	0.801
B02	Collaboration between departments supports problem solving and innovation.	3.18	0.832
B03	Knowledge sharing is encouraged as part of daily work processes.	3.34	0.765
B04	Digital tools are used to support the sharing of information.	3.29	0.784
Knowledge Storage and Accessibility			
B05	Important knowledge is documented and stored for future use.	3.46	0.721
B06	Employees can easily retrieve needed information using digital systems.	3.21	0.806
B07	Information is regularly updated to remain accurate and relevant.	3.17	0.789
B08	Our ministry maintains organized databases for institutional knowledge.	3.38	0.752
Knowledge Application and Learning			
B09	Employees apply shared knowledge to improve performance.	3.43	0.741
B10	Lessons learned from past projects are used in current activities.	3.25	0.776
B11	New ideas and solutions are adopted to enhance service quality.	3.36	0.758
B12	Continuous learning is supported through digital and collaborative practices.	3.31	0.769
Organizational Performance			
Service Quality and Citizen Satisfaction			
C01	Services are delivered in a timely and responsive manner.	3.37	0.734
C02	Citizens receive accurate information about required procedures.	3.41	0.722
C03	Digital channels improve citizens' access to public services.	3.86	0.693
C04	Feedback is used to enhance service quality.	3.28	0.755
Operational Efficiency			
C05	Digital tools reduce the time required to complete administrative tasks.	3.52	0.712
C06	Our ministry optimizes resources through effective digital practices.	3.23	0.781
C07	Automation helps reduce the number of operational errors.	3.45	0.729
C08	Work processes run smoothly due to the use of technology.	3.48	0.705
Innovation and Adaptability			
C09	The ministry adapts quickly to administrative and technological changes.	3.01	0.843
C10	Innovative ideas are encouraged to improve public sector services.	3.33	0.768
C11	Digital transformation enhances our ability to introduce new solutions.	3.54	0.737
C12	The ministry responds proactively to evolving citizen needs.	3.32	0.752

The findings in Table 4 show that the means of all the items were within the range of (2.880 to 3.860), which represents the moderate agreement among the respondents about the present state of digital maturity, knowledge management practices, and performance of their organization. All the values of standard deviation were below (1) which showed that the dispersion is not very large and that the responses of the participants are consistent. These results indicate that even though the surveyed ministries have already achieved advances in digital transformation and using knowledge, areas of improvement could be observed in enhancing strategic digital leadership, improving cross-unit integration of technology, and use more of the knowledge to generate higher performance outcomes.

Measurement Model

Figure 1 shows the measurement model of this study

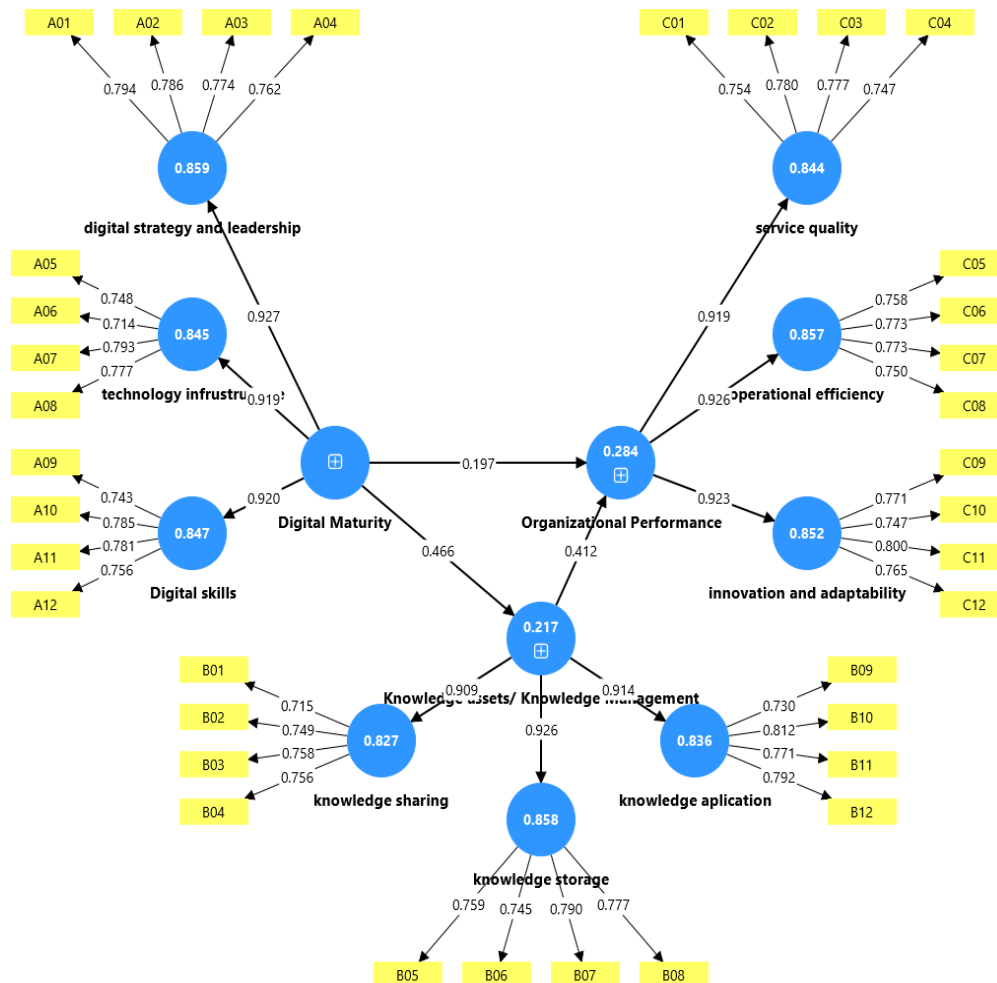


Figure 1: Measurement Model

Convergent Validity

Table 5: Convergent Validity

#	Item	Factor Loading	VIF	CR	AVE
Digital Maturity					
Digital Strategy and Leadership					
A01	Our leadership effectively communicates a vision for digital transformation.	0.794	2.034	0.909	0.609
A02	Digital initiatives in our ministry are aligned with organizational goals.	0.786	1.830		
A03	Decision making integrates digital priorities into planning processes.	0.774	1.682		
A04	Leaders actively support the use of digital solutions in service delivery.	0.762	1.718		
Technology Infrastructure and Integration					
A05	Our ministry has reliable and up to date digital systems and tools.	0.748	1.627	0.766	0.566
A06	Digital platforms in our ministry are integrated across different units.	0.714	1.577		
A07	The technology we use enables automation of core administrative tasks.	0.793	1.832		
A08	Our systems allow secure and efficient exchange of data.	0.777	1.829		

Digital Skills and Capability Development					
A09	Employees have the skills required to use digital technologies effectively.	0.743	1.644	0.766	0.754
A10	Training programs are provided to improve employees' digital capabilities.	0.785	1.798		
A11	Staff feel confident using newly introduced digital tools.	0.781	1.847		
A12	Digital competencies are considered in employee development planning.	0.756	1.641		
Knowledge Assets / Knowledge Management					
Knowledge Sharing and Collaboration					
B01	Employees openly exchange information and expertise with colleagues.	0.754	1.581	0.781	0.631
B02	Collaboration between departments supports problem solving and innovation.	0.780	1.677		
B03	Knowledge sharing is encouraged as part of daily work processes.	0.777	1.673		
B04	Digital tools are used to support the sharing of information.	0.747	1.668		
Knowledge Storage and Accessibility					
B05	Important knowledge is documented and stored for future use.	0.758	1.752	0.735	0.597
B06	Employees can easily retrieve needed information using digital systems.	0.773	1.651		
B07	Information is regularly updated to remain accurate and relevant.	0.773	1.804		
B08	Our ministry maintains organized databases for institutional knowledge.	0.750	1.805		
Knowledge Application and Learning					
B09	Employees apply shared knowledge to improve performance.	0.771	1.595	0.746	0.631
B10	Lessons learned from past projects are used in current activities.	0.747	2.016		
B11	New ideas and solutions are adopted to enhance service quality.	0.800	1.710		
B12	Continuous learning is supported through digital and collaborative practices.	0.765	1.790		
Organizational Performance					
Service Quality and Citizen Satisfaction					
C01	Services are delivered in a timely and responsive manner.	0.715	1.670	0.794	0.571
C02	Citizens receive accurate information about required procedures.	0.749	1.796		
C03	Digital channels improve citizens' access to public services.	0.758	1.720		
C04	Feedback is used to enhance service quality.	0.756	1.632		
Operational Efficiency					
C05	Digital tools reduce the time required to complete administrative tasks.	0.759	1.668	0.801	0.597
C06	Our ministry optimizes resources through effective digital practices.	0.745	1.760		
C07	Automation helps reduce the number of operational errors.	0.790	1.732		
C08	Work processes run smoothly due to the use of technology.	0.777	1.778		
Innovation and Adaptability					
C09	The ministry adapts quickly to administrative and technological changes.	0.730	1.717	0.823	0.517
C10	Innovative ideas are encouraged to improve public sector services.	0.812	1.678		
C11	Digital transformation enhances our ability to introduce new solutions.	0.771	2.013		
C12	The ministry responds proactively to evolving citizen needs.	0.792	1.651		

The findings show that there is good reliability and convergent validity of measurement model. The factor loadings were all greater than the reasonable level of 0.70 which implied that every item had a significant contribution to its own construct. The values of Variance Inflation Factor were less than 3.3 and this proved that there were no problems of multicollinearity. Besides, all Composite Reliability values were above 0.76 which

showed the internal consistency and the range of Average Variance Extracted was between 0.517 and 0.754 that proved the explanation of more than half of the variation in indicators by each construct. In general, these results indicate that the tool was therefore useful in measuring digital maturity, assets of knowledge as well as performance of the organization under the case of the study.

Discriminant Validity

To assess the discriminant validity of the measurement model, the Heterotrait-Monotrait ratio of correlations (HTMT) was used and the findings indicated that all HTMT values were lower than the generally agreed maximum value of 0.85, which showed that all the constructs were empirically distinct. This validates the fact that the conceptual domain of digital maturity, knowledge assets and organizational performance are not overlapping as they measure different things. Thus, discriminant validity was established completely, which justified the sufficiency of the construct structure of the model.

Structural Model

Figure 2 shows the structural model of the study

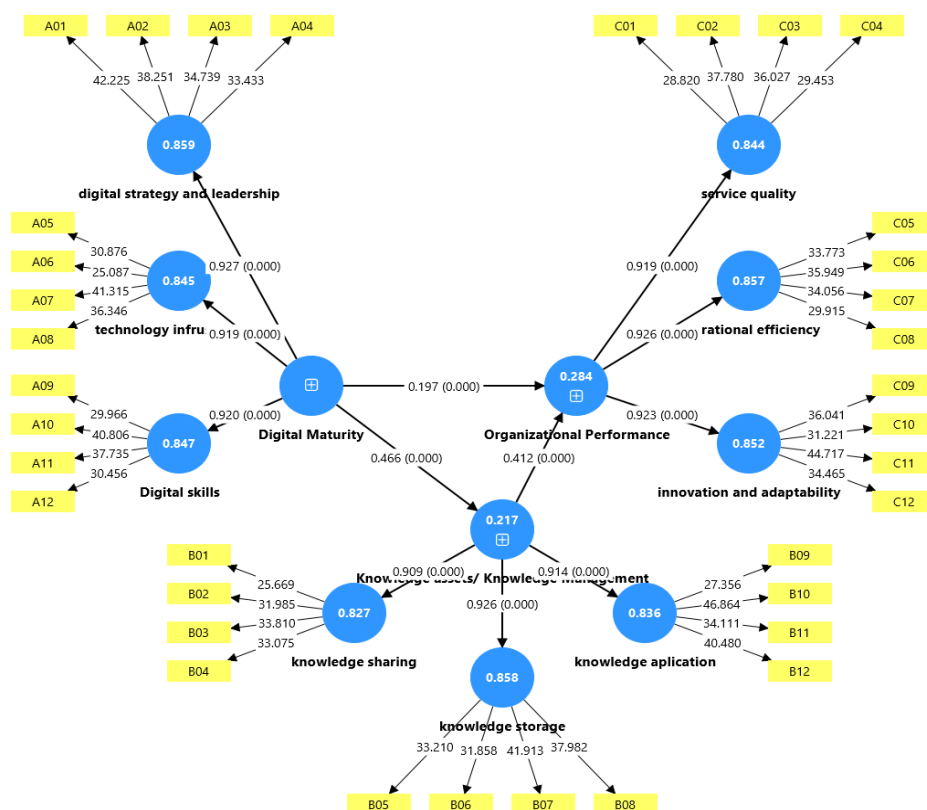


Figure 2: Structural Model

The structural model shows that Digital Maturity is a key predictor of both Organizational Performance and Knowledge Management in entities of the public sector. Digital Maturity, which consists of three dimensions (digital strategy and leadership, technology infrastructure, and digital skills) demonstrates the positive impact on Organizational Performance that is manifested in the quality of services, efficiency of operations, and innovation and adaptability. The model also shows that Knowledge Management which is composed of knowledge sharing, knowledge storage and knowledge application is greatly affected by Digital Maturity. Organizational Performance in turn can be improved by Knowledge Management, which implies that there is a mediating route through which improved digital capabilities can result in improved knowledge creation, sharing, and utilization that in turn can deliver better performance results. In general, the model highlights that digital transformation initiatives have indirect effects on performance since they not only improve performance directly but also indirectly through reinforcing the knowledge-related processes within institutions.

Path Coefficients

Table (6) presents the results of the structural model path analysis, including the path coefficients, statistical significance, and the mediation effect. All hypothesized relationships were tested using SmartPLS4, and the findings demonstrate strong and statistically significant effects among the study variables.

Table 6: Path Coefficients

	Original sample (O)	Sample mean (M)	Standard deviation (STDEV)	T statistics (O/STDEV)	P values
Digital Maturity -> Organizational Performance	0.197	0.197	0.045	4.378	0.000
Digital Maturity -> Knowledge assets/ Knowledge Management	0.466	0.466	0.037	12.516	0.000
Knowledge assets/ Knowledge Management -> Organizational Performance	0.412	0.411	0.045	9.206	0.000
Digital Maturity -> Knowledge assets/ Knowledge Management -> Organizational Performance	0.192	0.191	0.026	7.445	0.000

Hypothesis 1: Digital Maturity significantly influences Organizational Performance.

The findings have a beneficial path coefficient ($\beta = 0.197$, $t = 4.378$, $p < 0.001$), which suggests that the increased organizational performance is caused by greater digital maturity. This is in line with prior results that the digital development improves the quality of service and operation results in the work of public institutions, which substantiates the thesis that digital capability is a contributor to modernization in service delivery (Kol, 2025).

Hypothesis 2: Digital Maturity significantly influences Knowledge Assets / Knowledge Management.

The coefficient is strong and significant ($\beta = 0.466$, $t = 12.516$, $p < 0.001$), and indicates that increasingly mature digital environments are actively endorsed by knowledge creation, sharing, and availability. The outcome supports previous research that recognizes digital transformation as an agent of knowledge flow and teamwork within the context of public organizations (Mousa et al., 2024).

Hypothesis 3: Knowledge Assets / Knowledge Management significantly influences Organizational Performance.

The effect is significant ($\beta = 0.412$, $t = 9.206$, $p < 0.001$), which proves that the more efficiently knowledge is used, the more innovative and effective the results of its usage are in the services. This result is aligned with the fact that studies indicate that knowledge management enhances institutional performance and the performance of the public sector (Suwayd et al., 2024).

Hypothesis 4: Knowledge Assets / Knowledge Management mediates the relationship between Digital Maturity and Organizational Performance.

The indirect effect is significant and positive ($\beta = 0.192$, $t = 7.445$, $p < 0.001$), which means partial mediation. This implies that digital maturity has not only a positive impact on performance but also an indirect positive effect via enhancing the knowledge practices, which translate to better service delivery and innovation. This is in line with past theoretical claims that underpin that digital transformation is maximized with its effects on performance in the presence of robust knowledge processes and organizational learning (Khalifa et al., 2025).

DISCUSSION

The findings of this study provide robust evidence that digital maturity plays a central role in shaping organizational performance within the Palestinian public sector. However, rather than functioning as a purely technological driver, digital maturity operates as a dynamic organizational capability that enables institutions to reconfigure their processes, improve coordination, and enhance service delivery outcomes. This interpretation

aligns with Dynamic Capabilities Theory, which emphasizes the importance of an organization's ability to integrate and transform its resources in response to environmental demands. In this context, digitally mature ministries demonstrate a higher capacity to align technological investments with administrative objectives, thereby improving responsiveness and operational effectiveness.

Importantly, the results indicate that the impact of digital maturity on performance is not solely direct but also operates through knowledge-based mechanisms. The strong and significant effect of digital maturity on knowledge assets suggests that digital transformation facilitates the development of organizational knowledge infrastructures, enhances information accessibility, and supports collaborative work practices. From a theoretical perspective, this finding reinforces the argument that digital capabilities are enablers rather than outcomes, as their value depends on how effectively they are embedded within organizational knowledge systems. This supports the Knowledge-Based View, which positions knowledge as the primary mechanism through which organizational capabilities are translated into performance outcomes.

The significant relationship between knowledge assets and organizational performance further confirms that knowledge management is not a peripheral function but a core determinant of institutional effectiveness. Organizations that actively promote knowledge sharing, maintain structured knowledge repositories, and encourage continuous learning are better positioned to improve service quality, optimize resource utilization, and enhance innovation capacity. From an RBV perspective, knowledge assets represent a strategic intangible resource that contributes to sustained performance advantages, particularly in environments characterized by complexity and uncertainty.

The mediation analysis provides a more nuanced understanding of how digital transformation influences performance. The partial mediating role of knowledge assets indicates that while digital maturity has an independent effect on organizational outcomes, its impact is significantly amplified when supported by strong knowledge management practices. This finding highlights that digital transformation initiatives that focus primarily on infrastructure development without parallel investments in knowledge processes are likely to produce limited or unsustainable performance gains. In other words, technology alone does not create value; value emerges when technology is combined with effective knowledge utilization.

These findings are particularly relevant when interpreted within the Palestinian public sector context. Unlike more stable administrative environments, Palestinian institutions operate under conditions of political instability, fiscal constraints, and fragmented governance structures. These factors impose significant limitations on both digital transformation and knowledge management processes. For instance, resource constraints may restrict investments in advanced digital infrastructure, while administrative fragmentation may hinder cross-ministerial knowledge sharing. In such contexts, the effectiveness of digital maturity depends not only on technological capability but also on the institution's ability to develop adaptive knowledge practices that compensate for structural limitations.

Moreover, the findings suggest that digital transformation in the Palestinian public sector should not be approached as a purely technical reform but as an integrated organizational change process. The observed mediation effect implies that the success of digital initiatives depends on fostering a culture of knowledge sharing, enhancing employee competencies, and ensuring that digital systems are aligned with institutional learning processes. This is particularly important in environments where informal knowledge and experiential learning often play a critical role in overcoming administrative constraints.

From a comparative perspective, the results are consistent with international studies that emphasize the complementary relationship between digital capabilities and knowledge management. However, this study extends existing literature by demonstrating that this relationship is even more critical in resource-constrained and politically complex environments. In such contexts, knowledge assets serve as a compensatory mechanism that enhances the effectiveness of limited digital resources, enabling organizations to achieve performance improvements despite structural challenges.

Overall, the study contributes to a more comprehensive understanding of digital transformation in the public sector by highlighting the importance of integrating technological and knowledge-based capabilities. The

findings suggest that sustainable improvements in organizational performance require a balanced approach that combines digital maturity with strong knowledge management practices. This integrated perspective is particularly relevant for public sector institutions operating under conditions of uncertainty, where adaptability, learning, and resource optimization are essential for achieving long-term effectiveness.

RECOMMENDATIONS

Building on the empirical findings and theoretical insights of this study, the following recommendations are proposed to enhance digital transformation outcomes in the Palestinian public sector:

1. Adopt an integrated digital governance framework at the national level: Public institutions should move beyond fragmented digital initiatives by establishing a centralized governance model that ensures alignment between digital strategies, institutional objectives, and inter-ministerial coordination. This approach reflects a dynamic capabilities perspective, where coordinated transformation enhances institutional adaptability and long-term performance.
2. Institutionalize knowledge management as a strategic function: Rather than treating knowledge sharing as an informal or secondary activity, ministries should develop formal knowledge management systems that support documentation, accessibility, and continuous learning. Establishing centralized knowledge repositories and standardized knowledge processes will enable organizations to better leverage their intangible resources, consistent with the Resource-Based View.
3. Align digital transformation with human capital development: Digital maturity should be reinforced through systematic investment in employee capabilities, including continuous training, digital skill development, and knowledge-sharing competencies. Embedding digital and knowledge-related criteria into recruitment, promotion, and performance evaluation systems will ensure that technological transformation is supported by human capacity.
4. Promote a culture of knowledge-driven decision-making: Public sector leaders should encourage the use of data and institutional knowledge in decision-making processes by integrating digital analytics tools with knowledge-sharing practices. This will enhance organizational learning and improve responsiveness to citizen needs, particularly in complex and resource-constrained environments.
5. Develop cross-institutional collaboration mechanisms: Given the fragmented nature of public administration, establishing formal channels for inter-ministerial knowledge exchange and digital integration is essential. Collaborative platforms and joint task forces can facilitate the flow of information and reduce duplication of efforts, thereby improving overall system efficiency.
6. Prioritize scalable and adaptive digital solutions: In light of financial and political constraints, public institutions should focus on implementing flexible and scalable digital systems that can evolve over time. This approach enhances the organization's ability to reconfigure resources and respond to changing environmental conditions, in line with dynamic capabilities logic.
7. Integrate performance monitoring with digital and knowledge indicators: Performance evaluation systems should incorporate metrics related to digital maturity and knowledge utilization, enabling decision-makers to assess not only outcomes but also the underlying processes that drive organizational effectiveness. This will support more informed policy adjustments and continuous improvement.

LIMITATIONS OF THE STUDY

Despite the methodological rigor and theoretical grounding of this study, several limitations should be acknowledged. First, the study adopted a cross-sectional research design, which restricts the ability to draw causal inferences between digital maturity, knowledge assets, and organizational performance. While the structural model provides strong evidence of relationships and mediation effects, longitudinal data would offer deeper insights into how these relationships evolve over time, particularly in dynamic institutional environments.

Second, the study relied on self-reported data collected through a single survey instrument, which may introduce common method bias despite the procedural and statistical measures applied to mitigate it. Respondents' perceptions may not fully capture actual organizational practices, especially in contexts where formal systems and informal processes coexist.

Third, the empirical context of the study is limited to the Palestinian public sector, which is characterized by unique political, administrative, and economic conditions. While this context provides valuable insights into digital transformation under constraint, it may limit the generalizability of the findings to other institutional environments with different governance structures or resource availability.

Additionally, although the study integrates multiple theoretical perspectives, it focuses primarily on digital maturity and knowledge assets, without explicitly incorporating other potentially relevant variables such as organizational culture, leadership styles, or external environmental pressures. These factors may interact with digital and knowledge capabilities in shaping performance outcomes and warrant further investigation.

Finally, the measurement of constructs, while validated through established statistical procedures, remains perceptual in nature. Future studies could enhance robustness by incorporating objective performance indicators or mixed-method approaches to triangulate findings

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