



**THE EFFECT OF KNOWLEDGE MANAGEMENT ON DIGITAL
SERVICE PERFORMANCE THROUGH INNOVATION IN UAE
JUDICIARY SYSTEM**

جامعة ملاك التقنية

HAMAD AL KATHEERI

DOCTOR OF PHILOSOPHY

2025



Institute of Technology Management and Entrepreneurship

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اونیورسیتی تکنیکال ملیسیا ملاک

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**THE EFFECT OF KNOWLEDGE MANAGEMENT ON DIGITAL SERVICE
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HAMAD AL KATHEERI



A thesis submitted
in fulfillment of the requirements for the degree of
Doctor of Philosophy



جامعة ملاكا تكنولوجيا وريادة
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Institute of Technology Management and Entrepreneurship

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2025

DECLARATION

I declare that this thesis entitled “ The Effect of Knowledge Management on Digital Service Performance through Innovation in UAE Judiciary System” is the result of my own research except as cited in the references. The thesis has not been accepted for any degree and is not concurrently submitted in candidature of any other degree.

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APPROVAL

I hereby declare that I have read this thesis and in my opinion this thesis is sufficient in terms of scope and quality for the award of Doctor of Philosophy.

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Date : 14-10-2025

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DEDICATION

I dedicate this study to my family.



ABSTRACT

Effective digital service delivery is central to operational performance and citizen satisfaction in the public sector. This study examines how Knowledge Management (KM) processes influence Digital Service Performance (DSP) in the UAE judicial context and whether Innovation capability mediates this relationship. A cross-sectional survey of 332 employees from the Abu Dhabi Judicial Department (ADJD) was analysed using PLS-SEM (SmartPLS v3.2.8). The reflective measurement model met contemporary reliability and validity thresholds. Structural estimates show that KM processes have a positive direct effect on DSP ($\beta = 0.234$, $t = 2.685$, $p = 0.007$) and a strong positive effect on Innovation ($\beta = 0.523$, $t = 7.377$, $p < .001$). Innovation, in turn, positively affects DSP ($\beta = 0.516$, $t = 6.121$, $p < .001$). The indirect effect of KM on DSP via Innovation is positive and significant ($\beta = 0.270$, $t = 4.454$, $p < .001$), yielding a total effect of $\beta = 0.504$ ($t = 7.076$, $p < .001$) and VAF $\approx 54\%$, which indicates partial (complementary) mediation. These results advance a process-capability account of KM in public digital services: KM routines (acquisition, storage/retrieval, sharing/transfer, application) improve DSP directly and indirectly by building Innovation capability (quality and speed). Practically, the findings support a dual focus on professionalising KM routines and operating a disciplined, KPI-linked innovation pipeline to deliver measurable gains in judicial e-services.

اوینیفر سینتی تیکنیکل مالیسیا ملاکا

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**IMPAK PENGURUSAN PENGETAHUAN TERHADAP KEBERKESANAN
PERKHIDMATAN DIGITAL MELALUI INOVASI DALAM SISTEM
PERUNDANGAN EMIRIAN ARAB BERSATU**

ABSTRAK

Penyampaian perkhidmatan digital yang berkesan merupakan teras kepada prestasi operasi dan kepuasan warganegara dalam sektor awam. Kajian ini menilai bagaimana Proses Pengurusan Pengetahuan (Knowledge Management; KM) mempengaruhi Prestasi Perkhidmatan Digital (Digital Service Performance; DSP) dalam konteks kehakiman UAE serta sama ada Keupayaan Inovasi bertindak sebagai pengantara hubungan tersebut. Tinjauan keratan rentas melibatkan 332 kakitangan Abu Dhabi Judicial Department (ADJD) dianalisis menggunakan PLS-SEM (SmartPLS v3.2.8). Model pengukuran reflektif memenuhi ambang kebolehpercayaan dan kesahan semasa. Anggaran struktur menunjukkan KM memberi kesan langsung positif ke atas DSP ($\beta = 0.234$, $t = 2.685$, $p = 0.007$) dan kesan positif yang kuat ke atas Keupayaan Inovasi ($\beta = 0.523$, $t = 7.377$, $p < .001$). Keupayaan Inovasi seterusnya meningkatkan DSP ($\beta = 0.516$, $t = 6.121$, $p < .001$). Kesan tidak langsung KM terhadap DSP melalui Inovasi adalah positif dan signifikan ($\beta = 0.270$, $t = 4.454$, $p < .001$), menghasilkan kesan keseluruhan $\beta = 0.504$ ($t = 7.076$, $p < .001$) dengan $VAF \approx 54\%$, menandakan pengantaraan separa (complementary mediation). Dapatan ini memperkuuh akaun proses-keupayaan bagi KM dalam perkhidmatan digital awam: rutin KM (pemerolehan, penyimpanan/pengambilan, perkongsian/pemindahan dan aplikasi) meningkatkan DSP secara langsung dan secara tidak langsung dengan membina Keupayaan Inovasi (kualiti dan kepantasaran). Dari sudut amalan, penemuan menyokong tumpuan dwihala: memprofesionalkan rutin KM dan mengoperasikan saluran inovasi yang berdisiplin serta berpandukan KPI bagi menyampaikan peningkatan yang terukur dalam e-perkhidmatan kehakiman.

ACKNOWLEDGEMENT

In the Name of Allah, the Most Gracious, the Most Merciful.



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LIST OF ABBREVIATIONS

KBV	-Knowledge-Based View
UAE	-United Arab Emirates
ICT	-Information and Communication Technology
KM	-Knowledge Management
SECI	-Socialization, Externalization, Combination And Internalization
RBV	-Resource-Based View
VRIN	-Valuable, Rare, Inimitable, And Non-Substitutable
KAc	Knowledge Acquiring
KSt	Knowledge Storage
KS	Knowledge Sharing
KAp	Knowledge Application

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LIST OF SYMBOLS

R^2 - Coefficient of Determination

f^2 - Regression coefficient (path coefficient in SEM/PLS)
Effect Size



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LIST OF PUBLICATIONS

Hamad Al Katheeri and Norliah Kudus., 2024. Identification of Digital Innovation Service Performance Indicators Influencing UAE Judicial System. *Tropical Scientific Journal*, Volume 3, Issue 1.

Hamad Al Katheeri and Norliah Kudus., 2024. Effect of Innovation on the Relationship of Knowledge Management Process and Digital Service Performance in UAE Judicial System Model. *International Journal of Sustainable Construction Engineering and Technology*, Volume 15, Issue 1

CHAPTER 1

INTRODUCTION

1.1 Background

Across the world, technological innovation and knowledge-based strategies are transforming how governments design and deliver public services, enabling greater efficiency, transparency, and citizen satisfaction (Guenduez et al., 2025). In this era of digital governance, Digital Service Performance (DSP) has become a critical benchmark of institutional effectiveness, reflecting the ability of organizations to use technology to enhance service quality, responsiveness, and public trust (Alvarenga et al., 2020).

The United Arab Emirates (UAE) has embedded this transformation in its national vision and policy framework. The UAE “Digital Government Strategy 2025” and “We the UAE 2031” agenda emphasize smart governance, data-driven policy, and innovation as foundations of competitive and citizen-centric public administration (UAE Government, 2023). Within this ecosystem, judicial institutions such as the Abu Dhabi Judicial Department (ADJD) and the ADGM Courts have adopted end-to-end digital solutions, such as e-filing, virtual hearings, and paperless workflows, to improve accessibility and efficiency, advancing the broader goal of trustworthy and agile justice (OECD, 2024). Similar global initiatives, such as the Council of Europe’s CEPEJ Guidelines (2021), highlight how judicial digitalization enhances transparency and citizen confidence in public institutions.

Judicial departments are increasingly recognized as knowledge-intensive organizations, where service quality and decision accuracy depend on how effectively legal,

procedural, and institutional knowledge is created, shared, and applied. Empirical research underscores that knowledge-based processes—such as case documentation, precedent management, and digital archiving—directly enhance efficiency, transparency, and accessibility in justice delivery (World Bank, 2022; OECD, 2024). In the United Arab Emirates, entities like the Abu Dhabi Judicial Department (ADJD) exemplify this shift through initiatives that integrate digital case-management systems, e-filing platforms, and AI-supported decision aids to streamline judicial workflows and promote evidence-based rulings (Al Kattan, 2024; Abuzanjal et al., 2024).

From a theoretical perspective, the Knowledge-Based View (KBV) of the firm defines knowledge as a strategically valuable and inimitable resource that, when effectively created, shared, and applied, generates sustained organisational performance (Grant, 1996; Nonaka, 1994). This framework underpins contemporary Knowledge Management (KM), which is widely recognized as essential for organizational learning and innovation. Empirical research shows that KM processes (knowledge creation, sharing, storage, and application) significantly enhance innovation capacity and service performance in both private and public organisations (Alvarenga et al., 2020; Kassa et al., 2023).

In the UAE public sector, early initiatives institutionalized KM as a core governance mechanism. Al-Khouri (2014) developed a national KM framework to strengthen knowledge sharing and organizational learning within federal entities. Building on this foundation, Al Ahbabi (2017) proposed a KM model tailored to UAE public organisations, identifying knowledge creation and dissemination as key drivers of innovation and performance. Later empirical work by Al Ahbabi et al. (2021) confirmed that KM processes positively influence operational and innovation performance in UAE public institutions. These studies

demonstrate that KM can enhance service effectiveness when embedded in institutional culture and digital workflows.

Despite these advances, research directly linking KM processes to Digital Service Performance remains limited, particularly in judicial contexts. A systematic review by Kassa et al. (2023) highlighted the scarcity of studies analyzing how KM affects digital service outcomes such as service accessibility, user experience, and trust. Similarly, global assessments of judicial digitalization have focused more on technology adoption than on the organizational knowledge practices that sustain performance (OECD, 2024).

Innovation serves as a critical mechanism that transforms organizational knowledge into measurable performance gains. In public organizations, innovation enables adaptability, efficiency, and transparency (De Vries et al., 2016). Contemporary research distinguishes two key dimensions: innovation velocity, which includes the speed at which new ideas and digital solutions are implemented, and innovation quality, namely the relevance, usability, and sustainability of those solutions (Kessler and Chakrabarti, 1996; Maione, 2024). These dimensions are especially important for knowledge-intensive organizations such as judicial departments, where both responsiveness and integrity are crucial.

However, several contextual barriers continue to hinder innovation in UAE public entities, including bureaucratic rigidity, limited resource allocation, and uneven knowledge integration (Abuzanjal et al., 2024). Within the judicial sector, these constraints can impede the full realization of digital justice objectives, despite rapid technological advancement. Addressing such challenges requires understanding how KM processes interact with innovation dynamics to influence digital service performance.

Accordingly, this study examines the mediating role of innovation in the relationship between knowledge management processes and digital service performance in the UAE

judicial system. By addressing this empirical gap, the research contributes to both theory and practice by advancing knowledge on how KM and innovation jointly enhance digital service delivery in knowledge-intensive public institutions and supporting the UAE's strategic vision for world-class, digitally enabled justice.

1.2 Problem Statement

The United Arab Emirates (UAE) has positioned digital transformation at the forefront of its national development agenda, embedding it within long-term strategies such as “We the UAE 2031” and the “National Digital Government Strategy 2025” (UAE Government, 2023). Within this framework, judicial departments play a central role as knowledge-intensive institutions that depend on the generation, interpretation, and application of legal knowledge. Their transformation into digitally enabled entities is therefore crucial, not only to enhance efficiency and accessibility in justice services but also to reinforce transparency, accountability, and public trust in the rule of law (Al Kattan, 2024; OECD, 2024). Recent initiatives, such as the Abu Dhabi Judicial Department’s efforts to enhance remote litigation systems, demonstrate the UAE’s commitment to digital justice and service accessibility (WAM, 2023). By prioritizing the digitalization of judicial processes such as case management, service delivery, and citizen engagement, the UAE aims to strengthen institutional performance while advancing its broader objectives of smart governance and innovation-driven public administration (Al Sayegh et al., 2023; Abuzanjal et al., 2024).

Despite significant progress, the implementation of digital-justice initiatives continues to face persistent operational challenges. Organizational rigidities and limited inter-departmental collaboration hinder adaptability and responsiveness to citizens’ needs,