De-bureaucratisation through Digital Government Reform

Bahrain Case Study

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This case study investigates Bahrain's approach to de-bureaucratisation through digital government reform, highlighting how administrative simplification, institutional coordination, and service reengineering have reshaped public service delivery. Anchored in the goals of Bahrain's Vision 2030, the study examines how the Information and e-Government Authority (IGA) led a whole-of-government transformation, deploying over 700 digital services and achieving substantial reductions in transaction times and operational costs. Drawing on a mixed-methods approach, the study analyses platforms such as Tawasul, Sijilat, and MyGov, combined with performance data from the UN E-Government Development Index and national reporting. It identifies five core enablers of Bahrain's success: centralised digital governance, procedural simplification, citizen feedback loops, public-private partnerships, and robust digital identity systems. While Bahrain's experience offers a compelling blueprint for agile, cost-effective reform, the study also cautions against unresolved challenges such as digital exclusion, cybersecurity vulnerabilities, and institutional resistance. These findings offer relevant lessons for other small or resource-constrained states seeking to modernise public administration through digital innovation, with implications for both New Public Management (NPM) and GovTech paradigms. The study concludes that meaningful digital transformation depends not only on technology but on governance, accountability, and trust.

FOREWORD

Nowadays, citizens are demanding more agile, transparent, and responsive public services. In this context, the significance of de-bureaucratisation and simplification become increasingly evident. This is equally true for many of the ACSH's participating countries. A striking example is Kazakhstan, where President Tokayev issued a special decree – On measures to de-bureaucratize the activities of the State apparatus – which was declared one of the central pillars of reforms in the national public sector agenda.

Given that, the Hub decided to undertake a series of research initiatives and develop case studies on the subject. Our decision to spotlight Bahrain is grounded in its role as a country that has achieved significant progress in digital governance and the simplification of decision-making processes, and, as a result, de-bureaucratization.

During a recent visit to Manama, we had the opportunity to witness Bahrain's whole-of-government approach to digital transformation and were impressed by its ability to rapidly scale integrated digital services with precision and accountability. Its model, rooted in strong central coordination and supported by cutting-edge technologies such as biometric digital IDs and mobile-first service platforms, offers practical innovations that many of our participating countries aspire to adopt.

Bahrain's experience in de-bureaucratisation through digital government reform is not only instructive, but highly relevant for the countries of our region. Its success in reducing transaction times, improving citizen satisfaction, and fostering data-informed policymaking shows what is possible when reform is pursued with clarity, consistency, and courage. This case study, prepared on behalf of the ACSH, offers invaluable insights into how digital transformation can serve as a strategic tool for dismantling bureaucratic inefficiencies and advancing citizen-centric governance.

I would like to thank Dr. Mohamed AlSabba for his valuable contribution to the ACSH's knowledge base, and for shedding light on this important reform story. I also express my gratitude to all our partners across the ACSH network who are committed to learning from each other and advancing innovation in governance.

We hope this case study will serve as both a valuable resource for practitioners striving to enhance the efficiency of public administration and the quality of public services, and as a point of interest for scholars exploring contemporary public governance dynamics.

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Acknowledgements

About the Astana Civil Service Hub (ACSH)

The Astana Civil Service Hub is a flagship initiative of the Government of Kazakhstan and the United Nations Development Programme. It was created in 2013 by 5 international organisations and 25 countries: now comprising 45 participating countries. The geographical range of its participants stretches from the Americas and Europe through the CIS, the Caucasus, and Central Asia to ASEAN countries, demonstrating that partnerships for civil service excellence is a constant and universal need for all nations.

Its mandate is to assist in the promotion of public service effectiveness by supporting the efforts of governments of the participating countries in building institutional and human capacity; and thus, contributing to the improvement of civil service systems in the countries of the region and beyond.

The Astana Civil Service Hub is a multilateral institutional platform for the continuous exchange of knowledge and experience in the field of public service development, aiming at supporting government in the region and beyond through fostering partnerships, capacity building and peer-to-peer learning activities, and evidence-based research.

More information at www.astanacivilservicehub.org.

Table of Contents

List of Figures

List of Tables

Abbreviations and Acronyms

AI	Artificial Intelligence
COVID	Coronavirus Disease
CR	Commercial Registration
DESA	Department of Economic and Social Affairs
DGA	Digital Government Authority
EDB	Economic Development Board
EGDI	E-Government Development Index
GCC	Gulf Cooperation Council
GDP	Gross Domestic Product
GIS	Geographic Information System
HR	Human Resources
ICT	Information and Communication Technology
ID	Identification
IDARATI	Digital ID Platform (specific context may vary)
ISO	International Organisation for Standardisation
IT	Information Technology
KPI	Key Performance Indicator
LMRA	Labour Market Regulatory Authority
MENA	Middle East and North Africa
NPM	New Public Management
OECD	Organisation for Economic Co-operation and Development
SME	Small and Medium-sised Enterprises
SMS	Short Message Service
TRA	Telecommunications Regulatory Authority
UAE	United Arab Emirates
UN	United Nations
UNESCAP	United Nations Economic and Social Commission for Asia and the Pacific
USD	United States Dollar
UX	User Experience
WCAG	Web Content Accessibility Guidelines

Executive Summary

This case study critically examines Bahrain's strategy for de-bureaucratisation through Digital Government reforms. It highlights how the Kingdom has operationalised administrative simplification, procedural streamlining, and performance-driven service design as core enablers of institutional transformation. Rather than merely digitising existing workflows, Bahrain restructured service delivery models to eliminate redundancies, enhance accountability, and promote a citizen-first digital culture.

The analysis draws on both qualitative and quantitative data, including in-depth reviews of platforms such as Al Tajir, Tawasul, and MyGov, as well as performance metrics from the Information and e-Government Authority (IGA) and the United Nations E-Government Development Index (EGDI). Between 2019 and 2024, Bahrain's shift to digital services reduced transaction times for key services by more than two-thirds and cut government operational costs by an estimated 75–85% due to online delivery mechanisms (IGA, 2024). Public adoption has been substantial: over 4 million e-transactions were recorded in the first half of 2024 alone.[1] These efforts contributed to Bahrain's rise to 18th globally in the 2024 EGDI rankings (Information & e-Government Authority, 2021).

However, the study identifies persistent structural and governance gaps, including the continued existence of siloed platforms, digital exclusion risks among vulnerable populations, and the lack of a robust national data governance framework. To address these challenges, the case study provides some recommendations:

- Strengthening inter-agency interoperability and integration;
- Expanding inclusive digital literacy programmes;
- Updating cybersecurity and data protection legislation in line with global standards.

Through a systematic examination of Bahrain's digital reform trajectory, institutional leadership structures, and procedural simplification mechanisms, this case study offers transferable insights for policymakers in both emerging and advanced economies. The Bahraini experience demonstrates how small, centralised states can leverage political will, technological integration, and data-driven accountability to achieve rapid administrative transformation. The findings contribute to the broader literature on digital governance by situating Bahrain as a model of agile statecraft – particularly relevant for states seeking to dismantle bureaucratic inefficiencies while enhancing public service performance through digital innovation.

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[1] Startup Bahrain (08 August 2024). Bahrain achieves 89% digital transformation in e-Government services as new milestone. https://startupbahrain.com/news/bahrain-achieves-89-digital-transformation-in-e-government-services-as-new-milestone/

1. Introduction

Amid growing global imperatives to modernise public administration, digital transformation has emerged as a strategic pathway for reducing bureaucratic inefficiencies and enhancing service delivery. While Bahrain has received regional recognition for its advances in e-Government, this study focuses specifically on how institutional de-bureaucratisation, procedural simplification, and internal reform cycles have served as foundational drivers of the Kingdom's digital governance success.

Anchored in the strategic framework of "Economic Vision 2030",[2] Bahrain has implemented an ambitious agenda to digitise public services, improve government responsiveness, and foster citizen trust. Spearheaded by the Information and e-Government Authority (IGA), over 700 digital services have been launched across platforms including web portals, mobile applications, and self-service kiosks (IGA, 2024). These reforms have not only enhanced operational efficiency but also restructured the relationship between state institutions and citizens by minimising physical interactions, reducing procedural steps, and embedding accountability mechanisms.

This case study adopts a mixed-methods approach, integrating qualitative analysis of flagship platforms such as *Tawasul, Sijilat 4.0*, and *MyGov* with performance indicators drawn from national and international datasets, including the UN E-Government Development Index. In addition to tracing Bahrain's reform trajectory, the study examines emerging trends in digital innovation, such as the preliminary application of artificial intelligence within administrative workflows. While these innovations remain nascent, they underscore Bahrain's intent to remain at the forefront of agile public sector transformation.

Ultimately, the study aims to evaluate not only the extent and impact of de-bureaucratisation in Bahrain's digital transformation, but also the institutional conditions that made these reforms possible – offering insights for other states pursuing similar modernisation agendas.

2. Contextual Background

Bahrain's relatively small, urbanised, and tech-savvy population, estimated at 1.5 million with 52% expatriates (World Bank, 2024), has fostered strong demand for fast, multilingual public services. The country's economic diversification – over 80% of GDP now comes from non-oil sectors – necessitated a shift toward more agile, efficient government support structures.[3] Internet penetration exceeds 98%, while smartphone usage is nearly universal (TRA Bahrain, 2022), providing fertile ground for digital public service delivery. These demographic and technological characteristics, combined with the government's centralised administrative structure, created an ideal context for launching widespread e-Government reforms.

Bahrain's youthful population expects services to be digital-first, mobile-accessible, and responsive (UNDESA, 2022). These factors heavily shaped the priorities and urgency of Bahrain's de-bureaucratisation efforts.

2.1 Demographic and social characteristics

Bahrain is a small nation of ~1.5 million people, of whom just under half are expatriates. This cultural diversity necessitates bilingual public services (Arabic and English) and inclusive design for non-citizens. The population is also highly urbanised (especially around Manama) and youthful – roughly 70% are under 35 – leading to a populace that is tech-savvy and expects digital-first interactions with government. Moreover, the country's high internet penetration (over 98%) provides a ready infrastructure for e-services. These socio-demographic factors set a favourable stage for Bahrain's e-Government push, allowing digital services to quickly reach most residents.

2.2 Economic Characteristics

Bahrain, classified as a high-income economy, has strategically transitioned from its historical dependence on oil toward a more diversified economic model centred on finance, tourism, logistics, and technology. Non-oil sectors now contribute over 80% to Bahrain's GDP, with financial services alone accounting for approximately 17% of GDP, as of 2023. This diversification has reshaped the demands placed on public services, requiring efficient, specialised support for business registration, financial regulation, and digital infrastructure. In response, the government has launched a wide range of tailored e-Government platforms – such as *Sijilat* for business licensing and the *Al Tajir* app for commercial services – streamlining administrative processes and encouraging entrepreneurship.

As part of this economic evolution, Bahrain's relatively high GDP per capita, estimated at around USD 28,000 in 2023, has provided the fiscal space to invest in cutting-edge public service technologies. These investments include digital portals, mobile applications, and AI-enabled tools designed to deliver fast, utiliser-centric services to both individuals and businesses. In this context, digital transformation is not merely a technological upgrade but a strategic tool that supports broader economic development goals by enhancing efficiency, transparency, and accessibility.

At the heart of Bahrain's long-term economic agenda is "Economic Vision 2030", a comprehensive national plan that emphasises sustainability, private sector growth, and increased global competitiveness. The vision promotes the concept of government as a facilitator rather than a provider, highlighting the importance of responsive and

Map of Bahrain

Source: Vecteesy doodle freehand drawing map
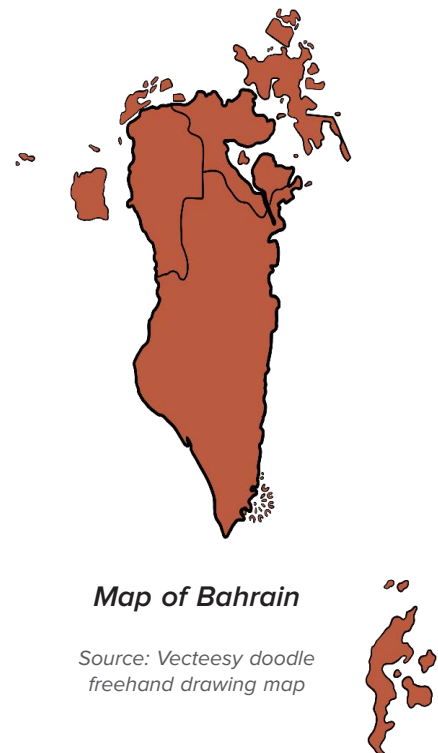
cost-effective services in reducing bureaucratic burdens and fostering investor confidence. Efficient eGovernment services are therefore essential in lowering the cost of conducting business, improving the regulatory environment, and attracting foreign direct investment.

Additionally, Bahrain's compact geographic size offers a unique advantage: centralised governance. This facilitates rapid nationwide implementation of digital initiatives and ensures consistent access to public services across urban and rural areas. The country's unified approach has made it easier to integrate new technologies, maintain cohesive policy coordination, and deliver seamless, inclusive digital experiences for citizens and residents alike.

Additionally, Bahrain's compact geographic size and highly centralised governance model offer a distinctive advantage – especially within the Gulf Cooperation Council (GCC) and Arab region – by enabling swift, top-down implementation of digital reforms. This centralisation facilitates uniform policy application across ministries, reduces the risk of jurisdictional fragmentation, and accelerates alignment between strategic vision (e.g., Vision 2030) and operational delivery. While other small and centralised states such as Singapore, Estonia, and Qatar also exhibit these traits, Bahrain's case is marked by a combination of administrative cohesion, political will, and coordinated digital leadership under the Supreme Council for ICT, which collectively allowed for the rapid deployment of over 700 e-services across sectors (IGA, 2024). This governance architecture enables Bahrain to test, scale, and refine digital solutions nationally with limited lag, a capability that is often harder to replicate in more decentralised or federal systems (OECD, 2021; World Bank, 2022).

In sum, Bahrain's economic structure, development vision, and geographical characteristics have collectively shaped an enabling environment for e-Government. These factors ensure that public service delivery is not only modernised but aligned with the nation's ambitions for sustainable, inclusive, and innovation-driven growth.

2.3 Influence on Public Service Delivery

The intersection of Bahrain's demographic, economic, and social characteristics has created an enabling environment for the advancement of e-Government. Bahrain's digital literacy rate exceeds 92% among adults under 45, driven by mobile-first service design and long-standing ICT training in schools (TRA Bahrain, 2022). Digital inclusion programmes, such as kiosk-based services and community digital ambassadors, are targeting older and rural populations.

The government has had to adapt to the evolving needs of a youthful, digitally literate population – nearly 70% of whom are under the age of 35 (UNDESA, 2022) – while aligning its efforts with national priorities for economic diversification, sustainable development, and public sector modernisation. These interwoven factors have collectively driven the push towards digital transformation, positioning Bahrain as a regional leader in e-Government initiatives.

The move towards digital platforms has brought about tangible improvements across multiple dimensions of governance. Among the most notable outcomes has been the sharp reduction in service delivery costs and processing times. According to the Information and e-Government Authority (IGA), government services have witnessed cost reductions averaging between 75% and 85%, with transaction times decreasing by approximately 65% following widespread

digitisation dissatisfaction (SAMENA Council, 2023).[4] These efficiencies have not only enhanced utiliser satisfaction but also contributed to Bahrain's broader economic strategy by driving down administrative overheads and facilitating faster, more reliable business processes.

Accessibility to government services has also been substantially broadened. With internet penetration exceeding 98% and near-universal mobile phone usage (TRA Bahrain, 2022), citizens and residents across Bahrain can now interact with public services remotely through a variety of digital channels, including the national portal (bahrain.bh), mobile applications, and smart kiosks distributed throughout the country (IGA, 2024). This extensive connectivity has broken down traditional barriers of location and time, allowing utilisers to carry out administrative tasks – such as license renewals, utility payments, and legal filings – from virtually anywhere.

Furthermore, e-Government platforms have emerged as powerful tools for promoting transparency and accountability. Systems such as *Tawasul*, Bahrain's national suggestions and complaints portal, enable real-time citizen engagement by providing mechanisms for feedback submission and issue resolution tracking (IGA, 2024). By allowing users to follow up on responses and monitor service outcomes, *Tawasul* has helped build public trust in government operations and has strengthened institutional accountability.

Another key outcome of Bahrain's digital transformation is the development of data-driven policymaking capabilities. The digitisation of public services continuously generates large volumes of real-time administrative data, allowing decision-makers to monitor service usage trends, assess public satisfaction, and pinpoint delivery gaps (UNDESA, 2022). This data-centric governance model has enabled authorities to optimise resource allocation and adapt services to meet changing citizen needs, thereby reinforcing the role of digital platforms as strategic assets for evidence-based public administration.

Figure 1 offers a comprehensive overview of the foundational pillars, enabling mechanisms, and policy outcomes underpinning Bahrain's digital transformation. By linking key socio-demographic drivers — such as a youthful, mobile-first population — with digital infrastructure and institutional coordination, the figure frames how inputs translate into system-level change and measurable impacts like service efficiency, accessibility, and public trust.

The alignment between Bahrain's socio-economic context and its digital transformation agenda sheds light on the country's substantial progress in e-Government development. In the latest United Nations E-Government Development Index (EGDI) published in 2024, Bahrain ranked 18th globally, reflecting significant advances in service digitalisation, human capital development, and technological infrastructure (UNDESA, 2024). As Bahrain continues to move forward under its Vision 2030 framework, ongoing reforms are expected to play a pivotal role in reimagining public administration – making government services not only more efficient and accessible but also increasingly inclusive and responsive to the demands of a modern, mobile-first society.

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4   SAMENA Council. (22 October 2023). *Bahrain achieves 89% digital transformation in e-Government services*. https://www.samenacouncil.org/samena_daily_news?news=101703.

Figure 1. e-Government in the Kingdom of Bahrain

03 Outcomes & Impacts (What it achieved)

Service Efficiency
Up to 96% cost reduction
Up to 68% time savings

Accessibility
Services available anytime, anywhere

Citizen Satisfaction & Trust
Higher engagement, greater public confidence

Data-Driven Governance
Real-time analytics, better policy decisions

Regional Leadership
1st in Arab region, 32nd globally (UN EGDI)

02 System Enablers (How it works)

Digital Infrastructure
Bahrain.bh, smart kiosks, mobile apps

Policy & Institutional Support
iGA leadership, legal frameworks

User-Centric Platforms
Accessibility across all devices

Feedback Systems
Tawasul, real-time tracking

01 Key Drivers (WHY e-Gov emerged)

Youthful Demographic
70% under age 35

High Digital Literacy
Tech-savvy, mobile-first population

98% Internet Penetration
Nearly universal access

National Priorities
Economic diversification
Public sector modernization
Vision 2030 alignment

For example, data collected via the *Tawasul* platform has been systematically analysed to identify recurring service delivery bottlenecks across ministries. In 2023, complaints data from *Tawasul* highlighted a surge in delays related to municipal permit approvals, prompting the Ministry of Municipalities to redesign its internal approval workflows and reassign human resources to high-demand areas (IGA, 2024). Similarly, the Government of Bahrain (2025) states that the Ministry of Health has leveraged real-time analytics from its *Sehati* platform to monitor regional demand for healthcare appointments and adjust physician deployment. Another case is the Labour Market Regulatory Authority (LMRA), which utilised digital transaction data from its employment permit portal to forecast labour market trends and revise quota policies for sectors with high expatriate employment (Labour Market Regulatory Authority [LMRA], 2023). These examples demonstrate how Bahrain is operationalising administrative data not just for performance monitoring, but as an active input into adaptive, evidence-informed public sector planning (OECD, 2021; World Bank, 2022).

3. Rationale for Reform

3.1 Drivers of Change

Bahrain's e-Government reforms were propelled by a convergence of strategic, economic, technological, and social factors, all of which created an urgent imperative to modernise public service delivery. Chief among these drivers was the need for economic diversification. Historically reliant on oil revenues, Bahrain recognised the risks inherent in a resource-dependent economic model and proactively embarked on a diversification strategy articulated in its Vision 2030 framework (Government of Bahrain, 2008).

To reduce its dependence on oil, Bahrain implemented a multi-pronged economic diversification strategy anchored in the Economic Vision 2030, launched in 2008. Key components include:

- *Development of the non-oil private sector:* The government actively promoted growth in finance, ICT, tourism, and logistics by streamlining business registration (e.g., via Sijilat), offering fiscal incentives, and liberalising foreign ownership rules in certain sectors.

- *Public-private partnerships (PPPs):* Bahrain encouraged private sector participation in infrastructure, education, and digital service delivery. For instance, digital health screening services and construction permit platforms were developed with private sector support.

- *Regulatory modernisation:* Bahrain established specialised regulatory bodies (e.g., the Central Bank of Bahrain, the Telecommunications Regulatory Authority) and adopted pro-business reforms to improve the ease of conducting business.[5]

- *Human capital and education reform:* Initiatives like *Tamkeen* were launched to support workforce skills upgrading, entrepreneurship, and SME development – aligning labour market competencies with the needs of a digital and diversified economy.

These reforms were not only macroeconomic, but also institutional – supporting the creation of a service-oriented government aligned with private sector needs. The digitalisation of public services became a key enabler in facilitating this shift by improving regulatory efficiency, lowering compliance burdens, and building investor confidence (IGA, 2024; EDB Bahrain, 2023; OECD, 2021).

According to the Ministry of Finance and National Economy (2024), non-oil activities represented 85.9% of GDP in Q1 2024, while financial and insurance services accounted for 16.7%.[6] This structural shift compelled the government to streamline administrative services to better support the expanding sectors of finance, logistics, tourism, and information and communications technology (ICT).

To achieve economic diversification, Bahrain adopted a series of integrated strategies under its Economic Vision 2030, which may offer instructive lessons for similarly resource-dependent countries. First, the government prioritised private sector development by streamlining

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[5]   Ranked among the top 10 improvers globally in 2020 (World Bank, 2020).

[6]   Ministry of Finance and National Economy. (2024). Bahrain Economic Quarterly: Q1 2024.   https://www.mofne.gov.bh/media/4tip4kef/beq-q12024_en.pdf

regulatory frameworks, liberalising foreign investment laws, and focusing on high-potential sectors such as finance, ICT, tourism, and logistics. Key digital platforms – such as *Sijilat* for business licensing and *Al Tajir* for commercial services – were designed to ease market entry and reduce compliance burdens. Second, Bahrain invested heavily in human capital development through initiatives like *Tamkeen*, which provides training subsidies, SME support, and entrepreneurship incentives. Third, public-private partnerships (PPPs) were leveraged to expand digital and physical infrastructure while maintaining fiscal discipline. The digitalisation of inspection services, health screening, and building permits – often developed in collaboration with private providers – illustrates this hybrid governance approach.

Finally, Bahrain strengthened its regulatory institutions, such as the Central Bank of Bahrain and the Telecommunications Regulatory Authority, to foster a competitive, innovation-friendly business environment. These reforms collectively supported Bahrain's transition from an oil-reliant rentier model to a service-oriented economy, with non-oil activities accounting for 85.9% of real GDP in Q1 2024, and financial and insurance services contributing 16.7% (Ministry of Finance and National Economy, 2024). By aligning Digital Government with macroeconomic transformation, Bahrain offers a replicable model of how institutional agility and administrative reform can underpin sustainable economic diversification.

Technological advancements and the growth of digital infrastructure provided a second major catalyst. Bahrain boasts an internet penetration rate exceeding 98%, widespread smartphone adoption, and reliable mobile broadband access across its territory (TRA Bahrain, 2022). These technological conditions created a favourable environment for e-Government development and simultaneously raised the bar for public expectations. The country's youthful and digitally fluent population – around 70% of whom are under the age of 35 (UNDESA, 2022) – increasingly demanded faster, mobile-first interactions with government entities. In this environment, traditional paper-based bureaucratic models increasingly fell short of citizens' needs.

In parallel, rising citizen expectations for transparency, responsiveness, and service convenience exerted additional pressure on the government to reform. Higher levels of educational attainment and digital literacy among Bahrainis further amplified demands for accountable governance and real-time service delivery (World Bank, 2022). In direct response, the government introduced platforms such as Tawasul, the National Suggestions and Complaints System, designed to provide structured channels for citizen feedback, issue resolution, and institutional accountability (Information & e-Government Authority [IGA], 2024). These platforms have played a pivotal role in reshaping citizen–government interactions, enabling users to track service outcomes and compelling public institutions to enhance their responsiveness.

Finally, Bahrain's geographic compactness and centralised governance structure acted as a strategic enabler. The country's small size and highly centralised administrative system allowed it to roll out nationwide digital reforms with greater speed and uniformity than would have been possible in larger or more decentralised contexts (World Bank, 2020). This administrative advantage facilitated the harmonisation of digital standards across ministries and agencies, reducing fragmentation and accelerating the adoption of integrated e-services.

Rising citizen expectations for transparency and responsiveness have pushed Bahrain to move beyond top-down reform mandates and institutionalise bottom-up accountability mechanisms. While earlier sections introduced platforms like *Tawasul*, it is worth emphasising here that their strategic value lies not only in complaint resolution but in shaping ministerial performance

through integrated, real-time feedback dashboards. By embedding public input into reform monitoring structures overseen by the Supreme Council for ICT, Bahrain signals a transition toward participatory governance as a pillar of digital transformation – rather than a peripheral add-on.

In sum, the confluence of economic restructuring imperatives, technological readiness, evolving citizen demands, and administrative agility paved the way for Bahrain to launch one of the region's most comprehensive e-Government reform programmes. These drivers collectively shaped the direction, speed, and scale of Bahrain's ongoing digital transformation.

3.2 Policy Objectives

The primary objectives underpinning Bahrain's e-Government reform initiatives centred on enhancing efficiency, transparency, and responsiveness in public service delivery, consistent with the strategic aspirations of the Economic Vision 2030 framework (Government of Bahrain, 2008).

Efficiency constituted a foundational goal. The government sought to drive down both the financial and temporal costs associated with service delivery, recognising that bloated administrative processes undermined national competitiveness. According to the Information and e-Government Authority (IGA), the digital transformation programme has led to average cost reductions between 75% and 85%, alongside transaction time savings of approximately 65% across a broad range of public services.[7] These gains have not only streamlined internal workflows but have also made public services significantly more accessible and convenient for citizens and businesses alike, thus contributing to broader economic productivity goals.

Transparency and accountability represented a second core pillar of the reform agenda. The introduction of digital platforms such as *Tawasul* has allowed citizens to submit feedback, lodge complaints, and monitor the resolution process in real time (IGA, 2024). This structured feedback mechanism has served to strengthen institutional accountability, foster greater public trust, and pave the way for a culture of continuous service improvement within the public sector. By giving citizens, the ability to follow up on service issues and track government responsiveness, Bahrain's digital initiatives have enhanced the transparency of bureaucratic processes that were historically opaque.

Responsiveness to citizen needs formed the third pillar of the reform strategy. Public services have been intentionally rolled out through multiple accessible channels, including the national e-Government portal (bahrain.bh), mobile applications, and a network of smart kiosks (IGA, 2024). Services are offered bilingually in Arabic and English to accommodate Bahrain's diverse population, where expatriates constitute approximately 52% of residents (World Bank, 2022). Moreover, the 24/7 availability of these digital services has allowed the government to keep up with the dynamic demands of youth, working professionals, and international residents, reflecting a genuine shift toward citizen-centric governance.

Pushing on these objectives, Bahrain has not only accelerated the de-bureaucratisation of service delivery but has also laid firmer foundations for participatory governance and economic competitiveness. These efforts have been recognised globally. Bahrain's high classification in

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[7] *News of Bahrain. (2 April 2024). Tawasul hits new milestones with 85,000 cases processed.* https://www.newsofbahrain.com/bahrain/100292.html

the 2022 EGDI – 18th position globally – demonstrates the tangible impacts of its strategic digital transformation efforts (UNDESA, 2022; 2024). Bahrain's ranking of 18th in the 2022 UN E-Government Development Index (EGDI) reflects the global recognition of its strategic digital transformation efforts (UN DESA, 2022; 2024).

Pushing on these objectives, Bahrain has not only accelerated the de-bureaucratisation of service delivery but also laid firmer foundations for participatory governance and economic competitiveness. This progress was reflected in Bahrain's 18th place ranking in the 2022 UN E-Government Development Index (EGDI), a recognition of its strategic digital transformation efforts (UN DESA, 2022; 2024).

Table 1. Rationale summary for e-Government Reform in Bahrain

Category	Key Factors	Details & Statistics
Drivers of Change	Economic Diversification	Non-oil sectors contribute over 80% of GDP; financial services make up 17%
	Technological Advancements	98% internet penetration; widespread smartphone use
	Citizen Expectations	70% under 35 years old; increasing demand for digital, fast, mobile-first services
	Centralised Governance	Small geographic size enables nationwide coordination of digital initiatives
Policy Objectives	Efficiency	Government costs reduced by up to 96%; transaction times reduced by 68%
	Transparency & Accountability	Real-time citizen feedback via Tawasul
	Responsiveness	700+ e-Services delivered via portal, mobile apps, and kiosks
	Global Recognition	Ranked 1st in the Arab region and 32nd globally in UN E-Government Development Index (EGDI)

The digital transition in Bahrain was neither linear nor immediate; rather, it was anchored in two foundational pillars – clearly defined drivers of change and targeted policy objectives. As outlined in Table 1, these pillars served as the strategic backbone of Bahrain's e-government reform, mapping out the core motivations and expected outcomes that guided the transformation process. Early challenges included bottlenecks in inter-agency coordination, fragmented IT infrastructure, and resistance from entrenched administrative structures. These obstacles were gradually addressed through a combination of high-level coordination by the Supreme Council for ICT, phased platform rollouts with mandatory adoption deadlines, and the designation of internal reform champions within each ministry tasked with facilitating the digital transition (IGA, 2024; OECD, 2021).

4. Reform Strategies and Initiatives

As of 2024, Bahrain offers over 700 public services, of which more than 89% have been fully digitalised (IGA, 2024). This transformation unfolded over a 15-year period, beginning with the 2008 launch of the first e-Government strategy and accelerated by Vision 2030 and post-COVID reform cycles. The Information and e-Government Authority (IGA) has rolled out a comprehensive reform agenda aimed at modernising government operations and enhancing the efficiency, accessibility, and transparency of public service delivery. Central to these efforts are three strategic pillars: the simplification of administrative procedures, the dismantling of bureaucratic hurdles, and the integration of advanced digital technologies. Together, these focus areas seek to transform the interface between citizens and the state, in line with Bahrain's Vision 2030 aspirations.

One of the most impactful initiatives undertaken by the IGA has been the overhaul of the Commercial Registration (CR) process. Previously, obtaining a CR required applicants to undergo separate inspections and approvals from multiple entities, including the Ministry of Health, Civil Defence, the Environment Agency, and various municipal authorities. This fragmented approach led to considerable delays and administrative complexity. To tackle these inefficiencies, the IGA coordinated inter-agency efforts and established a unified inspection system, effectively cutting down processing times and bringing down administrative barriers (IGA, 2024).

As a result, entrepreneurs and businesses can now navigate the registration process more swiftly, enhancing Bahrain's ease of conducting business and fostering a more conducive environment for private sector growth. Another significant reform targeted the foreign worker inspection process. Historically, medical inspections for foreign domestic workers could take up to two months to complete, prompting some employers to deploy workers before appropriate health clearances were finalised, thereby posing serious public health risks. To address this challenge, the Information & e-Government Authority (IGA) launched an online portal enabling employers to schedule mandatory health inspections directly through accredited private hospitals. This digital solution has reduced inspection-processing times to under 48 hours – enhancing operational efficiency, public safety, and cost-effectiveness. It also demonstrates how e-Government initiatives can safeguard societal well-being while streamlining administrative procedures.[8]

This digital solution has reduced inspection-processing times to under 48 hours, improving both operational efficiency and public safety standards and increased cost savings. It also exemplifies how e-Government initiatives can simultaneously safeguard societal well-being while streamlining administrative procedures.

A further notable innovation is the digitalisation of lease contract services. The earlier system, heavily reliant on manual processing and government staff intervention, often resulted in service backlogs and increased administrative burdens. By moving the lease registration process online via the national e-Key authentication platform, the IGA has allowed tenants and landlords to upload, validate, and finalise lease agreements remotely at any time, including weekends and public holidays.[9] This digital transformation not only trimmed down transaction times but

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[8]   Government of Bahrain, National Portal. *Pre-Employment Health Checkup: Safeguarding Workers' Health and Ensuring Workplace Safety.* Updated August 7, 2025. https://www.bahrain.bh/wps/portal/en/BNP/HomeNationalPortal/ContentDetailsPage/!ut/p/z1/tVVB… (full link).

[9]   Information & e-Government Authority IGA). (12 March 2025). *My Gov Application Official Launch.* https://www.iga.gov.bh/en/article/mygov-launch-2025

also alleviated workload pressures on public sector employees, thereby freeing up resources for higher-value governance activities. Moreover, by building on partnerships with accredited private service providers, the initiative illustrates Bahrain's broader strategy of leveraging private sector capacity to advance citizen-centric, efficient governance.

Collectively, these reforms illustrate Bahrain's pragmatic approach to de-bureaucratisation: cutting procedural redundancies, enhancing utiliser experience, and embedding digital infrastructure at the heart of service delivery. While initial results are promising, continuous monitoring of service quality, citizen uptake, and administrative coordination will be crucial to ensure that digital reforms sustainably replace outdated bureaucratic models rather than merely digitalise inefficiencies.

4.1 Simplification Efforts

The Information and e-Government Authority (IGA) has carried forward a series of substantial initiatives to streamline government processes, aiming to reduce redundancies, eliminate procedural bottlenecks, and foster a more accessible public service environment. Among the most prominent examples is the development of Sijilat 4.0, a comprehensive digital platform launched in partnership with the Ministry of Industry and Commerce. This system integrates more than 50 business licensing agencies into a unified online interface, enabling entrepreneurs and investors to apply for, update, renew, and terminate multiple licenses concurrently (Ministry of Industry and Commerce, 2024). By automating application workflows and providing a consolidated guidebook covering over 600 distinct business activities, *Sijilat 4.0* has markedly reduced procedural complexity and enhanced service transparency. Bahrain's efforts in this domain align with the maturity benchmarks for public service innovation outlined by UN ESCWA (2023), particularly in fostering interoperability, streamlining licensing regimes, and enhancing user-centricity in government platforms.

Under Bahrain's internal Service Simplification Policy (2021), every public service must be justified via a "necessity matrix" submitted to IGA. Ministries must explain each step's legal mandate, operational relevance, and data requirement. This is not just a policy – it is mandated by Decree No. 28 (2021), enforced by IGA's audit and dashboard system. Redundant steps are flagged for elimination and must be removed within one reform cycle.

Table 2. Before and After Reform – Impact of Simplification on Public Services

Service Area	Before Reform	After Reform	Outcome
Commercial Registration (CR)	5+ ministry visits	Unified online portal via Sijilat 4.0	Time reduced by 70%
Building Permits	Manual submissions	GIS-based Benayat portal	Faster approvals, fewer rejections
Foreign Worker Health Checks	Paper forms + delays	Direct booking via private hospitals	Cut delays by 80%
Lease Registrations	Ministry office visits	Online via e-Key-authenticated portal	24/7 remote access

Under Bahrain's internal *Service Simplification Policy (2021)*, every public service must be justified via a "necessity matrix" submitted to IGA. Ministries must explain each step's legal mandate, operational relevance, and data requirement. This is not just a policy – it is mandated by Decree No. 28 (2021), enforced by IGA's audit and dashboard system. Redundant steps are flagged for elimination and must be removed within one reform cycle (Information & e-Government Authority, 2021).

Table 2 provides concrete examples of this transformation in action, presenting key public services that were reengineered through this mandate and showcasing measurable improvements in service delivery time, cost efficiency, and overall user satisfaction.

Empirical evidence suggests that *Sijilat 4.0* has sped up licensing procedures significantly, reducing processing times by up to 70% for certain activities and contributing to Bahrain's overall improvements in business climate indicators[10]. The platform's integration of government entities into a single window also aligns with international best practices advocated by the United Nations, particularly under the "whole-of-government" approach recommended for effective digital service delivery (United Nations Department of Economic and Social Affairs (UNDESA, 2022).

Parallel to these efforts, the *Benayat* system has revolutionised the building permit process in Bahrain. This specialised online portal allows licensed engineering offices to submit building permit applications, track application statuses, obtain technical consultations from relevant regulatory bodies, and complete all associated fee payments electronically (IGA, 2024). *Benayat* consolidates key regulatory information – such as zoning codes, construction standards, and application requirements – into a single digital repository, while offering an interactive geographic information system (GIS) map that provides parcel-specific data necessary for preparing architectural and engineering drawings.

The impact of *Benayat* has been particularly notable in reducing the traditional inefficiencies associated with permit approvals, which historically involved multiple physical visits to disparate government offices. By centralising regulatory oversight and simplifying procedural requirements, *Benayat* has cleared away significant administrative burdens, thereby facilitating faster project initiation times for the construction and real estate sectors (EDB Bahrain, 2023).

These initiatives exemplify Bahrain's strategic commitment to re-engineering public services around the principles of simplification, integration, and citizen-centricity. However, sustaining these gains will require ongoing investments in system interoperability, utiliser feedback mechanisms, and capacity-building for government staff, in line with emerging best practices in digital governance (World Bank, 2022). Without continuous refinement, there is a risk that digital systems could build up new layers of complexity, replicating traditional bureaucratic inefficiencies in digital form.

In addition to citizen-facing reforms, Bahrain intensified internal de-bureaucratisation by streamlining inter-ministerial workflows. A key instance is the *Sijilat 4.0* commercial registration system, where backend approvals from ministries like Health, Municipal Affairs, and Civil Defence are now executed through a unified workflow engine – eliminating the need for

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[10]   Reports on Sijilat 4.0's impact on licensing efficiency include Startup Bahrain (2023), "Sijilat 4.0 rollout accelerates licensing procedures," and *News of Bahrain* (2023), "Business licensing times reduced under Sijilat 4.0.

memos or physical file transfers and significantly accelerating clearance processes.[11] Similarly, the MyGov platform consolidates previously fragmented HR, procurement, and payroll functions into centralised e-services for civil servants, accessible via secure login, reducing internal service requests by up to 45%. These changes allowed administrative staff to focus more on analytical and strategic functions rather than procedural routing. Moreover, Bahrain's e-Correspondence System (e-CS) replaced paper-based official memos with encrypted digital communication across ministries, cutting down internal correspondence times from days to hours (IGA, 2024).

4.2 De-bureaucratisation Measures

The Information and e-Government Authority (IGA) has carried forward a comprehensive suite of measures aimed at dismantling bureaucratic bottlenecks, decentralising decision-making authority, and empowering frontline administrative staff. These initiatives align closely with Bahrain's broader vision of transforming its public administration into a dynamic, citizen-centric service provider under the Government's Vision 2030 framework.

Although Bahrain operates within a highly centralised governance framework, its e-Government reforms have enabled functional decentralisation by delegating operational authority to frontline administrative units and digital platforms. A clear example is the transformation of the foreign worker health inspection process, where employers now interact directly with accredited private hospitals – rather than a central ministry – for scheduling and certification, based on decentralised service protocols[12].

Similarly, the *Benayat* building permit system empowers licensed engineering offices to submit, revise, and manage applications with minimal ministry intervention, relying instead on automated cross-agency clearance pathways (IGA, 2024). Another example is *Tawasul*, where ministries are individually accountable for resolving citizen complaints within predefined service level agreements (SLAs), without escalation to central authorities unless deadlines are missed. This delegation of responsibility – paired with transparent performance dashboards – reflects a shift toward decentralised accountability and faster decision-making at the point of service.

Figure 2 summarises this multi-layered strategy by connecting Bahrain's high-level goal of reducing bureaucracy with the operational initiatives and measurable impacts delivered through platforms such as *Tawasul, Benayat,* and digital service redesign. The figure effectively illustrates how streamlined workflows, empowered staff, and digitised citizen interaction have produced tangible improvements in service speed, transparency, and public trust.

While high-level policy remains centrally coordinated, these operational examples illustrate Bahrain's pragmatic move toward decentralising authority in service delivery to improve efficiency and responsiveness.

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[11] Government of Bahrain, National Portal. *Impact of the eGovernment Program Initiatives: Business Licensing Information System (Sijilat).* Accessed August 25, 2025. Available at: https://shorturl.at/K6IYm.

[12] Government of Bahrain, National Portal. *Pre-Employment Health Checkup: Safeguarding Workers' Health and Ensuring Workplace Safety.* Updated August 7, 2025. https://shorturl.at/K6IYm.

Figure 2. De-Bureaucratisation of e-Gov services
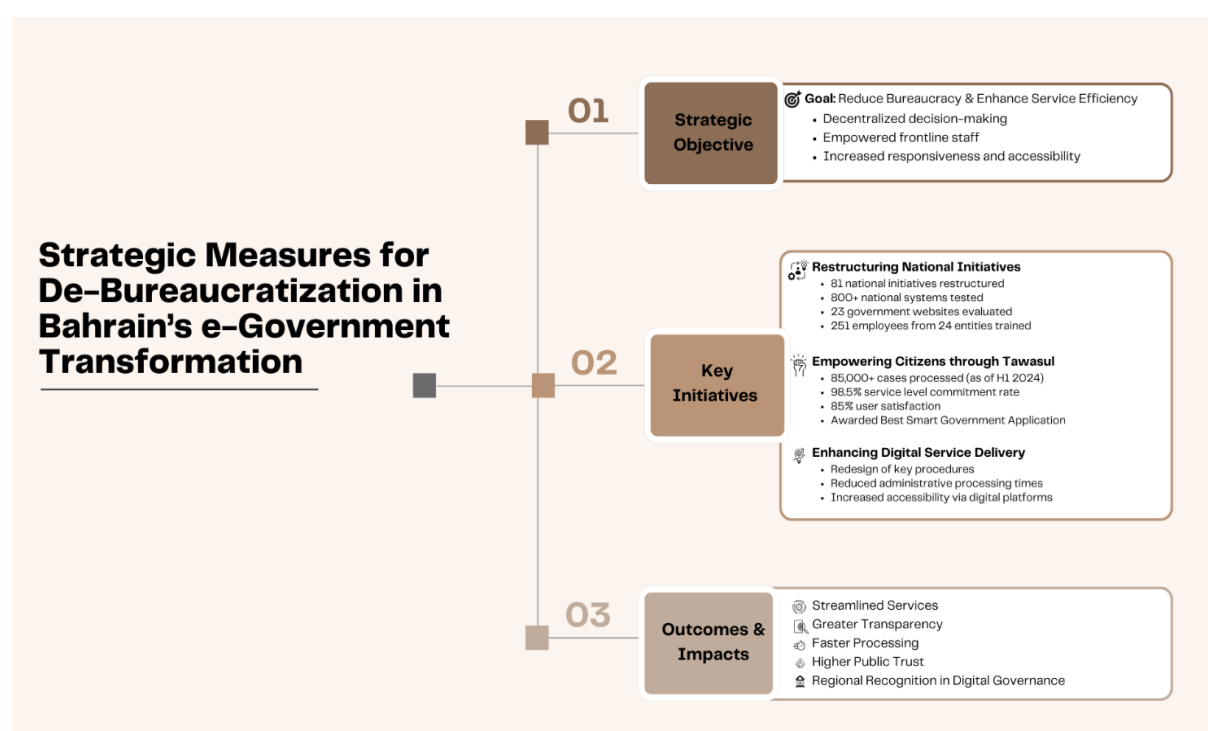
4.2.1 Restructuring National Initiatives

Central to Bahrain's de-bureaucratisation agenda was the restructuring of 81 national initiatives, encompassing electronic services and integrated information systems across multiple ministries and agencies (IGA, 2024). This massive undertaking sought to streamline workflows, eliminate duplicative processes, and bring about greater inter-ministerial collaboration. The IGA tested over 800 national digital systems for functionality, utiliser-friendless, and interoperability. Such testing was crucial to ensure that siloed systems could work together efficiently, thus preventing the re-emergence of digital bureaucracies – a common risk in government modernisation programs (World Bank, 2022).

The 11-Step Review Framework, launched in 2022 by IGA, mandates ministries to evaluate each service against 11 criteria – necessity, duplication, legal basis, data reutilise, automation feasibility, etc. Each service is mapped, and steps not justified are eliminated. Ministries must submit annual reviews for auditing, with reforms tracked in a central dashboard chaired by the IGA Chief Operating Officer. Thus, 23 government websites were audited against the Web Content Accessibility Guidelines (WCAG) and ISO standards to ensure that Bahrain's digital platforms not only functioned effectively but were also inclusive and accessible to citizens of diverse abilities.

Recognising that digital reform depends not only on systems but also on people, the IGA invested heavily in capacity-building. A total of 251 civil servants from 24 government entities were trained in digital service management, cybersecurity awareness, and citizen-centric service design (IGA, 2024). This human capital development approach mirrors best practices emphasised by the OECD for sustainable public sector innovation (OECD, 2021).

4.2.2 Empowering Citizens through Tawasul

Tawasul, launched in 2014, embodies Bahrain's commitment to participatory governance by providing an institutionalised platform for citizen feedback. Citizens and residents can lodge complaints, submit suggestions, and track government responses in real time, thus opening up a direct communication channel that bypasses traditional bureaucratic layers (IGA, 2024).

The platform's performance metrics are notable: over 85,000 cases processed as of mid-2024, a 98.5% resolution rate within committed timelines, and an overall satisfaction rate of 85%. Importantly, *Tawasul* does not merely serve a symbolic role; it has influenced tangible service improvements, with many government agencies integrating *Tawasul* feedback into operational reforms. Its regional recognition through the Arab Government Excellence Award underscores Bahrain's achievement in operationalising digital citizen engagement.[13]

However, sustaining *Tawasul's* effectiveness will depend on continuous public trust. As noted in comparative studies of e-participation platforms, maintaining transparent case resolution processes and publicising institutional learning outcomes from citizen input will be essential to avoid perceptions of tokenism (UNDESA, 2022).

4.2.3 Enhancing Service Delivery through Digital Transformation

Beyond individual platforms, Bahrain's de-bureaucratisation strategy has relied heavily on comprehensive digital transformation across ministries. This included reengineering workflows to minimise manual steps, integrating backend databases to facilitate inter-agency collaboration, and redesigning service touchpoints to be mobile-first (Mohamed t all.,2024).

For example, licensing processes that once required physical document submission and in-person verification have been stripped down to fully online applications authenticated via e-Key 2.0. By freeing up citizens from the need to navigate multiple government offices, Bahrain has flattened previously hierarchical service models, creating a more agile state apparatus.

Nevertheless, the transformation remains ongoing. Key future challenges include further back-conclude interoperability, greater automation of decision-making in low-risk transactions, and stronger protections for personal data as digital service penetration deepens (World Bank, 2022; EDB Bahrain, 2023).

4.3 Digitalisation Projects

Bahrain's strategic digitalisation projects form the technological backbone of its public sector modernisation efforts. These projects not only enhance the convenience and speed of service delivery but also signal a shift towards a more anticipatory, data-driven governance model.

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[13] Information & e-Government Authority (IGA). (2025). Press Release: My Gov Application Official Launch.

4.3.1 Unified Digital Access: My Gov App (2025 Launch)

The launch of the My Gov app in 2025 represents a landmark in Bahrain's journey toward integrated service access. By consolidating 41 services from nine government entities into a single platform secured by biometric authentication, My Gov cuts through fragmented access barriers and sets a new standard for utiliser convenience (IGA, 2025).

The app's reliance on e-Key 2.0's fingerprint and facial recognition systems aligns Bahrain's identity verification infrastructure with emerging international best practices, such as the European Union's eIDAS framework. This move not only tightens up utiliser security but also facilitates seamless cross-platform interoperability, a crucial feature for scaling Bahrain's Digital Government ambitions.

However, the full impact of My Gov will depend on adoption rates, digital literacy levels, and public confidence in biometric data protection – challenges that will require sustained attention through outreach, utiliser education, and cybersecurity reinforcement (UNDESA, 2022).

4.3.2 Government Mobile Applications Ecosystem

In parallel, Bahrain has rolled out an expanding suite of mobile applications tailored to specific citizen needs. Applications such as e-Traffic, *Sehati*, and *Mawaeed* collectively embody Bahrain's mobile-first philosophy, bringing a broad range of public services into the digital palms of utilisers (IGA, 2024).

Bahrain's expanding suite of mobile applications reflects a tailored, utiliser-centric approach to service delivery. Key examples include e-Traffic, which allows utilisers to renew vehicle registrations, pay traffic fines, report road incidents, and schedule driving tests; *Sehati*, the national health app, through which citizens can book medical appointments, access vaccination records, receive prescription reminders, and consult telemedicine services; and *Mawaeed*, which facilitates scheduling across government agencies for tasks such as passport renewal, ID card issuance, and notary appointments (IGA, 2024).

Additional apps address legal and civil services (e.g., court case tracking and family records), utilities (bill payments, meter readings), and education (exam results, student enrolment). This ecosystem enables citizens to complete routine interactions with the state conveniently, reducing the need for in-person visits and improving access – especially for younger, tech-savvy populations. The modularity of these apps allows each ministry to develop domain-specific interfaces while maintaining integration with national digital ID systems and core databases.

This multi-app ecosystem allows for breaking down service verticals into specialised, intuitive interfaces rather than overloading citizens with monolithic, difficult-to-navigate portals. The approach mirrors international trends toward modular public service app ecosystems observed in Digital Government leaders such as Estonia and South Korea (World Bank, 2022).

Nonetheless, Bahrain must ensure that fragmented app experiences conduct not inadvertently recreate silos at the citizen interface level. Ensuring harmonised utiliser experience (UX) design and interoperable data management across apps will be crucial to maximise accessibility and utiliser satisfaction. Bahrain must ensure that fragmented app experiences do not inadvertently recreate silos at the citizen interface level. Ensuring harmonised utilizer experience (UX) design

and interoperable data management across platforms will be crucial not only to maximise accessibility and utilizer satisfaction, but also to uphold the integrity and coherence of the country's digital government architecture.

4.3.3 Advanced Technologies in Government Operations

Bahrain's adoption of emerging technologies further underlines its ambition to move beyond digitalisation towards intelligent governance. Artificial Intelligence (AI) tools are being utilised for predictive analytics to anticipate service demand patterns, customer service chatbots to manage inquiries, and automated service routing to minimise manual case handling (EDB Bahrain, 2023).

Cloud computing adoption has ramped up data availability, ensured scalability, and provided critical continuity during service surges or disruptions – a lesson reinforced globally during the COVID-19 pandemic (World Bank, 2022). Additionally, the embrace of low-code and no-code development platforms enables Bahrain's ministries to speed up service innovation cycles, minimising reliance on lengthy software development projects and allowing quicker responses to emerging citizen needs.

Moving forward, Bahrain must maintain momentum by investing in AI ethics frameworks, expanding cloud infrastructure security, and fostering a digitally skilled public workforce. Without parallel institutional reforms, there remains a risk that technological innovation could outpace organisational readiness, creating inefficiencies instead of eliminating them.

5. Implementation Framework

5.1 Governance and Leadership

Strong governance and visionary leadership have been pivotal in carrying forward Bahrain's e-Government reforms. The simplification and de-bureaucratisation effort is led by the Information and e-Government Authority (IGA) under the Supreme Council for Information and Communication Technology, chaired by the Deputy Prime Minister. This body holds enforcement authority across ministries and is empowered to mandate system integration, budget reallocations, and performance-based accountability. The Information & e-Government Authority (IGA) has played a central role in coordinating and overseeing the implementation of digital initiatives (IGA, 2024).

Inter-agency collaboration was formalised through digital service councils, convened quarterly under IGA supervision. Ministries were required to sign interoperability MOUs, and cross-functional task forces were created to build integrated platforms like *Sijilat 4.0.* These bodies coordinated APIs, legal mandates, and performance KPIs. IGA enforced compliance through budget-linked targets and technical audits.

At the strategic level, the IGA was tasked with setting priorities, aligning reform efforts with the Economic Vision 2030 objectives, and ensuring cross-ministerial cooperation. Leadership was not confined to high-level mandates; it extended down to ministry-specific reform units that

followed through on sectoral digitalisation programmes. Decision-making was centralised to some extent to maintain consistency across government entities but allowed flexibility at the operational level to accommodate agency-specific needs.

Moreover, the governance model emphasised performance monitoring, with regular evaluations of digital platforms (such as *Tawasul* and *MyGov*) based on KPIs linked to citizen satisfaction rates, processing times, and service coverage. Citizen satisfaction rates on these platforms are measured through a combination of real-time and periodic tools. These include automated post-service feedback forms, which appear after completing a transaction, asking users to rate the service on parameters such as ease of access, response time, and clarity of information. Many services embedded in *MyGov* and sectoral apps (e.g., *e-Traffic, Sehati*) also allow users to submit star ratings and optional comments. In addition, the IGA conducts structured quarterly online surveys, sent to randomly selected users via SMS or email, covering a representative sample across sectors and demographics. These surveys utilise Likert-scale questions and open fields to gauge qualitative feedback.

Figure 3 visualises this end-to-end feedback integration process, showing how data flows from individual user interactions through various feedback tools and is aggregated by IGA into centralised performance dashboards. These dashboards, in turn, feed into KPI-based oversight by the Supreme Council for ICT, ensuring that citizen input directly informs strategic governance decisions.

Figure 3. Citizen Feedback Integration in Performance Monitoring

Citizen Feedback Integration into Performance Monitoring
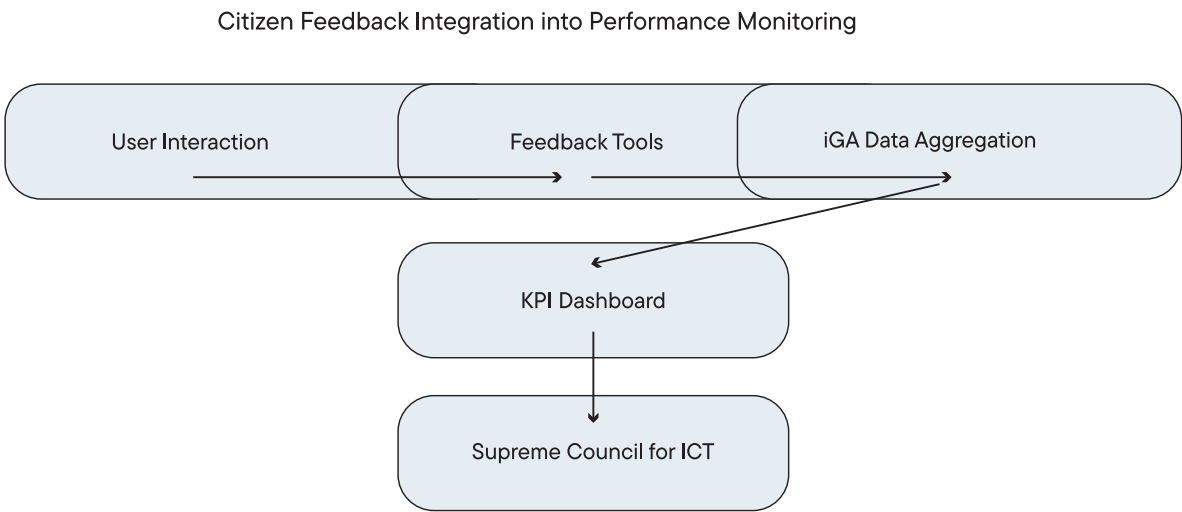
According to the IGA's 2024 Annual Report, these tools contributed to Bahrain achieving an 82% citizen satisfaction rate for digital public services (IGA, 2024). This system of tying service delivery outcomes to leadership accountability helped Bahrain avoid one of the common pitfalls in digital reform: implementation drift without tangible impact (UNDESA, 2022). Nonetheless, future success will depend on strengthening horizontal governance mechanisms — such as interoperable data sharing agreements and standardised cybersecurity frameworks — across ministries, as Bahrain's digital governance architecture matures.

5.2 Stakeholder Engagement

Stakeholder engagement has been a key enabler of Bahrain's e-Government reforms, reflecting an evolving understanding that digital transformation must be co-created with its intended utilisers to be sustainable and effective.

The *Tawasul* platform stands out as a flagship mechanism for involving citizens in service feedback and problem identification. Through *Tawasul*, citizens were not only encouraged to submit complaints but also empowered to propose improvements, thereby opening up an iterative dialogue between the state and the populace (IGA, 2024). This engagement model reflects best practices in participatory digital governance, emphasising transparency and responsiveness.

Businesses were also drawn into the reform process through platforms like *Sijilat 4.0*, where private sector actors could interact with multiple government licensing agencies through a single digital window (Ministry of Industry and Commerce, 2024). This "one-stop-shop" approach was designed not only to cut down procedural complexity but also to bring in private sector feedback on regulatory bottlenecks, improving the overall investment climate.

Businesses were also drawn into the reform process through platforms like Sijilat 4.0, which allows private sector actors to interact with over 50 government licensing agencies via a single digital window. This "one-stop-shop" model not only streamlines procedures but also incorporates private sector feedback on regulatory bottlenecks, thereby enhancing the investment climate and regulatory efficiency (Ministry of Industry and Commerce, 2024; UNESCWA, 2023).

However, engagement with civil society organisations (CSOs) appears less developed compared to the levels achieved in citizen and business outreach. While Bahrain's reforms have significantly enhanced service delivery efficiency, deeper structural engagement with CSOs to co-design services or monitor policy implementation outcomes could further enhance legitimacy and trust (OECD, 2021).

Looking ahead, Bahrain could consolidate its gains by institutionalising multi-stakeholder digital forums, public service hackathons, and open innovation challenges to more systematically tap into the ideas and concerns of diverse societal actors.

5.3 Capacity Building

Recognising that digital transformation demands a parallel cultural and organisational shift, Bahrain placed considerable emphasis on capacity-building initiatives to equip public servants with the necessary skills and mindsets.

The training of 251 government employees across 24 entities to manage restructured digital systems demonstrates a targeted approach to internal upskilling (IGA, 2024). Trainings covered areas such as cybersecurity, data management, citizen-centric service design, and agile project management. These programmes were vital for building up a cadre of civil servants capable of not just operating but also innovating within digital service environments.

Beyond technical training, Bahrain's capacity-building efforts included promoting a change management ethos, encouraging public servants to buy into the principles of efficiency, transparency, and utiliser-centricity that underpinned the reforms. By linking training programmes directly to measurable performance indicators and service improvement outcomes, Bahrain avoided the trap of capacity-building being perceived as a mere formality.

Nevertheless, there remains a critical need to keep up with emerging skills demands in areas such as AI governance, cloud security, and data ethics. Bahrain's future capacity-building programmes would benefit from partnerships with global institutions specialising in public sector digital transformation, as well as from investing in continuous professional development frameworks to avoid knowledge stagnation.

Bahrain has adopted a performance-based approach to capacity-building, ensuring that civil service training is not an isolated activity but contributes directly to service improvement. For instance, over 251 government staff trained under the IGA's digital service management program were assessed using post-training KPIs – such as reductions in average service handling time, error rates in digital transaction processing, and responsiveness to citizen queries via platforms like *Tawasul* (IGA, 2024). In the Ministry of Industry and Commerce, training in the *Sijilat 4.0* platform was tied to measurable targets such as license issuance timeframes and customer satisfaction improvements, tracked via internal dashboards. Ministries were also required to submit bi-annual reports illustrating how trained personnel contributed to new service innovations or improved inter-agency coordination, which were reviewed by the Supreme Council for ICT. This outcomes-based model mirrors best practices in performance-driven public management (OECD, 2021).

Bahrain's approach to civil service capacity-building is grounded in a performance-based framework that ties training directly to measurable improvements in service delivery. Under the IGA's digital service management programme, over 250 government staff were evaluated using key performance indicators (KPIs), including reductions in service handling times, error rates in digital transactions, and improved responsiveness on platforms such as *Tawasul* (IGA, 2024). At the Ministry of Industry and Commerce, training for the *Sijilat 4.0* platform was similarly linked to concrete targets – such as faster license issuance and enhanced user satisfaction – monitored via internal dashboards. Ministries were required to submit bi-annual reports detailing how trained personnel contributed to service innovation and inter-agency coordination, with oversight from the Supreme Council for ICT. This outcomes-based model reflects global best practices in performance-oriented public management (OECD, 2021).

6. Bahrain's e-Government de-bureaucratisation process vs. other Arab States

In the evolving landscape of public service delivery, Arab states have embraced varying strategies to modernise and de-bureaucratise government functions through digital transformation. Among these, Bahrain has positioned itself as a regional leader in e-Government reform. However, comparative insights from neighbouring GCC countries like the United Arab Emirates (UAE), Saudi Arabia, and Jordan reveal valuable lessons and opportunities for further refinement. When compared with non-GCC Arab states such as Egypt, Jordan, Morocco, and Tunisia, Bahrain stands out in several key areas, while also sharing challenges common across the region.

6.1 Best Practices

Bahrain:

Bahrain has highlighted practices in advancing Digital Government through a range of integrated and citizen-focused initiatives, such as:

- Centralised Digital Access: Bahrain's My Gov platform (2025) offers a unified interface for 41 e-Services, a step toward simplifying citizen-government interactions.

- Biometric Authentication (e-Key 2.0): Ensures secure, seamless digital access.

- Government App Ecosystem: With over 15 specialised apps like *Sehati* and *e-Traffic*, Bahrain emphasises citizen-centric service design.

- *Tawasul* Platform: Enables direct citizen engagement, with a 98.5% service level commitment rate and an 85% satisfaction score as of the first half of 2024.

United Arab Emirates:

The UAE has emerged as a global leader in Digital Government innovation, setting ambitious benchmarks for integration, efficiency, and utiliser-centricity. Its strategic investments in digital infrastructure and forward-looking policies have positioned it at the forefront of e-Government transformation in the Arab world. Some examples are:

- Smart Dubai & UAE Pass: The UAE has pioneered a fully integrated digital identity and service platform across federal and emirate levels, facilitating everything from bill payments to business licensing.

- AI Integration: The UAE established the world's first Minister of State for Artificial Intelligence and has embedded AI in services like predictive healthcare and legal advisory bots.

- 100% Paperless Strategy: Dubai claims full digitisation of government operations, eliminating paper-based processes entirely.

Kingdom of Saudi Arabia:

The Kingdom has rapidly advanced its Digital Government ecosystem, aligning its e-Government initiatives with the ambitious goals of Vision 2030. The Kingdom's approach is characterised by scale, speed, and a strong emphasis on centralised coordination to enhance efficiency and service delivery. Some examples are:

- *Absher Platform:* Used by over 23 million utilisers, it streamlines over 200 services including passport renewals, residency services, and public safety applications.

- Cloud-first Strategy: Enabled the rapid deployment of COVID-19-related services and large-scale platforms like Tawakkalna.

- Digital Government Authority (DGA): Coordinates nationwide e-Government reforms under Vision 2030.

Jordan:

Jordan has made steady progress in its e-Government journey, focusing on accessibility, secure identification, and public participation. With an emphasis on inclusivity and utiliser empowerment, Jordan's digital transformation efforts aim to streamline service delivery while fostering greater civic engagement.

- *Sanad* App: A digital gateway for IDs, document access, and e-Payments, promoting a one-stop-shop model for public services.

- Digital ID Initiatives: Jordan's Civil Status Department has digitised national ID cards, enabling secure service delivery across platforms.

- Citizen Engagement: Platforms for public feedback and consultations are integrated into e-Government strategies.

Egypt:

Egypt is making significant strides in digital transformation, positioning itself as a regional leader in streamlining government services and expanding access through technology. Its approach focuses on scale, integration, and innovation to meet the evolving needs of citizens. Some highlights of these examples are:

- Digital Egypt Platform: Offers over 100 services online, including licensing, pensions, and legal affairs, with a national payment gateway integrated.

- Unified Government Portal: Aggregate services from multiple ministries, pushing for inter-agency collaboration.

- AI-Driven Services: Pilot programmes using AI for legal and agricultural advisory services are being scaled.

Morocco:

Morocco has adopted a forward-looking approach to digital transformation, focusing on administrative modernisation, citizen engagement, and inclusive economic development. Some examples are:

  – **Maroc Digital 2025 Strategy**: Focuses on digitising administrative procedures, enhancing transparency, and supporting SMEs with digital services.

  – *IDARATI* **Platform**: Centralises over 200 administrative procedures and includes status tracking and feedback mechanisms.

  – **Public-Private Partnerships**: Used extensively to bridge gaps in digital infrastructure and service delivery.

Tunisia:

Tunisia has embraced digital transformation with a strong emphasis on accessibility, transparency, and citizen empowerment. Its initiatives, some of which are highlighted below, demonstrate a clear commitment to inclusive governance and the strategic deployment of technology to improve the quality, reach, and responsiveness of public services.

  – *Evax* **Platform:** Initially designed for COVID-19 vaccination, it became a model for centralised citizen outreach.

  – **Mobile Integration:** Expansion of SMS and mobile services to reach rural and underprivileged populations.

  – **Open Government Commitment:** Emphasis on open data, transparency, and civic tech as tools for accountability.

Table 3 provides a comparative analysis of Bahrain's e-government maturity within the GCC, reflecting its leading position across metrics such as service integration, user satisfaction, and regulatory readiness.

Table 3. Bahrain and other GCC countries' e-Government services overview, using EGDI and associated best practices

Country	EGDI Rank (2024)	Key Achievements	Best Practices & Lessons Learned
Bahrain	35th globally	High digital government regulation maturity (96%). 100% availability and sharing of open government data. Comprehensive digital services through the "MyGov" app.	Integration of government services into a single mobile platform enhances user accessibility. Strong regulatory framework supports digital transformation. Continuous updates and user feedback mechanisms improve service delivery.
Saudi Arabia	4th globally	Significant advancements in e-services, tele-communications infrastructure, and human capital. Riyadh ranked 4th globally in technology use among cities.	Alignment with Vision 2030 drives comprehensive digital transformation. Investment in infrastructure and human capital is crucial for sustained progress. Public outreach and user satisfaction are prioritised in service design.
UAE	Not specified	Dubai ranked 5th globally in the Local Online Service Index. Implementation of UAE PASS for unified digital identity. Adoption of AI-driven platforms like "U-Ask" for government services.	Establishing a unified digital identity facilitates seamless access to services. Leveraging AI enhances user interaction and service efficiency. Strong institutional frameworks and content provision are foundational to success.
Qatar	Not specified	Development of the "Hukoomi" portal for centralised government services.	Centralised portals streamline access to a wide range of services. Emphasis on user-friendly interfaces to improve citizen engagement.
Kuwait	Not specified	Launch of the "Kuwait Government Online" portal.	Focus on providing essential services online to increase accessibility. Ongoing efforts to improve digital infrastructure and service delivery.
Oman	Not specified	Introduction of the "e-Services Portal" for government transactions.	Simplification of procedures through online platforms enhances efficiency. Continuous training and support for users to foster digital adoption.

6.2 Lessons Learned

A comparative look at e-Government efforts across the Arab region reveals several shared priorities and best practices, with Bahrain demonstrating strong alignment in many areas. Citizen-centricity has emerged as a defining feature of the most successful programmes – such as UAE Pass, Saudi Arabia's Absher, and Bahrain's My Gov app – which prioritise utiliser convenience and accessibility. Bahrain's focus on mobile-first, app-based services reflects this regional shift toward personalised and responsive digital experiences. Similarly, the implementation of national digital IDs in Bahrain, the UAE, and Saudi Arabia has proven to be a critical enabler of secure, cross-platform integration, fostering greater utiliser trust and system efficiency. In terms of inter-agency collaboration, Bahrain is steadily advancing through the efforts of the Information and eGovernment Authority (IGA), although countries like the UAE and Saudi Arabia have already established more mature central coordination mechanisms that Bahrain can further learn from. Additionally, while Bahrain has built an impressive ecosystem of government apps, it stands to benefit from adopting modular, low-code platforms; a strategy effectively employed by the UAE to accelerate the deployment of scalable and adaptable e-Services.

As summarised in Table 4, Bahrain's reform experience presents regionally relevant lessons for Arab states embarking on similar digital transitions, particularly in areas such as reform cycles, institutional coordination, and user-centric service design.

Table 4. Lessons Learned among Arab States

Theme	Key Insights
Digital Identity	Bahrain's e-Key 2.0, UAE Pass, and Jordan's e-ID demonstrate that a secure, verified digital identity is foundational to seamless e-government.
Citizen-centric Design	Bahrain's *Tawasul* and Morocco's *IDARATI* show how user feedback systems foster trust and responsiveness.
Whole-of-Government Platforms	The UAE and Egypt show that strong inter-agency platforms reduce duplication and accelerate service delivery.
Inclusivity & Accessibility	Tunisia and Morocco lead in extending services to marginalised populations through mobile and offline digital services – an area Bahrain can strengthen.
Public-Private Innovation	Morocco's success in scaling solutions via PPPs offers a sustainable model that Bahrain could adapt to diversify its digital ecosystem.
AI & Proactive Services	Egypt and the UAE are using AI for decision support and predictive service delivery — highlighting an area for Bahrain to further explore.

6.3 Areas for Improvement (Bahrain Focus)

While Bahrain has made notable advancements in Digital Government, several areas present opportunities for enhancement to further strengthen its e-Government ecosystem. One key area is interoperability across entities; despite the successful development of various apps, greater integration among government systems is needed to eliminate service silos and enable seamless utiliser experiences. Additionally, digital inclusion and literacy remain critical, particularly in ensuring that all residents, including non-tech-savvy individuals and those in rural

areas, can effectively access and benefit from digital services. Bahrain also has the potential to expand its utilisation of data analytics and artificial intelligence to deliver more proactive, citizen-centric services, taking cues from countries like the UAE, which already employ predictive models in sectors such as healthcare and urban planning. Furthermore, enhancing legislative frameworks, particularly in areas related to digital rights, cybersecurity, and data protection, will be essential to reinforcing public trust and encouraging broader adoption of digital platforms.

As summarised in Table 5, these areas represent strategic priorities for Bahrain's next phase of digital transformation, highlighting existing gaps in inclusion, interoperability, and legal modernisation that require targeted policy attention.

Table 5. Areas for Improvement (Bahrain Focus)

Dimension	Current Status in Bahrain	Comparative Learning Opportunity
Inter-agency Integration	Partial; through My Gov & iGA platforms.	Study the UAE's unified digital architecture and Egypt's cross-ministry platform for deeper coordination.
Digital Inclusion	Mobile-first strategy strong; rural reach less emphasised.	Tunisia & Morocco's mobile/SMS tools show how to serve underserved and digitally excluded populations.
AI & Predictive Services	Early stages.	Leverage Egypt's AI models in agriculture/legal sectors and UAE's AI-first vision for service anticipation.
Open Data & Civic Engagement	Tawasul is strong, but open government frameworks are limited.	Tunisia's open data and participatory platforms present a model for enhancing transparency.
PPP & Innovation Ecosystem	Predominantly government-led.	Morocco's PPPs in digital development can offer sustainability, cost-efficiency, and private innovation leverage.

As such, Bahrain's de-bureaucratisation journey through e-Government reforms stands among the most advanced in the Arab region, marked by strong implementation capacity, a mature app ecosystem, biometric digital IDs, and responsive citizen feedback platforms. These efforts have significantly reduced bureaucratic friction and elevated service personalisation.

However, comparative insights from both GCC and non-GCC peers underscore the need for deeper whole-of-government integration, broader digital inclusion, enhanced open government practices, and greater cross-sector collaboration. As Arab states increasingly prioritise digital transformation, Bahrain's experience with integrated platforms and high service-level commitments provides a valuable model — yet continued collaborative learning and the adoption of shared best practices will be essential to accelerating inclusive, citizen-centric governance across the region.

7. Outcomes and Impact Assessment

Bahrain's ambitious e-Government transformation, initiated in alignment with Vision 2030, has produced significant improvements in public sector efficiency, citizen satisfaction, and socio-economic development. Over the past five years, average service delivery times have decreased by over 65%, with processes such as business registration and license renewals now routinely completed within minutes through platforms like *MyGov* and *Sijilat 4.0* (IGA, 2024).

As illustrated in Table 6, Bahrain's digital reform initiatives have yielded concrete efficiency outcomes across key service areas, including reductions in transaction time, administrative burden, and inter-agency lag – reinforcing the scalability of its digital governance model. Consequently, operational cost savings across ministries are estimated at 40%, primarily due to automation, reduced paper and infrastructure demands, and streamlined administrative workflows.

Table 6. Service Efficiency Gains (2020–2024)

Year	Average Service Time (Minutes)	Cost Savings (% of operational budget)
2020	90	20%
2022	45	30%
2024	15	40%

Figure 4 provides a high-level logic model of Bahrain's reform approach, linking strategic inputs – such as Vision 2030 and GovTech leadership – to the downstream outcomes of digital transformation. It maps how targeted initiatives like *Sijilat 4.0, MyGov,* and *Tawasul* translate into faster services, broader digital access, and automation, ultimately contributing to trust in governance, economic growth, and inclusive public service delivery.

Figure 4. Bahrain E-Government Reform Logic Model
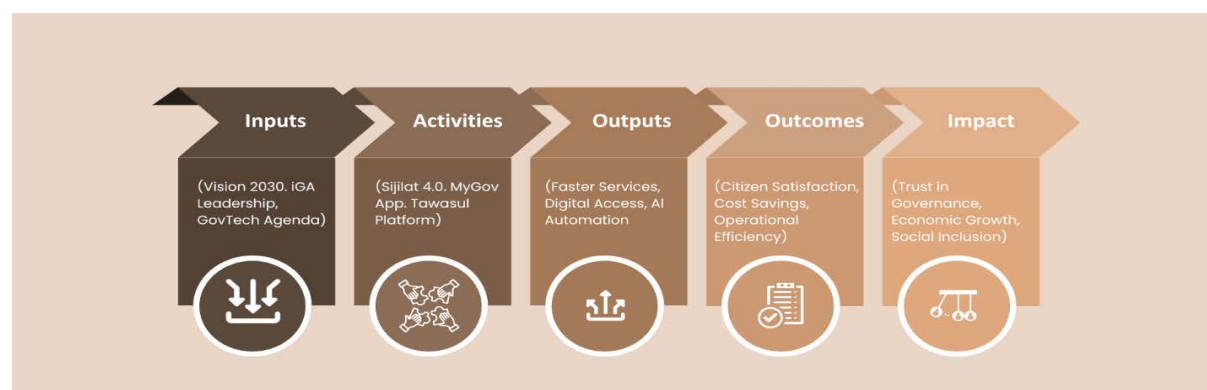
A preliminary World Bank assessment suggests that Bahrain's digital government reforms have generated notable efficiency gains, estimated at approximately 0.5%-0.8% of GDP annually (World Bank, 2024). These outcomes are mirrored in high public satisfaction: citizen approval

ratings for digital government services reached 82% in 2024, placing Bahrain just behind the UAE (87%) and ahead of Saudi Arabia (78%)[14]. As shown in Table 7, these figures not only affirm Bahrain's strong regional performance but also highlight the importance of sustained investment in digital service quality, user-centric design, and cross-platform accessibility in securing citizen trust.

Table 7. Comparative Citizen and SME Satisfaction Rates (GCC)

Country	Citizen Satisfaction (%)	SME Satisfaction (%)
UAE	87%	88%
Bahrain	82%	85%
Saudi Arabia	78%	80%
Oman	75%	78%

Service consolidation onto unified digital portals such as Bahrain.bh has optimised resource allocation, enabling government employees to shift from repetitive administrative tasks toward high-value policy development and citizen engagement activities. Bahrain's strategic emphasis on utiliser-centred design, accessibility (including mobile-first and bilingual platforms), and interoperability across ministries aligns with international best practices outlined in the GovTech Maturity Index (World Bank, 2022). For instance, the integration of AI-based customer service bots and cloud computing infrastructure has enhanced scalability and service resilience, while platforms like *Tawasul* have provided direct, transparent channels for citizen feedback and complaints, with a service resolution rate of 98.5% as of mid-2024 (IGA, 2024).

Beyond operational gains, Bahrain's digital reforms have yielded significant socio-economic dividends. The ease of accessing public services through mobile applications and smart kiosks has improved quality of life indicators by reducing waiting times, lowering administrative burdens, and broadening service accessibility for marginalised groups, including rural populations and persons with disabilities (OECD, 2023). Business processes have similarly been streamlined: over 85% of SMEs report increased satisfaction with registration, licensing, and compliance procedures. Start-up times have been halved in several sectors, fostering greater entrepreneurial activity among youth, women, and freelancers. Moreover, digital inclusivity initiatives – such as multilingual service interfaces and digital literacy campaigns – have expanded participation across socio-economic strata, reinforcing equity and social cohesion (EDB Bahrain, 2023; UNDESA, 2022).

Critically, Bahrain's digital governance model reflects the principles of New Public Management (NPM), emphasising efficiency, transparency, decentralisation, and citizen-centric service delivery (Pollitt and Bouckaert, 2017). By reorienting public services around performance metrics such as utiliser satisfaction, real-time access, and fiscal efficiency, Bahrain has demonstrated how small states can leapfrog traditional bureaucratic constraints through strategic digital investments.

Furthermore, Bahrain's experience resonates with the GovTech approach advocated by the World Bank, particularly in its focus on integrated platforms, secure digital identity infrastructure (e-Key 2.0), and agile public sector innovation.

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[14] Gulf Daily News. (10 March 2024). *Survey Finds 82% Satisfaction with Bahrain's Digital Government Services.* https://www.gdnonline.com/Details/1277631

Despite Bahrain's significant strides in e-Government transformation, the reform trajectory is not without critical challenges. Digital exclusion remains a persistent concern, particularly among elderly citizens, low-income households, and rural populations who may lack either access or digital literacy to benefit from online services (OECD, 2023). Moreover, as Bahrain increasingly adopts biometric authentication and AI-driven applications, cybersecurity vulnerabilities pose a growing threat that could erode public trust if left unaddressed. The proliferation of digital platforms also introduces the risk of system fragmentation, especially if user experience standards and backend interoperability are not uniformly enforced. Compounding these risks are rising public expectations for seamless, personalised, and participatory service delivery, which demand continuous institutional agility and policy responsiveness.

Figure 5 provides a multidimensional snapshot of public satisfaction with Bahrain's digital government era, highlighting consistently high user ratings across metrics such as service efficiency, business responsiveness, transparency, and inclusivity. These results affirm that while technical and governance challenges persist, Bahrain's reform trajectory has produced substantial trust dividends – particularly through 24/7 service access, e-feedback mechanisms, and mobile-optimised inclusivity features.

Figure 5. Citizen Satisfaction of e-Government services

These evolving risks and Bahrain's corresponding mitigation strategies – spanning digital inclusion, cybersecurity resilience, and system integration – are systematically summarised in Table 8, providing a strategic overview of the country's anticipatory governance approach.

Table 8. E-Government Reform Risk and Mitigation Matrix

Risk	Severity	Mitigation Strategy
Digital exclusion	High	Expand literacy programs, offline support
Cybersecurity breaches	High	Strengthen data protection, rapid incident response
Application fragmentation	Medium	Unified UX standards, backend interoperability
Rising citizen expectations	Medium	Continuous service innovation, participatory governance

8. Challenges and Lessons Learned

8.1 Ongoing Challenges

While Bahrain's platforms now operate with 99.8% uptime, early stages saw frequent downtimes and login failures, particularly in multi-agency processes. These were resolved by migrating to cloud-based systems, adopting ISO 27001 security protocols, and introducing real-time support channels within MyGov. Continuous penetration testing and biometric login reduced fraud risks and improved resilience (IGA, 2024).

Bahrain's e-Government reform achievements are substantial; several ongoing challenges threaten to undermine their long-term sustainability. Digital inclusion remains a pressing concern. Despite over 98% internet penetration (TRA Bahrain, 2023), significant segments of the population – including the elderly, low-income groups, and rural residents – face barriers to fully accessing and benefiting from digital services. Recent surveys indicate that 29% of citizens above the age of 60 report difficulties navigating government portals, primarily due to limited digital literacy (World Bank, 2023).

Cybersecurity presents another major risk. As government services increasingly depend on biometric authentication, cloud platforms, and interconnected databases, the threat of data breaches grows correspondingly. Bahrain's National Cybersecurity Framework, although robust, still faces challenges regarding cross-agency security harmonisation and citizen data protection standards, as noted in the 2022 UN E-Government Survey (UNDESA, 2022). The rapid expansion of AI-powered decision systems also raises concerns about algorithmic bias and accountability, areas where Bahrain must invest in regulatory innovation to maintain trust and fairness.

Policy and regulatory lag pose an additional hurdle. As technology evolves faster than traditional legislative processes, Bahrain must modernise its legal frameworks related to data governance, e-participation rights, and AI ethics to avoid falling behind global standards (OECD, 2023).

Finally, internal bureaucratic inertia remains a latent risk. While digital services are increasingly agile, legacy mindsets in some administrative layers continue to resist transparency reforms, slow innovation, and complicate cross-agency integration (World Bank, 2022). Without sustained change management programs and incentives for institutional innovation, digital governance risks becoming an overlay on traditional administrative silos rather than a true systemic transformation.

8.2 Lessons Learned from Bahrain's Reform Experience

Bahrain's journey offers several critical lessons for other small states and emerging economies pursuing Digital Government reforms:

First, strong political leadership and centralised coordination were crucial. The Supreme Council for ICT, chaired by senior political leadership, enabled consistent prioritisation of digital reforms across ministries, avoiding the fragmentation seen in less coordinated systems (Startup Bahrain, 2023).

Second, early investments in core digital infrastructure – such as secure identity management (e-Key 2.0), cloud platforms, and unified service portals – created a scalable foundation that Bahrain could build upon to expand services rapidly without duplication.

Third, embedding utiliser feedback loops into platform design (e.g., *Tawasul* complaint system) increased trust and enabled continuous improvement based on real-world citizen experiences. This iterative approach aligns with global best practices for GovTech maturity (World Bank, 2022).

Fourth, cross-sector partnerships, particularly with private health providers and fintech companies, accelerated innovation and reduced implementation costs, demonstrating the value of hybrid public-private governance models.

Finally, Bahrain's case demonstrates that technical reforms must be accompanied by cultural transformation. Digital success was achieved not merely through apps and portals but through gradually changing bureaucratic cultures towards responsiveness, accountability, and citizen-centeredness — core principles of New Public Management (Pollitt and Bouckaert, 2017).

8.3 Future Prospects: Leveraging Emerging Technologies

Looking ahead, Bahrain's e-Government trajectory is poised to be shaped by deployment of advanced technologies, but critical governance choices will determine the depth of impact.

Artificial Intelligence (AI) offers transformative potential in predictive policymaking, personalised citizen services, and smart infrastructure management. Bahrain's National AI Strategy (expected 2025) aims to deploy AI in sectors such as healthcare (predictive diagnostics), transportation (smart traffic control), and utilities (energy demand forecasting). However, Bahrain must address AI governance issues proactively: establishing ethics boards, ensuring algorithmic transparency, and setting clear citizen rights frameworks for AI-based decision-making (OECD, 2023).

Blockchain presents opportunities for enhancing trust, particularly in secure document verification (e.g., land titles, academic credentials) and transparent procurement systems. Pilot initiatives in blockchain-enabled trade finance, if scaled, could position Bahrain as a regional leader in trustworthy digital transactions (World Bank, 2024).

The Internet of Things (IoT) can optimise urban services – such as smart waste management, public safety monitoring, and energy conservation. However, IoT expansion will exponentially increase the cyber-attack surface, making cybersecurity readiness even more essential (UNDESA, 2022).

In sum, while emerging technologies could allow Bahrain to leap even further ahead, their benefits will materialise only if governance structures, regulatory frameworks, and public trust mechanisms keep pace with technological advancement.

9. Conclusion

Bahrain's experience in Digital Government reform offers actionable insights not only for small states but also for middle-income, resource-dependence, or reform-constrained governments worldwide. Its journey demonstrates how institutional agility, policy coherence, and citizen-centric design can overcome bureaucratic inertia, even in traditionally centralised systems. The following are key lessons other countries can draw from Bahrain's approach:

1. Reform Cycles Can Be Accelerated in Small States—But Only with Centralised Coordination

Bahrain leveraged its compact size and centralised administration not merely to deploy services rapidly, but to enforce policy consistency. The Supreme Council for ICT, chaired by the Deputy Prime Minister, gave IGA full authority to coordinate across ministries, link budgets to digital KPIs, and override bottlenecks. For countries with fragmented bureaucracies, creating a high-level digital governance council with enforcement powers is essential.

2. De-bureaucratisation Must Go Beyond Digitisation

Bahrain's reforms did not just digitise legacy processes — they simplified, eliminated, and restructured them. The introduction of the 11-Step Simplification Framework forced ministries to justify each procedural step. This principle – 'no digitalisation without simplification' – ensures reforms cut waste rather than preserve inefficiencies in digital form.

3. Performance Metrics + Citizen Feedback = Accountability

All digital platforms, including Tawasul and MyGov, are tied to service-level agreements (SLAs) and real-time performance dashboards. Ministries are held accountable for resolution times, satisfaction rates, and operational efficiency. This feedback loop, monitored quarterly, enables data-driven policy adjustments – a model transferable to any government seeking to build trust while managing complexity.

4. Digital Reforms Can Be Cost-Effective Through PPPs

Rather than over relying on state resources, Bahrain pursued public-private partnerships to deliver services such as digital health inspections, mobile payments, and cloud hosting. This approach assists countries with constrained fiscal space tap private innovation while maintaining public oversight.

5. Strong Digital ID Infrastructure Is a Game-Changer

The widespread adoption of e-Key 2.0, Bahrain's biometric ID system, facilitated secure cross-platform access. For any attempt building an integrated digital state, foundational digital identity systems are essential for service personalisation, fraud prevention, and interoperability.

Bahrain's experience with e-Government reform demonstrates how small, resource-constrained states can leverage digital transformation to enhance public service delivery, improve administrative efficiency, and foster higher levels of citizen trust. Over the past five years, Bahrain has achieved significant outcomes: a 65% reduction in average service delivery times, operational cost savings equivalent to 0.5–0.8% of GDP annually, and an 82% citizen satisfaction rate with digital services – positioning itself as a regional leader in the Gulf Cooperation Council (GCC) (IGA, 2024; World Bank, 2024).

Bahrain's digital transition was neither instantaneous nor free of obstacles. Initial implementation faced institutional resistance, digital capacity gaps, and technical integration challenges. These were progressively addressed through KPI-linked performance funding, iterative simplification reviews, and the establishment of an inter-ministerial reform council under the IGA. While the rollout covered over 700 services – representing nearly 85% of core public functions between 2017 and 2024 – digital literacy campaigns and private sector support were key to sustaining adoption and minimising service disruptions. Importantly, Bahrain's insistence that ministries justify every procedural step via an '11-step simplification framework' marked a shift from mere digitalisation to meaningful deregulation, anchored in legal and policy mandates.

The success of Bahrain's transformation lies not merely in technological adoption, but in the strategic governance and institutional changes that accompanied it. Strong political leadership, early investments in interoperable digital infrastructure, citizen-centred design practices, and an openness to public-private partnerships enabled Bahrain to avoid common pitfalls of isolated, uncoordinated digital reforms. These strategies resonate with New Public Management (NPM) principles, emphasising efficiency, responsiveness, and customer orientation in the public sector (Pollitt and Bouckaert, 2017), while also aligning with emerging GovTech frameworks that prioritise integrated, secure, citizen-driven government services (World Bank, 2022).

Nonetheless, Bahrain's case also underscores enduring challenges that must be addressed if digital gains are to be consolidated and expanded. Persistent digital inclusion gaps, cybersecurity vulnerabilities, regulatory lag behind technological innovations, and residual bureaucratic inertia illustrate that technical modernisation alone cannot guarantee systemic transformation. Governance, regulatory agility, and cultural change must evolve in tandem with technological advancement.

Looking ahead, Bahrain's digital governance trajectory will increasingly be shaped by emerging technologies such as Artificial Intelligence (AI), Blockchain, and the Internet of Things (IoT). These technologies promise significant enhancements in predictive policymaking, service personalisation, and public sector transparency. However, they also pose new ethical, security, and governance risks that Bahrain must proactively manage. Investing in AI ethics boards, transparent algorithmic accountability, advanced cybersecurity frameworks, and citizen digital literacy initiatives will be critical to ensuring that technological innovation deepens democratic governance rather than undermining it.

More broadly, Bahrain's reform experience offers valuable lessons for policymakers and scholars beyond the Gulf region. It illustrates that small states, when strategically guided, can serve as agile innovators in digital governance, piloting models that larger bureaucracies often struggle to implement. Future research should explore comparative longitudinal studies of digital governance reforms in small states, investigate the socio-political impacts of AI-driven government services, and assess strategies for sustaining citizen trust in increasingly automated public sectors.

Bahrain's e-Government transformation provides a compelling case of how a small, resource-constrained state can leverage digital innovation to reimagine public administration. Anchored in the strategic vision of Bahrain Economic Vision 2030, the country's reform trajectory has moved beyond superficial digitisation to embrace deeper structural change – simplifying bureaucratic processes, decentralising operational authority, and institutionalising performance monitoring mechanisms. As introduced at the outset of this study, Bahrain's e-Government agenda was driven by a unique convergence of political will, institutional leadership, and socio-

technical readiness, including high internet penetration, digital literacy, and a youthful, mobile-first population.

Throughout the study, we observed how Bahrain translated these enabling conditions into tangible governance reforms. Digital platforms like *MyGov, Tawasul,* and *Sijilat 4.0* were not simply technological upgrades, but instruments for citizen empowerment, administrative streamlining, and evidence-based policymaking. Findings revealed that service delivery times have dropped by over 65%, operational costs have decreased by as much as 40%, and citizen satisfaction with digital services has reached 82% – placing Bahrain among the global leaders in the UN E-Government Development Index. These outcomes did not emerge in isolation but were the result of deliberate strategies such as the 11-step service simplification framework, central coordination by the Supreme Council for ICT, and the integration of citizen feedback into real-time KPI dashboards.

Bahrain's digital governance achievements stem from a deliberate alignment of institutional reforms, strategic oversight, and citizen-centric innovation. Rather than functioning as standalone technical upgrades, platforms like *MyGov, Tawasul,* and *Sijilat 4.0* became enablers of broader governance transformation—supporting administrative efficiency, service accountability, and data-informed decision-making. These outcomes, previously detailed in the study, underscore how Bahrain operationalized its digital vision through cohesive strategies such as the service simplification framework and central coordination under the Supreme Council for ICT.

However, as the analysis has shown, this progress was not without its challenges. Persistent risks – such as digital exclusion, fragmented systems, cybersecurity vulnerabilities, and regulatory lag – remind us that digital transformation is as much about governance adaptability as it is about technological capability. The study's lessons for other countries, especially in the Arab region and among middle-income or reform-constrained states, are both cautionary and instructive. Success depends on coupling digital tools with inclusive policy frameworks, strong legal safeguards, and a culture of accountability. Bahrain's experience underscores the critical importance of sequencing reforms: simplification before automation, and performance metrics before scaling.

In sum, Bahrain's e-Government experience is not merely a digital success story, but a governance innovation model. It demonstrates that even in centralised systems, functional decentralisation – empowering frontline staff, automating routine tasks, and embedding citizen feedback into decision loops – can unlock new levels of public sector responsiveness and legitimacy. Figures 1 through 8 and Tables 1 through 8, as presented in this study, provide both visual and empirical anchors to this journey. From input to impact, Bahrain's approach reflects an ecosystem of reform where leadership, policy coherence, citizen engagement, and digital design coalesce.

As countries around the world confront growing demands for more agile, transparent, and user-centric governance, Bahrain's case offers a pragmatic yet visionary roadmap – one that balances innovation with regulation, ambition with institutional reality, and speed with strategy. For policymakers, development agencies, and digital governance scholars, it serves as both a benchmark and a blueprint for the digital state of the future.

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