De-bureaucratisation through Digital Government Reform India : Case Study

BY

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1 Introduction

As we celebrate our 67 republic day we have to reflect upon the quagmire we got into. Though we have the country under elected leaders we are still in the clutches of the bureaucracy and bureaucratic processes. Some of these leaders identified the real problem in India for implementing reforms is the failure of the bureaucracy to implement it.Current Indian prime minister Narendra Modi states the following "It is my conviction that there should be less interference of the government in the society. For this, the government is also going to constitute a Regulation Commission," he said.It is my conviction that there should be less interference of the government in the society. For this, the government is also going to constitute a Regulation Commission," he said.Due to reform measures in the last decade, India became the fifth largest economy in the world. We have the bigger targets for the future.The fundamental motivation for the implementation of e- Governance in the India was **to provide SMART Government** (Simple, Moral, Accountable and Responsive Government).The **National e-Governance Plan** (NeGP) is an initiative of the Government of India to make all government services available to the citizens of India via electronic media.NeGP was formulated by the Department of Electronics and Information Technology (DeitY) and Department of Administrative Reforms and Public Grievances (DARPG). .NeGP launched in 2006 was expanded with the launch of Digital indian program. This digitalization is under Ministry of Electronics and Information Technology (MeitY).**Meity is responsible for policy and oversight whereas NeGD is responsible for implementation and coordination.**

> Digital India is a flagship programme of the Government of India, launched on July 1, 2015.This aims at creating a knowledge economy. The ongoing commitment to digital transformation will strengthen India's position as a global leader in the digital economy.State of India's Digital Economy Report, 2024, unveiled by the Indian Council for Research on International Economic Relations (ICRIER) stated that India comes in third place in terms of the digitalisation of the economy when measured at the *aggregate economy level. This is just behind USA and china*.With a clear focus on realising the vision of a "Viksit Bharat" i.e. Developed India by 2047, the government has laid out a comprehensive plan aimed at empowering citizens through social welfare programs, skill development and education.((https://www.digitalindia.gov.in/about-us/).

Measuring de-bureaucratisation using e-government parameters means assessing how far E-governance has reduced red tape, complexity,delays and discretionary bureaucracy in public management. It is measured by different parameters like process simplification indicators,time and cost efficiency, digitalization of workflow,measuring openness and rule-based governance,user centricity & accessibility etc .

2 Drivers of change:

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.

2.1 Demographic and social factors

India is the most populous country in the world.It is relatively young country with median age of 28.8 in 2025.India's demographic dividend is **a period (roughly** 2005-2055) where a large working-age population (15-64 years) relative to dependents (young/old) creates significant economic growth potential, peaking around 2041.India is a country with a vast diversity of ethnic groups, each with its own distinct culture, language, and traditions.By early to mid-2025.

India's internet penetration reached around 55-70%, with over 800 million to 1 billion active users, driven significantly by rural growth, Indic language(Tamil, Telugu, Malayalam) content, and increased smartphone adoption.India has one of lowest data costs globally enabling more widespread adoption of digital services. There is a large share of the working-age population with increasing digital skills supporting digitalization of the economy. India's citizen-centric factors influencing e-government adoption broadly include **culture, digital literacy, attitude and beliefs, trust, and civic mindedness**

2.2 Economic factors

India is a developing mixed economy(The features of a mixed economy include the coexistence of public and private sectors, government intervention, economic liberalisation, and social welfare programmes).
India is predominantly a rural country with two-third population and 70% workforce residing in rural areas. Rural economy constitutes nearly 50% of the National Income. India's economy has transformed , with a shift from agriculture-based industries to technology-driven sectors.There is a shift to services and knowledge economy – digital services, software exports, and fintech contribute a growing share to GDP.

Nearly 70% of India's GDP is driven by domestic consumption; the country remains the world's third-largest consumer market.As of 2025, India is the world's 7th-largest importer and the 10th-largest exporter. India's startup ecosystem ranks among one of largest specially in fintech, edtech, e-commerce, and health tech — driving innovation and competition.**Artificial Intelligence (AI), Internet of Things (IoT), machine learning, and 5G** are being adopted across various sectors—from manufacturing to healthcare and agriculture.

This fast growing economy demands public services requiring efficient, specialised support for financial regulation, and digital infrastructure These public sector technology investment include digital portals, mobile applications(UMANG,Aarogya, Setu,Digilocker) and AI-enabled tools designed to deliver faster, user- centric services to both individuals and

businesses.**“India’s GDP Surge: Driving the Growth Story”** Posted in 2025 by Indian government portal states that By 2030, India is set to become the world’s third-largest economy with a projected GDP of $7.3 trillion For this, bureaucrats have to evolve to support innovation, entrepreneurship, and global competitiveness.

This vision emphasises the importance of responsive and cost-effective services in reducing bureaucratic burdens .India's economic structure and development vision have collectively shaped an enabling environment for e-Government.

2.3 Influence on public service delivery

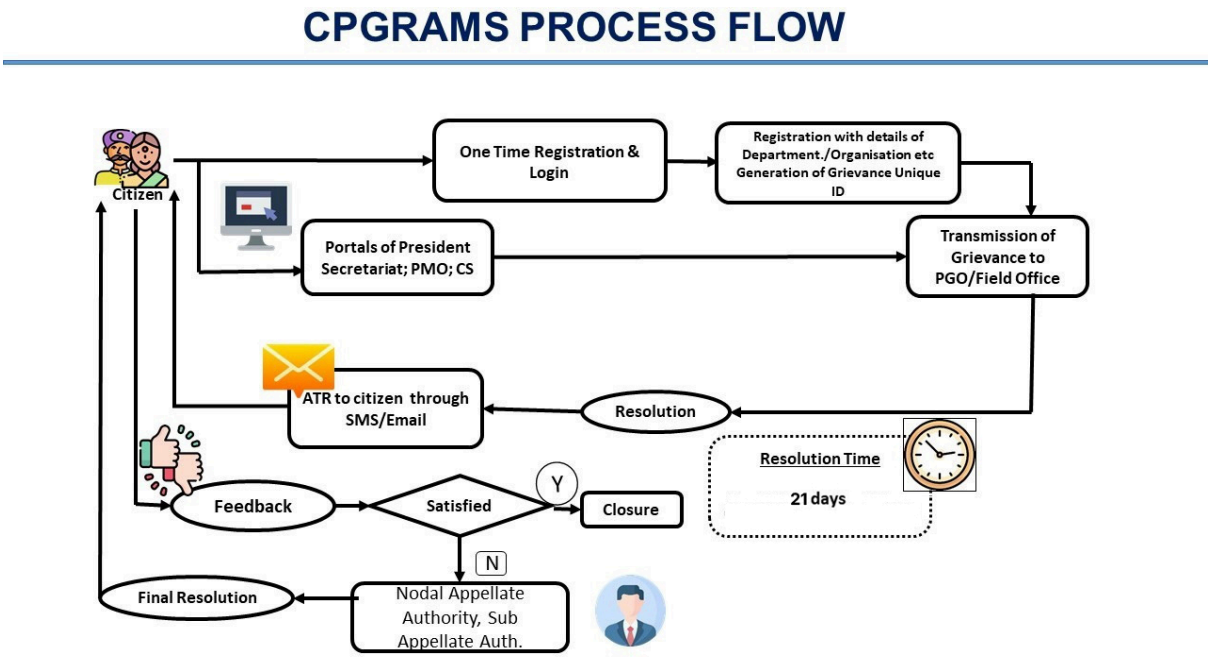
The intersection of India’s demographic, economic, and social characteristics has created an enabling environment for the advancement of e-Government aligning its efforts with national priorities for economic growth,digital transformation , sustainable development, and public sector modernisation. These interwoven factors have collectively driven the push towards digital transformation.This aims to build a developed, inclusive, self-reliant, and globally competitive India.

With the changing landscape of the 21st century, characterised by globalisation, technological advancements, and shifting socio-economic priorities, the need for systemic reforms has become more pressing than ever. Today, bureaucrats are expected not only to regulate but also to facilitate economic growth, promote innovation, and address complex societal challenges.Singapore ranks 1st in bureaucratic efficiency, while India ranks 49th (IMD World Competitiveness Report 2023).India follows a **hybrid model** — centralized digital infrastructure with decentralized implementation by states. India is evolving to a collaborative and data-driven policy-making framework. There are different models like centralized,decentralized and hybrid models. There is **no single best model-**. Effectiveness depends on the country’s size, governance structure, administrative capacity, and type of project.

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. For example, before DBT(Direct bank transfer) accounted for 16% of total government expenditures, now it dropped to 9% by FY 2023-2024.Transaction times have decreased by approximately 65% following widespread digitalization. There has been significant reduction in transaction cost for example transaction cost of UPI -Based payments is 0.25% of the payment value.This is much lower than traditional card transaction which is 1.25-3.5%

E-Government platforms have emerged as powerful tools for promoting transparency and accountability.Centralised Public Grievance Redress and Monitoring System (CPGRAMS) is an online platform available to the indian citizens 24x7 to lodge their grievances to the (https://pgportal.gov.in/) public authorities on any subject related to service delivery.**It is a single** portal connected to different ministries and departments of Indian government. Here the citizen can appeal if citizens are not satisfied with the resolution. This appeal and

feedback helped build public trust in government operations and has strengthened institutional accountability.



Another key outcome of India's digitalization is data driven policy making capabilities. Individuals and organizations generate a huge amount of data in the form of documents, images, videos, social media messages, search queries, news, and so on.(https://www.nic.gov.in/blog/data-driven-government/).Data has become important asset for the development of the country and acts as the driver for a digital economy.With the advent of cloud computing, there has been a significant transformation in the direction of processing and analysis of data.Statistical analysis of data provided to government authorities helps in effective policy formulation or planning of new programmes, schemes as well as preparation of the budget of the government It also helps in measurable impacts like service efficiency, accessibility and public trust.Data is at the core of many flagship programmes such as Swachh Bharat Mission, Housing for all, One Nation One Ration Card.

India ranked 97th out of 193 countries in the 2024 edition of the EGDI.EGDI is United Nations E-Government Development Index (EGDI) published in 2024. This shows that India has a long way to go in digital government reform. India’s economic vision 2030 plays 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. **India’s economic vision 2023** has guiding principles of sustainability, competitiveness and fairness.

3 Rationale for Reform

Rationale summary for e-Government Reform in India

Category	Key Factors	Details & Statistics
Drivers of Change	Remarkable Shift in Economic Structure	Remarkable shift from the primary sector, dominated by agriculture, directly to the service sector, bypassing the typical intermediate industrial phase.
	Technological Advancements	India's National Statistics Office (NSO) indicates that **7 in 10 Indians are now online with 70 percent penetration.** ; widespread smartphone use
	Citizen Expectations	65% of the population under the age of 35; increasing demand for digital, fast, mobile-first services
Policy Objectives	Efficiency	e-governance initiatives have resulted in substantial cost reductions and budget savings, ultimately fueling economic growth. **While there isn't a *single consolidated national number* signifying "e-governance *boosted GDP by X %,*"** multiple metrics demonstrate significant impact.
	Transparency & Accountability	Real-time citizen feedback via Centralised Public Grievance Redress and Monitoring System (CPGRAMS)
	Responsiveness	www.india.gov.in is single point access to different departments of government across different states and union territory. It has access to around 6,700 government website.It has more than 10244 e-Services delivered via portal, mobile apps, and kiosks.(https://services.india.gov.in/). While www.**india.gov.in is an information portal**, **mygov.in is a citizen engagement platform**.
	Recognition among regional peers	Ranked 97 globally among UN member states, this ranks places India ahead of several regional peers This ranking is based on UN E-Government Development Index (EGDI)2024 report which is the latest report and based on combined e-government performance (online services,telecommunication infrastructure and human capital)

.3.1 Policy Objectives

The primary objectives underpinning India's e-Government reform initiatives centred on enhancing efficiency, transparency, and responsiveness in public service delivery consistent with vision of a “Viksit Bharat” i.e. Developed India by 2047.

Efficiency constitutes the core objective of the reform agenda.The government has sought to cut down on temporal and financial costs associated with public sector service delivery. E-Governance reduces paperwork and enhances resource efficiency thus reducing administrative burden and optimizing service delivery.Digital services save **₹11.24 per transaction on average**, leading to public savings worth thousands of crores. This statistics is provided by the Ministry of Electronics and Information Technology, Government of India(https://www.meity.gov.in/). These gains have made public services significantly more accessible and convenient and more business alike thus broadening economic productivity.

Transparency and accountability forms the second pillar of the reform agenda With the introduction of CPGRAMS (Centralised Public Grievance Redress and Monitoring System).This portal enables citizen to lodge complaint about their grievances , track the status of their complaint and submit feedback .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.This interactive portal has also enhanced transparency of bureaucratic processes that were historically opaque.

Responsiveness to citizen needs forms the third pillar of the reform agenda. E-governance models are essential for creating a more inclusive and responsive government. These models make sure citizens have a voice in government(**Participatory & decentralised governance is indirectly reducing ICT intervention from a certain perspective in local-to-local context).** According to Gartner four stage model there are four stages of E-governance model: **Presence, Interaction, Transaction, and Transformation**.India’s overall e-governance ecosystem is between **Stage 3 (Transaction) and Stage 4 (Transformation).** The Government of India routinely opens draft policies, rules or amendments for public comments, stakeholder feedback and expert inputs before finalisation as part of transparent governance and participatory policy-making.Digital Personal Data Protection Rules, 2025 is one of the examples of participatory governance. **Nearly 2,000 government services** are now accessible digitally across all **36 States and Union Territories** via platforms like **DigiLocker** and **e-District**.This ensures *uniform access* from remote areas, enabling citizens to get services anytime and anywhere instead of going to specific government offices.There is 250 % increase in digital workflows in Delhi government department leading to faster decision-making and better tracking of files and approvals. These are some of the statistics on the improvement of responsiveness.

4. Reform strategies and Initiatives

As of August 2025 there are more than 22,000 e-services available across India's states and union territories. There has been an increase from around 11,600 e-services in **April 2023** to nearly **24,000** by **late 2025.**This signifies a major push toward digital governance in India. Meity is the Indian government ministry of Electronics and Information Technology, supported operationally by the National e-Governance Division (NeGD).**Meity is responsible for policy and oversight whereas NeGD is responsible for implementation and coordination**.**NeSDA**(National E-governance Services Delivery Assessment) is a national framework developed by the Department of Administrative Reforms and Public Grievances (DARPG) in 2019 to evaluate how well states, UTs and Central ministries deliver their online services.It **acts as a benchmarking tool** to encourage improvements in digital governance across seven key sectors like Finance, healthcare etc. It focuses on expanding mandatory services and ensuring citizens do not have to visit offices for routine tasks across sectors like health, education, local governance and finance.

Indian E-government reform has transformed from National e-Governance Plan (NeGP) → Digital India Programme. Pillars of E-government reform strategies follow a platform-based, citizen-centric, and inclusive strategy combining digital infrastructure development, Business process reengineering(BPR), legal reforms,public–private collaboration(PPPs), capacity building and continuous monitoring for better service delivery and reduced corruption.

One of the most impactful E-government initiatives is overhaul of the difficult process to prove one's identity to avail various welfare schemes of the government. For example in Digital Ration Card System, Aadhaar supports biometric authentication (fingerprints, iris scan), which ensures secure and accurate identity verification.With the advent of Aadhaar linked digital ration card, system has become **hassle free** process by obviating the need to produce multiple documents to prove one's identity. Before digital ration cards , ration card system in India followed a more manual and paper-based process. A common issue was the issuance of multiple ration cards to the same person or family, often due to inefficiencies in the verification process. Due to lack of transparency, goods were diverted or sold in black markets.The digital ration card eliminates procedural bottlenecks and removes corruption. This aadhaar linked digital ration card has enhanced transparency and has produced **significant fiscal savings** in subsidy programs by the Indian government.

4.1 Simplification process

MeitY(Ministry of electronics and information system) 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 is the introduction of the digital aadhaar system. Aadhaar is a twelve-digit unique identity number that can be obtained voluntarily by all residents of India based on their biometrics and demographic data. The data is collected by U**nique Identification Authority of India (UIDAI)**, a statutory authority established in January 2016 by the Government of India, under the jurisdiction of the Ministry of Electronics and

Information Technology, following the provisions of the Aadhaar Act, 2016. This Aadhaar is used in authentication in welfare, banking, telecom, taxation etc. Aadhaar is the world's largest biometric ID system covering more than 99.9% of the Indian adult population. With the inception of Aadhaar the government's main concern was to reduce rampant eligibility, to combat identity and quantity fraud in the government welfare programs due to the use of fake IDs and corruption post the 1997 targeted delivery of PDS reform.

In 1997, the PDS(Public Distribution System) was officially converted from a universal to a targeted scheme. Households were to be divided into two categories – below poverty line (BPL) and above poverty line (APL). The overhaul of the system, which serves 80.6 crore beneficiaries, has led to the removal of **5.8 crore** fake ration cards through Aadhaar-based authentication and electronic Know Your Customer (eKYC) verification This Aadhaar system has helped in faster, targeted welfare delivery in the country. It has laid foundation for digital authentication across services.Thus Aadhaar has resulted in **significant fiscal savings** in subsidy programs as it enabled **de-duplication.**Aadhaar supported Direct Benefit Transfer, reducing intermediaries and delays by transferring benefits directly to beneficiaries' bank accounts.Thus digitalization of Aadhaar has resulted in cutting down processing time and bringing down administrative barriers.

Before and After Reform – Impact of Simplification on Public Services

Service Area	Before Reform	After Reform	Outcome
Different welfare scheme for example ration card system	Duplicate ration cards, goods sold in black markets.	Digital ration card linked with Aadhaar number	**5.8 crore fake ration card removed, significant fiscal savings** in subsidy programs
Obtaining licenses for setting up businesses .	Manual submissions	**Indian e-Biz Portal** refers to a **Government-to-Business (G2B) digital portal** launched by the Government of India to **provide a one-stop, online platform for business and investment-related services**	Reduces complexity, paperwork, and time delays in regulatory processes

4.2 De-bureaucratisation measures

The Ministry of Electronics and Information Technology has carried forward comprehensive measures aimed at dismantling bureaucratic bottlenecks, decentralising decision-making authority, and empowering frontline administrative staff. These initiatives aims at transforming its public administration into dynamic,citizen-centric service provider under the government vision of "Viksit Bharat" i.e. Developed India by 2047.

Indian government reforms have enabled functional decentralisation by delegating operational authority to frontline administrative units and digital platforms. In digitalization of the different welfare schemes the final authority in deciding whether an individual is eligible for availing the fund under a government scheme rests with **Village Administrative Officer**. There are Digitized databases for different welfare schemes.Some of the examples are **Public Distribution System** (**PDS**), Mahatma Gandhi National Rural Employment Guarantee Act 2005(MGNREGA) (https://nrega.dord.gov.in/HomeGP_new.aspx). Thus we can see e-government reforms in India have enabled **decentralization implementation** by delegating operational authority to frontline administrative units while India follows **hybrid model-centralized digital infrastructure with decentralized implementation by states.**

Digitalization of Suakati Gram Panchayat in Keonjhar District, Banspal block, is a significant step towards decentralization.Digital platforms help local authorities manage records more efficiently, track progress on development projects and communicate with citizens.Local residents can voice their concerns, report issues, and participate in governance more easily, which strengthens community involvement in decision-making processes.Authorities can track resources and their usage more precisely, ensuring that they reach the right people at the right time. The entire process becomes faster, reducing delays and the burden on local administration.The Suakati Gram panchayat has been recognized for "Grassroot Level Initiatives for Deepening/ Widening of Service Delivery' with focus on initiatives by gram panchayats" category.

4.2.1 Restructuring National Initiatives

E-government initiatives in India have restructured how citizens interact with the government. This undertaking sought to streamline workflows, eliminate duplicative processes and bring about greater inter-ministerial collaboration.

Total at National Level (Conservative Count)

Framework	**Number of Initiatives**
NeGP (2006)	**31**
Digital India (2015 onwards)	**40+**
Minimum National Total	**70+ initiatives**

https://www.digitalindia.gov.in/milestones/ portal describes the different milestones achieved by Digital India program.

Key data on e-government service coverage includes:

- Integrated Services: As of August 2025, the National e-Governance Division (NeGD) has enabled the integration of nearly 2,000 e-Government services on the DigiLocker and e-District platforms.
- NeSDA Assessment: The National e-Governance Service Delivery Assessment (NeSDA) 2021 assessed 1,400 services across all States and UTs.
- Mission Mode Projects (MMPs): E-Governance in India covers more than 44 Mission Mode Projects (MMPs), including areas like income tax, land records, and passports.
- UMANG App: The UMANG app hosts over 1,700+ services.
- ServicePlus Framework: The ServicePlus framework supports more than 2,791 services of Central, State, and Local Governments.
- Websites and Portals: The National Portal of India provides a single-window access to 601 e-government portals and websites.

Furthermore, over 600 websites have been developed to conform to international web accessibility standards (WCAG).

This **data has been collected from various year end reviews published by different government departments like PIB(Press Information Bureau (PIB)), MeiTY(Ministry of Electronics and Information Technology),NeGD etc.**

The different Indian digital portals are assessed by the framework given by **NeSDA** (National e-Governance Service Delivery Assessment). NeSDA assesses government digital services on **how accessible, usable, integrated, secure, and citizen-friendly they are**, rather than just their existence. These websites are assessed primarily against GIGW(Guidelines for Indian Government Websites) 3.0, with mandatory WCAG 2.1 (Web Content Accessibility Guidelines). They are assessed for accessibility compliance and Government of India assesses digital portals for security, interoperability, and service-delivery standards.As of 0CT 2025 ,Approximately 23,919 is the Latest count of govt digital services provided (not "portals" but services on portals).In **2021**, NeSDA assessed and evaluated **about 1,400 services** across States and UTs, marking significant growth from earlier years.

As of December 2025 , India has more than doubled the number of government services available online in the past two-and-a-half years, the government told the Lok Sabha on Wednesday(theweek.in/wire-updates/national/2025/12/10/del52-lsq-public-e-services.html)

By early 2026, India's Mission Karmayogi, via the iGOT platform had enrolled over 1.26 crore civil servants for digital & competency training. With significant expansion into states, targeting 30 lakh officials in emerging tech like AI. Although exact final 2026 numbers need ongoing tracking, the trend shows massive upskilling underway. This statistic is provided by

indian government.This human capital development mirrors best practises advocated by OECD for sustainable public sector innovation (OECD,2021)

4.2.2 Empowering citizens through **Centralised Public Grievance Redress and Monitoring System (CPGRAMS)**

Real-time citizen feedback via Centralised Public Grievance Redress and Monitoring System (CPGRAMS) is not just a symbolic role but it has influenced tangible service improvements. This system enables citizens to lodge complaints, submit suggestions, and track government responses in real time,bypassing traditional bureaucratic layers.

www.india.gov.in is "One Nation, One Portal" integration improves coordination between central and state governments. www.india.gov.in. is single point access to different departments of government across different states and union territory. It has access to around 6,700 government website.it has more than 10244 e-Services delivered via portal, mobile apps, and kiosks.

www.india.gov.in is the parent portal and CPGRAMS is one of the services linked through www.india.gov.in. www.**india.gov.in is an information portal**, while **mygov.in is a citizen engagement platform**.

The Key Processed Cases Statistics are the following. Between 2020 and 2024, a total of 1,15,52,503 public grievances were redressed (i.e., processed/closed) on the CPGRAMS portal, as reported to Parliament. From 1 Nov 2022 to 28 Feb 2025, CPGRAMS received 52,36,844 grievances and 56,63,849 grievances were disposed of (processed) by ministries/departments/states/ UTs.

Many Indian government agencies are actively using feedback and data from the **Centralised Public Grievance Redress and Monitoring System (CPGRAMS)** to drive operational and policy reforms across departments.This includes performance monitoring, capacity building, policy review, technology upgrades, and inter-departmental improvements — all aimed at making government services more responsive, transparent, and citizen-centric

However, sustaining CPGRAMS'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)..Another limitation of the system is risk of **mechanical disposal** ("disposed" but not resolved).

4.2.3 Enhancing Service Delivery through Digital Transformation

India's de-bureaucratisation strategy has increasingly relied on comprehensive digital transformation to reduce procedural delays, discretion, and hierarchical bottlenecks across ministries.This included reengineering workflows to minimise manual steps, integrating several backend databases to facilitate inter-agency collaboration, and redesigning service touchpoints to be mobile-first. **India does not have one unified mega-database containing all citizen information. It uses a federated model. Databases are department-specific and are linked through APIs and digital identity.**

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-Biz portal.** By freeing up citizens from the need to navigate multiple government offices, the Indian government has reduced bureaucratic red tape and improved transparency and efficiency by centralising regulatory interactions for businesses. It has integrated access to government services across sectors. It was designed to bring together services from ministries like Corporate Affairs, Tax, RBI, Foreign Trade, EPFO, and others into one portal.

The digital transformation is an ongoing process.The key challenges include Digitalisation which can sometimes lead to **"techno-bureaucracy"**, where rigid portals replace human discretion without adequate grievance redress. It needs stronger protections for personal data as digital service penetration deepens..

4.3 Digitalization projects

NeGD has integrated nearly 2,000 government services on platforms like DigiLocker and e-District, which helps citizens access a wide range of services seamlessly and reduces duplication across bureaucratic silos**.**

4.3.1 *Unified Digital Access: UMANG App*

"Unified Digital Access" typically refers to efforts to centralize access to government services, information, and civic engagement through unified digital platforms — so citizens and businesses can interact with multiple government departments from one place, without needing separate logins or portals for each service

UMANG: An all-in-one app providing access to over 1,200 central and state government services (e.g., Aadhaar, DigiLocker, EPF, PAN, bill payments, etc). The UMANG app was launched on November 23, 2017. To login into the portal or app, open the app, enter your 10-digit registered mobile number, and input your MPIN or select "Login with OTP" to receive a code. There is also an option to login via Aadhaar for secure access. More sophisticated logins are fingerprint and facial recognition systems.These methods of login are emerging international best practices, such as the European Union's eIDAS framework. These sophisticated logins not only tightens up utiliser security but also facilitates seamless cross-platform interoperability. So India has huge scope for improvement in digitalization.

***UMANG* struggles more with digital inclusion, concerns about security and public awareness — typical issues in large, diverse populations focused on participation rather than service delivery**. These challenges will require sustained attention through outreach, utiliser education, and cybersecurity reinforcement (UNDESA, 2022).

MyGov is a **citizen engagement and participation platform** launched by the Government of India in 2014.**MyGov mobile app was launched in July 2015 (during Digital India Week).**M*yGov* is a **citizen engagement and participation platform** launched by the Government of India in 2014. It **connects citizens with the government** for consultations, idea sharing, policy input, surveys, polls, discussions, and engagement campaigns.Users can

submit opinions, participate in discussions on governance issues, contribute ideas for policy and public programmes and receive updates on government actions. It supports participation via web and mobile.

Solutions for challenges of MyGov app could include better integration with service platforms, more visible feedback mechanisms, wider language and rural outreach, and stronger data security protocols

4.3.2 Government mobile application ecosystem

The Indian government has launched an expanding suite of mobile applications tailored to specific citizen needs. Indian government projects leverage numerous mobile apps to drive digital governance, with key applications including UMANG (Unified Mobile App for New-Age Governance), DigiLocker for document storage, BHIM for UPI payments, and mAadhaar. Other vital apps include mPassportSeva, Aarogya Setu, DIKSHA (education), E-Sanjeevani (telemedicine), and MyGov.

The Indian government's expanding suite of mobile applications reflects a tailored, utiliser-centric approach to service delivery. Key examples BHIM (Bharat Interface for Money) facilitates fast, secure, and reliable cashless payment. It is part of digitalization of Financial & Economy projects. mPassport-Seva services has enhanced its services for passport application tracking and verification.

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. India's **digital governance ecosystem is federated, meaning different ministries and departments maintain their own databases. Some integration exists through APIs and shared digital infrastructure, but there is no single unified core database for all apps.**

Almost all Indian ministry e-governance apps are designed with domain-specific interfaces tailored to their particular sector, while adhering to common interoperability standards. Although many are accessible through the unified UMANG app.

The Indian public service app ecosystem is, by design, modular, open, and interoperable, largely structured around the concept of Digital Public Infrastructure (DPI).The ecosystem is built on independent "blocks" or layers—identity (Aadhaar), payments (UPI), and data sharing (Account Aggregators)—that can be used independently or combined.Platforms like UMANG, DigiLocker, and API Setu allow different government applications to share data and functionalities seamlessly

India must ensure that fragmented app experiences do not inadvertently recreate silos at the citizen interface level. **Indian e-governance applications are increasingly adopting interoperable data management to break down data silos** and enable seamless service delivery across departments. Key initiatives like API Setu, Digilocker, and the National e-Governance Division (NeGD) frameworks ensure data sharing, standardization, and secure exchange.

The Indian multiapp ecosystem should move towards modular public service app ecosystems observed in Digital Government leaders such as Estonia and South Korea (World Bank, 2022).A **modular public service app ecosystem** is a digital governance model where government services are built as **separate but interoperable components (modules)** that work together through shared digital infrastructure.

4.3.3 *Advanced Technologies in Government Operations*

India's adoption of emerging technologies further underlines its ambition to move beyond digitalisation towards intelligent governance.**Artificial Intelligence (AI)** tools is being utilised for predictive analytics.It is used in leak detection in Direct Benefit Transfer (DBT) using Aadhaar Id.Here predictive analysis is used in Detection of duplicate beneficiaries, identification of ghost accounts and Fraud pattern recognition.**Customer service chatbots** are used to manage inquiries.For example AI chatbot on UMANG,DigiLocker,IRCTC/rail services etc.AI tools are also used in automated service routing to minimise manual case handling. For example in CPGRAMS users are routed to the concerned Ministry/government department.

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). **Government Community Cloud initiative** has been set up to accelerate cloud use by central and state departments.India's e-governance cloud adoption is steadily expanding, with around 40% of government agencies migrating applications to cloud platforms. Key national systems like Aadhaar, DigiLocker and GSTN operate on cloud infrastructure.Rather than relying solely on foreign public clouds, there's a growing push toward **sovereign and Government Community Cloud solutions** that keep sensitive government data within India's jurisdiction for security and compliance.Recent major example is **BHASHINI migration to Indian sovereign AI cloud.**

Moving forward, India 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 India's e-Government reforms. **Prime Minister of India** is the political leader for Overall strategic direction for Digital India initiatives.The **MeitY** is the **central nodal authority** for e-governance in India, driving policies, standards, and implementation strategies across government departments.The **National e-Governance Division (NeGD)** is the **key**

executing unit for planning, implementation support, technical guidance and programme-management of e-governance initiatives. Central committees, often led by senior secretaries from MeitY and related ministries, guide policy directions, prioritise technological standards, and ensure alignment with national digital goals.Leadership development is emphasised through training programmes. There is Continuous training & upskilling of government officials to sustain digital transformation efforts.E-Governance initiatives are monitored through dashboards, KPIs, and periodic review mechanisms to check service delivery, uptime, impact on citizens, cost-effectiveness etc.Some projects undergo regular independent evaluation to assess outreach, service quality and governance improvements.Feedback loops, grievance redressal, user satisfaction data and platform usage analytics are integrated into project governance to improve service delivery. This ensures citizen engagement.

At the strategic level, the MeitY was tasked with setting priorities, aligning reform efforts with the Digital India objectives and ensuring cross-ministerial cooperation. Leadership was not confined to high-level mandates; it is extended down to ministry-specific reform units that followed through on sectoral digitalisation programmes.These sectoral digitalization programmes are part of *digital transformation* efforts that go beyond simple computerisation and focus on integrating digital tools into how entire sectors operate.

Key KPI of CPGRAMS (Public Grievance Redress System) are Total grievances received, average disposal time,disposable rate(%) etc. MyGov.in KPI focus is in **Participation, engagement, policy input** whereas CPGRAMS KPI focuses on **timely grievance resolution and accountability.**

Citizen satisfaction rates of Mygov.in are measured primarily by post-participation surveys which appear after completing a transaction. These surveys measure the following parameters like overall experience ,content relevance and usefulness, ease of the process and questions like “Would you recommend MyGov to others?”

India integrates citizen feedback through India Structured grievance rating (CPGRAMS),Consultation feedback (MyGov),Portal-level usability surveys,Ministry dashboards & ranking and SLA & accountability frameworks. Citizen satisfaction is measured platform-wise, ministry-wise, or scheme-wise through dashboards, feedback tools, and third-party surveys.

The National e-Governance Service Delivery Assessment (NeSDA) 2021 report — conducted by the Government of India — asked citizens to rate e-government services across key parameters on a 5-point scale (from “Very Dissatisfied” to “Very Satisfied”). **74% of respondents were either *Satisfied* or *Very Satisfied*** with core e-services overall.

The government is moving from monitoring individual KPIs toward **real-time, AI-assisted performance oversight.F**uture of linking **service delivery outcomes to leadership accountability in Indian e-governance** aligns with global digital governance best practices and ensures **citizen satisfaction is central to administrative accountability**, not just

technical compliance.Multi-ministry collaboration with shared responsibility is also one of the future takeaway.

This system of tying service delivery outcomes to leadership accountability will help the Indian government avoid one of the common pitfalls in digital reform: implementation drift without tangible impact.

5.2 Stakeholder Engagement

Stakeholder engagement is a critical component of e-governance projects in the Indian government because these projects involve multiple participants: government departments, citizens, businesses, technology providers and civil society. Effective engagement ensures adoption, transparency, accountability, and successful implementation.

CPGRAMS stands out as a flagship mechanism for involving citizens in service feedback and problem identification. Consultation and Feedback is the method of Stakeholder Engagement in CPGRAMS. In CPGRAMS Surveys, interviews, and workshops with citizens and businesses are the methods adopted to identify needs.Citizens are the main stakeholders who *submit grievances* about public services or government actions through the online portal, app etc.Their feedback and satisfaction levels help the system and agencies assess performance and improve service delivery. Once a grievance is lodged, it is forwarded to the relevant Ministry/Department/State government office responsible for resolving that issue. Government departments are monitored on timelines and quality of response to improve accountability.Data from grievances help identify recurring issues, which can inform policy improvements or administrative reforms(DARPG is policy hub).Technology partners ensure the platform runs effectively and inclusively.Monitoring committees are also one of stakeholder who conduct Regular review meetings at senior levels to monitor trends, resolve bottlenecks, and push for systemic changes. All stakeholders together make CPGRAMS a key citizen-centric e-governance tool in India.

e-Biz portal — a Government-to-Business (G2B) initiative aimed at simplifying the licensing and permit process for enterprises. It is a landmark **e-governance project for business licensing** that provides a centralized, online, integrated G2B service for applying, paying, and tracking business licenses and regulatory approvals across government departments. States complement this with **single-window portals** (like Nivesh Mitra) to further streamline licensing and clearances at the regional level. There are also **sector-specific portals** handling licenses for particular industries (e.g., food, industrial licenses).The main stakeholder in this project are the businesses who use the system and also provide feedback about the system. Businesses engagement hereby enhances the investment climate and regulatory efficiency.

However, engagement with civil society organisations (CSOs) appears less developed compared to the levels achieved in citizen and business outreach. civil society's engagement in India's e-governance ecosystem is **growing and increasingly recognised**, especially through digital participation platforms and local innovations, but **more**

systematic, institutionalised roles and stronger consultation frameworks are still needed to deepen this engagement meaningfully.Organisations like Digital Empowerment Foundation, Internet Freedom Foundation, Centre for Internet and Society, AISECT, and Janaagraha are **key CSOs involved in digital inclusion and e-governance advocacy in India.**

5.3 Capacity Building

India has placed considerable emphasis on capacity-building initiatives to equip public servants with the necessary skills and mindsets. It has established continuous learning platforms and frameworks (such as i-GOT) for ongoing professional development. It also extends support to the states through **State e-Mission Teams (SeMTs under NeGP)** comprising domain experts to assist states in planning and implementing e-Governance initiatives. **State e-Mission Teams offer Technical & managerial training for Better project execution.** Capacity building enhances **quality, efficiency, and sustainability** of digital public services.Platforms like i-GOT facilitate both online and offline learning for government employees. i-GOT offers Continuous digital training to produce skilled civil servants. The main objective of capacity building is adoption of **digital governance processes, emerging technologies (AI, data analytics, cloud etc.)**, and best practices globally.By linking training programmes directly to measurable performance indicators and service improvement outcomes, Indian government avoided the trap of capacity-building being perceived as a mere formality.

In CPGRAMS, capacity building is measured through the following KPI(Key performance Indicator) like Training coverage + Disposal efficiency + Quality of resolution + Institutional setup + Digital adoption + Monitoring & review strength. Following are r**ecent statistics on *capacity-building* under the CPGRAMS programme in India**, drawn from official monthly reports and government releases — especially under the *Sevottam Scheme*, which is the main capacity-building framework for CPGRAMS.**980+** training programmes are conducted under Sevottam and Total officers trained are **~32,939. This data is only till November 2025. These** measurable targets are monitored through monthly reviews and dashboard usage.

If implemented well, future capacity building will transform India's e-Governance from **System-centric governance to Citizen-centric, data-driven, secure digital governance.**India'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.Nevertheless, there remains a critical need to keep up with emerging skills demands in areas such as AI governance, cloud security, and data ethics.

6 India's e-Government de-bureaucratisation process vs Global leaders

India has already built strong digital public infrastructure (like Aadhaar, UPI, DigiLocker). If we look at **best global models to borrow from**, different countries stand out for different

strengths.Given India's size, federal structure, and diversity, **no single country fits perfectly** — but Estonia's architecture + Singapore's governance discipline would be the strongest combination.

Singapore

Singapore is widely recognized as a global leader in e-Governance due to its systematic, citizen-centric and technology-driven approach.

- It is known for **smart nation strategy**. Smart urban nation technology employs Sensor networks and data analytics that improve urban operations like traffic, utilities, and public safety. **Smart Nation Sensor Network is used for** Real-time data collection for urban planning.
- **Singpass is** Singapore's national digital identity for signing in and authenticating to services online.Most government services (tax, permits, utility services, social support, healthcare appointments, etc.) can be accessed online via unified portals like **Singapore Digital Gateway** or the **Singpass app.** It can even provide access to private sector services to an extent.

Estonia

Estonia's model shows that **interoperability, citizen trust, digital literacy, and legal recognition** are key to world-class e-governance

- Interoperable Architecture creates secure API-based data-sharing platform.**Application Programming Interface** in simple terms, it is a **set of rules and tools that allows different software applications to communicate with each other**
- **Data security and transparency** is accomplished by audit logs, citizen access and blockchain for sensitive data.Citizens can see who accessed their data and when.EStonia Uses **blockchain-based logs** to ensure data integrity
- **Legal Frameworks for Digital Governance**.Digital signatures and documents are legally binding.Laws support digital records, e-residency, and secure online transactions

6.2 Areas of improvement (India focus)

While India 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. THis can be overcome by implementing standardized APIs and a unified data framework for seamless integration between services.India 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 Singapore 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 India'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 (India Focus)

Dimension	Current Status in India	Comparative Learning Opportunity
Inter-agency Integration	Partial; through www.india.gov.in(It is single point access to different departments of government across different states and union territory) & Ministry of Electronics and Information Technology (MeitY) platforms. Data silos, legacy systems and Lack of standard APIs are some of the challenges..	Study the Estonia unified digital architecture and cross-ministry platform for deeper coordination. Estonia's **e-Health system**, which demonstrates how X-Road enables seamless data exchange across multiple government and private sector entities.
Digital Inclusion	Reflects a mix of significant progress and persistent challenges. Large-scale digital infrastructure,mobile access, and multi-lingual support are some of strengths .Rural reach, digital literacy, accessibility, trust, and affordability still limit full inclusion.	Tunisia & Morocco's mobile/SMS tools show how to serve underserved and digitally excluded populations.
AI & Predictive Services	Early stages. Emerging AI adoption in citizen services, welfare, and Smart Cities projects. Limited integration, data challenges, skill shortages, and regulatory	Leverage Singapore 's AI models in Smart Nation Sensor Network.

	frameworks are some of the gaps.	
Open Data & Civic Engagement	CPGRAMS is good, but open government frameworks are limited. CPGRAMS stands as one of India's most significant **e-governance success stories**	Tunisia's open data and participatory platforms present a model for enhancing transparency. Estonia is global leader in open data by global standards — strong e-voting, citizen initiatives, and participatory tools.Estonia's **e-Residency program** provides access to corporate data, business registries, and company statistics.Estonia is widely regarded as a **global leader in e-governance**, and its approach to **Open Data** is one of the key reasons for its success.

7 Outcome and impact assessment

A summary of the **impact of e-governance projects in India** is based on government initiatives, research analyses, and documented outcomes.India's ambitious e-Government transformation has produced significant improvements in public sector efficiency, citizen satisfaction and socio- economic development. A**lthough exact nationwide averages are not uniformly published, case studies and assessments clearly indicate significant improvements in service delivery speed, administrative coordination, and citizen convenience** across multiple e-government projects.Over the past five years, average service delivery times have decreased From *days/weeks* to *minutes/hours* in many e-enabled services through platforms like *MyGov* and *Ministry of Corporate Affairs (MCA Portal)www.mca.gov.im*

Targeted initiatives like *www.india.gov.in* and CPGRAMS translate into faster services, broader digital access and automation This ultimately contributes to trust in governance, economic growth, and inclusive public service delivery.**www.india.gov.in is the parent portal and CPGRAMS is one of the services linked through www.india.gov.in.**

Digital sectors have grown significantly faster than the overall economy, now contributing around 11 % of GDP and projected to reach ~20 % within a few years, with digital infrastructure alone adding nearly 1 % of GDP directly as of 2022.

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.Available satisfaction data (e.g., NeSDA) show high overall satisfaction with e-government service features (~70–79 %)**.No official satisfaction % published has been published.**

Critically, India's digital governance model reflects the principles of New Public Management (NPM), emphasising efficiency, transparency, decentralisation, and citizen-centric service delivery .

While there isn't a *single consolidated national number* signifying "e-governance *boosted GDP by X %*," multiple metrics demonstrate significant impact. For example **e-transactions rapidly rising**, indicating deep integration of digital service delivery.

Table 8. Indian 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
Infrastructure	Medium-high	smooth modernization,handle peak demand efficiently, minimize downtime
Trust and transparency	Medium	Publish dashboards of transactions, approvals, and fund flows Open data portals for independent analysis and verification Periodic publication of audit outcomes Publish KPIs on complaint resolution

There are a number of international indexes and Indian government indexes used to measure the Digital Delivery of Government Services (DDGS). They differ in scope—some focus on **online services**, others on **digital governance capacity, outcomes, or user experience.**Some of the important and prominent international indexes are UN EGDI,World Bank GTMI,OECD DGI and UN OSI.There are different domestic Indian indexes like GGI,MPI/EoL and NeSDA etc.

There are different dimensions by which leaders in digital delivery of government services are measured. For example for Online Service Sophistication the leaders are countries like Estonia, Denmark, Singapore. For User-Centric Design the leading countries are Denmark and Canada.

India is often described as a **"scale innovator"** (Aadhaar, UPI, DBT) but still trails these leaders in **interoperability, user experience consistency, and backend automation.A scale innovator** is an entity (usually a country or government) that:

> "Creates digital systems capable of operating at extremely large population scales, often under conditions of diversity, inequality, and limited resources, even if those systems are not the most sophisticated or seamless by global best-practice standards."

In simple terms:

Innovation × massive population = scale innovation

Some of the important characteristics of scale innovators are

a) India focuses on coverage and access first, refinement later whereas leaders like Estonia optimises experience.
b) Cost per user is low in India whereas it is very high in digital leaders.
c) Interoperability is partial in India whereas it is near-total in digital leaders.
d) UX uniformity is uneven in India whereas it is highly refined in digital leaders.

8 *Lessons Learned from India's Reform Experience*

First, strong political leadership and centralised coordination were crucial. MeitY and National e-Governance Division (NeGD) chaired by senior political leadership, enabled consistent prioritisation of digital reforms across ministries, avoiding the fragmentation seen in less coordinated systems.

Second, **Citizen-Centric and Integrated Service Platforms reduce administrative friction.Rather than isolated portals, India aimed for one-stop access:UMANG integrates 1,500+ services into a single mobile app**

Third, embedding utiliser feedback loops into platform design (e.g., CPGRAMS 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, investments in core digital infrastructure -such as Aadhaar ID ,OTP-based authentication,Biometric authentication, Face authentication etc - **DigiLocker** and **e-Sign-**cloud platforms -created a scalable foundation that India could build upon to expand services rapidly without duplication.

Finally the biggest transformation has been cultural transformation.Digital initiatives helped shift government thinking from **paper-based processes** to **fully digital workflows**.Government Focus moved toward **user experience** and outcomes rather than just technology rollout.True reform requires changing how government works and how it sees its users — citizens.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).

9 Conclusion

The main objective of Indian governance projects is efficiency,accountability and responsiveness. There has been significant improvement of accountability.Digital Footprints makes Every action leaves a record.Time Stamps & Tracking IDs enables responsibility tracing.,Public Dashboards enables Visible performance metrics.Reduced Human Discretion is achieved through Automated workflows.Data Analytics helps in detecting anomalies and

fraud.**But not all Indian digital platforms are tied to formal SLAs(Service Level Agreements). But most critical, transactional, and citizen-facing e-governance platforms operate under well-defined SLA or SLA-like performance frameworks to ensure accountability and reliability.** Thus accountability has a huge scope of improvement.

Efficiency in Indian e-governance projects is measured using quantifiable performance indicators like service timelines, cost savings, transaction volumes and outcome-based monitoring dashboards. The goal is to assess whether digital systems are delivering services faster, cheaper, and with fewer errors than traditional methods.**Efficiency** of Indian e-government (e-Governance) projects has generally improved over the past decade, but performance **varies significantly by program, state, and implementation quality**. **"Efficiency Power Matrix**" of Indian e-governance projects shows how efficiency and impact vary across different initiatives. DBT(Fast subsidy delivery, reduces leakages, nationwide), Aadhaar(instant authentication, fraud prevention, scalable), UPI(Real-time digital payments, massive transaction volume) has High Efficiency & High Impact.State-level projects (e-District, SVAMITVA) has Medium Efficiency & Medium Impact.Static Department Websites has low efficiency and low impact as they are Information-only portals with minimal automation. PRAGATI dashboards which are powerful for monitoring but require active use have Medium Efficiency & High Impact.

Responsiveness is a blend of speed, quality, inclusivity, and adaptability of government digital projects.Government Responsiveness Indicators are Time taken to update regulations or processes in digital platforms and share of services fully digitized versus manual. User-Centered Metrics measure how well the digital service meets citizen expectations. They include a)Ratings on ease of use, accessibility, overall experience, b)Average time taken to respond to citizen queries,c)Percentage of users who successfully complete tasks online, d) Reach across demographics, including marginalized or remote populations etc.**While many digital services now offer basic responsiveness((e.g., tracking, status updates, automated replies),deeper interactive responsiveness — such as meaningful dialogue, co-)creation of services, or offline inclusion — is still evolving**.UMANG(web platform giving access to hundreds of national and state government services with notifications and basic feedback options integrated.),DigiLocker(supports responsiveness of many services by making required proofs instantly available) are some of central government projects giving basic responsiveness.Chatbot and WhatsApp Interfaces are some of the Emerging Interactive Interfaces.These are in pilot phase.Several state governments are testing WhatsApp-based services and chatbot systems (e.g., Tamil Nadu's *Namma Arasu* chatbot or WhatsApp-based service hubs) where citizens can request services or get updates interactively, improving responsiveness via familiar channels

Thus India has made significant Progress in Digital Delivery of Government Services.India has **massively scaled digital services:** around 23,934 e-services are now delivered online across states/UTs, with major saturation of core mandatory services. Many states provide services through unified portals

India’s e-governance landscape in 2025–26 shows clear progress toward de-bureaucratization.Yet, full **de-bureaucratisation remains a journey with persistent gaps in adoption, digital equity, internal process redesign, and technical robustness.** The transformation is significant and ongoing, but not uniformly experienced across all regions or government functions.

According to the United Nations E-Government Survey 2024 report India shows a high level of human capital development and online services, though it faces challenges in infrastructure development. The 2024 survey indicates a significant upward trend in digital government with 118th rank (2014) , 105th rank (2022) and 97th rank (2024)**.India is classified under the "High" EGDI (0.50-0.75) group**

With EGDI ranking India stands 97th out of 193 countries. This means India is significantly behind the digital leaders in terms of integrated, comprehensive, and advanced public digital services — both in service quality and digital participation.Despite the ranking gap, India has accelerated digitization in government services over the past decade: Characteristics of Indian digital delivery of government services are 1)Massive Expansion of E-Services 2)Broad Digital Infrastructure & Access with India’s Common Services Centres (CSCs) — over 5.8 lakh centres 3) Real-World Usage & Satisfaction-70% of citizens reported using e-services, and many rated the experience positively.

India is an **emerging digital government** with significant achievements and rapid growth, yet **it trails behind the most advanced countries** that offer highly integrated, user-focused, and universally accessible digital public services.

Some of the recommendations along this line are as follows:

1)Data Security & Privacy: Strengthen cybersecurity measures to protect user data and enhance trust in digital systems.

2) India stands at the cusp of a new era powered by Artificial Intelligence (AI), where technology is transforming lives and shaping the nation’s progress. AI is no longer limited to research labs or big corporations. It is reaching citizens at every level. Initiatives such as the **IndiaAI Mission** and the **Centres of Excellence for AI** are at the heart of this transformation. So Leverage the IndiaAI Mission to foster innovation in AI-driven governance, education, and healthcare.

3) Integrated Governance: Promote "interoperability" by connecting different department systems and moving toward fully paperless, real-time, and mobile-first services.

4)Digital Literacy & Inclusion: Launch mission-mode programs to improve digital literacy, ensuring that technology reaches all sections of society.

These enhancements are critical for achieving the vision of a " viksit bharat 2047" and strengthening the national digital ecosystem

References:

Various data has been collected from **various year end reviews published by different government departments like PIB(Press Information Bureau (PIB)), MeiTY(Ministry of Electronics and Information Technology),NeGD etc.**

De-bureaucratisation through Digital Government Reform Bahrain Case Study.https://www.undp.org/sites/g/files/zskgke326/files/2025-11/de-bureaucratization_bahrain_fin.pdf

https://www.deloitte.com/us/en/insights/topics/economy/asia-pacific/india-economic-outlook.html

https://economictimes.indiatimes.com/news/economy/policy/view-india-neednt-worry-about-a-middle-income-trap/articleshow/70283084.cms?from=mdr

Alamgir, Jalal (2008). India's Open-Economy Policy: Globalism, Rivalry, Continuity. Routledge. p. 176. ISBN 978-1-135-97056-7. Archived from the original on 9 November 2023. Retrieved 10 November 2020.

Changing the Indian Economy: Renewal, Reform and Revival.Kanungo, Rama P.; Rowley, Chris; Banerjee, Anurag N. (2018).

Kaushik, Surendra K. (1997) "India's Evolving Economic Model: A Perspective on Economic and Financial Reforms". The American Journal of Economics and Sociology.

https://www.pib.gov.in/PressNoteDetails.aspx?NoteId=155121&ModuleId=3&reg=3&lang=2.

https://www.theweek.in/wire-updates/national/2025/12/10/del52-lsq-public-e-services.html

https://www.ispp.org.in/reforms-for-the-indian-bureaucracy-in-the-21st-century/

IMD World Competitiveness Report 2023.(www.imd.org › reports › annual-report).

https://ddnews.gov.in/en/national-youth-day-2026-how-india-is-empowering-its-young-population/

https://www.newsnationtv.com/hindi-total-number-of-e-services-in-india-crossed-22000--20250809143701-20250809182938/

Impact of Aadhaar in Welfare Programmes" (2017), Economic & Political Weekly, 52(50): 61–70".Eeetika khera

https://economictimes.indiatimes.com/news/india/digitisation-drive-transforms-pds-system-5-8-crore-fake-ration-cards-eliminated-govt/articleshow/115482695.cms?from=mdr

https://www.ndtv.com/india-news/government-resolves-90-5-of-public-grievances-in-2024-reports-lok-sabha-8069988

https://government.economictimes.indiatimes.com/news/governance/cpgrams-10-step-reforms-focus-on-quality-of-grievance-redressal-improving-citizen-satisfaction-govt/118721640

World Development Report 2022: FINANCE for an Equitable Recovery.World Bank, 2022.https://www.worldbank.org/en/publication/wdr2022

OECD (2021). The Path to Becoming a Data-Driven Public Sector. Paris: Organisation for Economic Development and Cooperation.

OECD (2023). Inclusive Digital Transformation in Government. Paris: Organisation for Economic Development and Cooperation.

National e-Governance Service Delivery Assessment (NeSDA) 2021 report

Pollitt, C., & Bouckaert, G. (2017). Public Management Reform: A Comparative Analysis—Into the Age of Austerity. Oxford University Press.Pollitt and Bouckaert, 2017

United Nations E-Government Survey 2024.https://publicadministration.un.org/egovkb/en-us/Reports/UN-E-Government-Survey-2024

World Bank (2020). Doing Business 2020: Comparing Business Regulation in 190 Economies.

UNDESA (2022). E-Government Survey 2022: The Future of Digital Government. New York: United Nations Department of Economic and Social Affairs.

UNDESA (2022). E-Government Survey 2022: The Future of Digital

Government. UNDESA (2024). E-Government Survey 2024.

World Bank (2022). GovTech Maturity Index 2022: Measuring Digital Transformation in the Public Sector.

World Bank (2022). World Development Indicators: Education and Digital Economy Statistics. World Bank (2022). World Development Indicators: Population and Migration Statistics.

World Bank (2023). Digital Inclusion and Skills Readiness in MENA.

World Bank (2024). Blockchain and Trust in Government: Regional Perspectives.

World Bank (2024). Digital Governance: Fiscal and Economic Impacts in MENA Region (Preliminary Report).