

A STUDY ON ROLE OF GOVERNMENT AND PUBLIC SECTOR IN DIGITAL TRANSFORMATION

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Abstract

The adoption of automation and artificial intelligence (AI) to improve service delivery and reduce operational costs are just a few examples of the many ways that government can undergo digital transformation. Other examples include the replacement of outmoded systems, the creation of cutting-edge digital platforms, and more. Digital transformation is the use of technology to enhance public services and create a better overall experience for citizens and businesses interacting with government offices in the context of the public sector. The creation of a public sector that is more open, effective, and responsive to the changing requirements of citizens is the objective of digital transformation in government. One of the easiest ways to make government services more accessible is to set up e-portals for people and businesses. It streamlines processes and reduces the need for in-person interactions by allowing users to access government services and information online. Embracing the open doors introduced by advanced developments is perhaps of the most critical test associations right now face. These developments are giving establishment to imaginative market participants, which disturb deeply grounded esteem chains, plans of action, and contest rules in numerous enterprises.

Introduction

The Digital India campaign was launched by the Indian government to improve online infrastructure and improve internet connectivity to make government services available electronically to citizens. Additionally, it aims to empower the nation digitally in technology. State leader Narendra Modi sent off the mission on first July 2015. The Government of India launched the Digital India initiative to provide rural areas with high-speed internet access. On July 1, 2015, PM Narendra Modi launched the Digital India Mission as a beneficiary of other government programs like Make in India, Bharatmala, Sagarmala, Startup India, BharatNet, and Standup India. The Digital India Mission focuses primarily on three areas:

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1. Providing digital infrastructure as a source of utility to every citizen.
2. Governance and services on demand.
3. To look after the digital empowerment of every citizen.

The mission of Digital India was to foster all-inclusive expansion in electronic services, goods, manufacturing, and employment opportunities. The nine growth areas pillars will receive the much-needed boost from Digital India. Each of these areas encompasses multiple Ministries and Departments and is itself a complex program. The following is a list of the nine pillars of Digital India:

Broadband Highways– This covers three sub components, namely Broadband for All – Rural, Broadband for All – Urban and National Information Infrastructure (NII).

Universal Access to Mobile Connectivity- This initiative focuses on network penetration and filling the gaps in connectivity in the country.

Public Internet Access Programme- The two sub components of Public Internet Access Programme are Common Services Centres (CSCs) and Post Offices as multi-service centres.

e-Administration: Government Process Re-engineering Using IT to Simplify and Make Government Processes More Efficient is Essential for Transformation to Make the Delivery of Government Services More Effective Across All Government Domains. As a result, All Ministries/Departments Must Put IT into Use to Reform the Government. e-Kranti, or electronic service delivery, aims to simplify access to public services and enhance their delivery. In this regard, various State Governments and Central Ministries have launched a number of e-governance initiatives to usher in an era of e-Government. From the computerization of government departments to initiatives that encompass the finer points of governance, such as citizen centricity, service orientation, and transparency, e-Governance in India has steadily developed.

Information for All: The goal of this pillar is to make sure that the line ministries' reliable data are transparent and available for the Indian people to use, reuse, and redistribute.

Electronics Manufacturing: The goal of this pillar is to encourage domestic electronics manufacturing.

IT for Jobs: The goal of this pillar is to train young people in the skills they need to get a job in the IT/ITES industry.

Early Harvest Programs: This pillar is made up of a group of short-term projects that have a direct impact on the Indian digital ecosystem. Some examples of these projects include an IT platform for mass messaging, crowdsourcing e-cards, biometric attendance in government offices, and WI-FI in every university.

To know about other government schemes, candidates can refer to the linked article.

Objectives of Digital India

The motto of the Digital India Mission is ‘Power to Empower’. There are three core components to the Digital India initiative. They are digital infrastructure creation, digital delivery of services, and digital literacy.

The major objectives of this initiative are listed below:

1. To provide high-speed internet in all gram panchayats.
2. To provide easy access to Common Service Centre (CSC) in all the locality.
3. Digital India is an initiative that combines a large number of ideas and thoughts into a single, comprehensive vision so that each of them is seen as part of a larger goal.
4. The Digital India Programme also focuses on restructuring many existing schemes that can be implemented in a synchronized manner.

Challenges of Digital India

The government of India has taken an initiative through the Digital India Mission to connect the rural areas of the country with high-speed internet networks. Apart from the various initiatives taken by Digital India, there are several challenges faced by it.

Some of the challenges and drawbacks of Digital Mission are mentioned below:

1. The daily internet speed, as well as the Wi-Fi hotspots, are slow as compared to other developed nations.
2. Most of the small and medium scale industry has to struggle a lot for adapting to the new modern technology.
3. Limited capability of entry-level smartphones for smooth internet access.
4. Lack of skilled manpower in the field of digital technology.
5. To look for about one million cybersecurity experts to check and monitor the growing menace of digital crime.
6. Lack of user education

The COVID-19 crisis has unquestionably accelerated sector-wide digital transitions. During Microsoft's April 2020 earnings call, SatyaNadella, CEO, said, "We've seen two years' worth of digital transformation in two months."¹ This trend has been especially apparent at all levels of government around the world. Over the past ten years, public sector organizations were still dominated by Industrial Age governance, which slowed digital transformation and was quickly disengaged. As a consequence of this, departments in all levels of government—national, regional, state, and local—are currently routinely carrying out tasks remotely that they would have deemed impossible just a few months ago, such as holding virtual meetings in parliaments or developing and delivering entire services remotely. There are two groups within the industry that are likely to push for digital transformation to be maintained and accelerated.

1. The digital natives within government entities are likely to want to keep their foot on the gas pedal of change and maintain these advances.
2. The private sector and citizens who have become much more used to working online and are therefore becoming more demanding around ease of access to services and the usability of digital apps.

On the other hand, spending through COVID-19 stimulus packages and the damage to economies will likely result in spending controls being applied across government departments and agencies, towards the end of the year and beyond. The aim will likely be to transfer funding from less essential programs to enable continued expenditure at the 'front line'. The need to digitize and the need to spend less could be seen as conflicting priorities, particularly since some shortcuts have been taken in the rush to digitize, leaving cyber vulnerabilities that urgently need to be addressed.

The challenge for digitization is that digitizing the way we do things today releases only limited benefits. In contrast, undertaking fundamental digital transformation to remove unnecessary processes and move to a 'to be' model, can deliver greater effectiveness in terms of improved citizen and workforce experience as well as long-term cost savings. Leaders need to demonstrate the confidence to maintain the momentum of transformational change for citizens and their workforce, as well as for their balance sheet, rather than retreating to incremental steps. They should not let the shackles of 'industrial age governance' reassert themselves.

In March, the Estonian government used a first-of-its-kind digital strategy to deal with the pandemic. They held a "Hack the Crisis" event and asked the general public for ideas.² In

just six hours, they got 96 ideas from over 830 people through an online collaboration hub. They have now set up 27 teams to work on "moonshot ideas" to deal with the crisis or prepare Estonia for the future. These ideas include reforming workplace regulations to support agile working, arts and culture, digital tutoring, and community volunteering.

Governments should pay more attention to a few fundamental elements of digital acceleration. They are: the cloud, data and analytics, mobility, and defensive cyber/security. The adoption of the cloud has been resisted by many government departments due to security concerns. The majority of these have been put to rest, and there is now a growing acceptance of it as the most fundamental of the foundation stones.

Additionally, there is a growing awareness of the fact that government data is an important but underutilized resource. Information investigation offer the valuable chance to convey experiences in regards to resident clients, the association or possibly enemies and empower proof based direction. Given the inheritance IT homes across state run administrations, the significance of network protection can't be over-stressed as divisions attempt advanced change. This is a key board risk that requires proactive management. Mobility is perhaps the foundation stone that has received the least attention from governments. The ability to provide access to capabilities and applications to and from a variety of devices, such as delivering services to citizens wherever they may be and whenever they wish to access them, is an aspect of mobility that goes beyond mobile phones. It also refers to connecting all of the equipment's sensors together, which makes predictive maintenance of rolling stock possible.

The sudden shift toward remote work has resulted in increased bandwidth requirements, which is anticipated to accelerate the delivery of 5G infrastructure. Because of its faster connections, ultra-low latency, and low energy consumption, 5G is not only the next step in the evolution of mobility but also a revolutionary leap forward. In terms of policy and regulation, governments play a significant role in encouraging or otherwise facilitating the deployment of 5G. Early relocations are likely to benefit the economy greatly.

In the new post-pandemic reality, digitization will likely necessitate the government taking the policy and regulatory lead for the economy as a whole. It will need to support and facilitate economies struggling to cope with physical distance, increased online commerce, and changes like the transition to a cashless society. In conclusion, numerous government departments have been swiftly forced to embrace the digital future and its potential rewards. Legislatures should try not to get back to old administration, processes and the status quo. The public sector ought to be aware of the fact that digital transformation has the potential to

improve citizen and workforce experiences as well as save money in the long run and significantly increase efficiency.

Role of Technology in the Government and Public Sector Undertakings

In today's world, technology has emerged as an essential facilitator for businesses. It plays an exceptionally quick part in driving streamlining and effectiveness across all areas today, including general society and confidential areas. Niche technologies have been implemented by Chief Information Officers from Public Service Units (PSUs) and the Government to propel innovation and transformation throughout the nation. The adoption of technology is seen as an investment in maintaining the nation's competitiveness in a global economy that is always changing.

Contingent upon moderate advances, for example, blockchain, man-made consciousness, mechanical technology, AI, and expanded reality have helped drive supported development inside the public area. Significant social, economic, technological, and environmental outcomes are being produced as a result of this persistent effort through automation and the digitalization of services. The improvement of various processes is the function that technology plays in government and the public sector.

Few technologies that have been rapidly adopted by the GOI and Public Sector industries today for facilitating the Digital Economy are as follows:

Artificial Intelligence and Analytics:

The role of technology in government and PSUs can harness citizens' data and behavior based on interactions with digital websites and agencies. Thus, the data obtained can be analyzed with the use of AI and analytics techniques. The intelligence gathered can provide personalized public services to citizens, derive actionable insights, and assist them in predicting future trends.

Blockchain:

Ventures and states across the world have recognized blockchain's true capacity. More than forty nations are attempting to incorporate blockchain technology into their economies. Moreover, they are creating a robust and comprehensive blockchain environment. The current version of the blockchain, Blockchain 3.0, outperforms previous versions in terms of security, scalability, and interoperability. To improve customer service, more than half of the states in India have begun pilot blockchain projects.

IoT:

The Smart City category is one of the significant government implementations of IoT. IoT solutions include a large number of city-wide IoT sensors that provide real-time event data.

Additionally, data is analyzed by a centralized system. Additionally, it aids in the improvement of city governance decision-making. A portion of the basic parts of the brilliant city as communicated in India's IoT strategy. Digital signage, intelligent city maintenance, intelligent transportation systems, smart parking, water and waste management, and smart grids are all examples of this.

Cloud Computing and Virtualization:

The role of technology in government and the public sector can be improved with Cloud computing. Therefore, resulting in higher and improved cost efficiencies, a faster time-to-market, and enhanced scalability of applications-on-demand. Virtualization (NFV and SDN) is also serving as a significant driver of cloud deployment across all sectors. Using Cloud Computing, even small to medium public sector organizations within local communities, have driven innovation in ways that would not have been possible if they were to rely entirely on their resources.

Location Intelligence and Surveillance

In the midst of the COVID-19 pandemic, both public sector and government organizations are implementing surveillance technologies to monitor employee movement. In any case, Cellphones are assuming a basic part in the battle against the spread of the Covid. The Indian Government, on April 6, 2020, sent off the AarogyaSetu application for contact following. Geo-fencing technology is also being used by PSUs and state governments to quarantine infected individuals. It alerts authorities when a particular mobile device leaves a designated area, assisting in the creation of a virtual geographic boundary.

Digital Twins: Bridging the physical and digital

PSUs' use of digital twins to carry out predictive maintenance on their products and machinery is poised for radical change. Digital twin use cases are being pioneered all over the world in industries with assets and processes that require a lot of capital, like manufacturing, energy, and utilities. They can also help improve distribution, fulfillment, and supply chain processes. Unilever, a global leader in the FMCG industry, has started a digital twin project to create virtual models of dozens of its factories.

Scope for Digital transformation

Now that it's clear what you can do to create more effective processes in your public sector organization, let's figure out how you can do it to drive digitalization through your digital strategy.

Invest in a digital adoption platform

Let's say you've set up a cutting-edge record management system. How can you guarantee that your employees will make the most of it? To make it simpler for your representatives to explore change, put resources into a computerized reception stage (DAP) that will uphold them all through their excursion with new frameworks. Government agencies can layer help content, tooltips, and contextual support on top of the app's interface by using a DAP like Whatfix to create in-app guidance and on-demand support for their applications and citizen portals. To ensure that your employees have access to the most current information, you can design individualized in-app training programs for various agencies and departments.

Create a change leadership committee

Change is hard to navigate. You need people who will lead the process, keep an eye on obstacles, and address the concerns of employees. The mandate, scope, and structure of the change leadership committee ought to be communicated to all stakeholders. In order to guarantee the digital transformation initiative's success, the committee ought to collaborate closely with the digital transformation consultant, if one is hired.

Bring on a digital transformation consultant

If you don't have previous experience with implementing new technology and driving digital adoption in your organization, hire a digital transformation consultant. The process involves too many structural changes for you to navigate it without a professional on your team. A digital transformation consultant will assist you throughout the entire process by:

Conducting a needs analysis to identify areas for improvement and opportunities for digitization. Developing a digital transformation strategy that aligns with the organization's goals and objectives. Providing guidance on the selection and software implementation of new digital technologies and tools. Offering training and support to employees to ensure the successful adoption of new technologies and processes. With an experienced consultant to help you navigate the process, you'll achieve your digital transformation goals faster and with fewer expenses.

Align governmental department goals with the overall digitalization strategy

Every division ought to recognize how digitalization can support and improve their administrations and tasks. The most important thing, however, is to outline the specific initiatives and steps that each department must take in order to achieve your digital transformation objectives. Encourage departments to work together, communicate openly, and give each other feedback to achieve alignment. The digital transformation team should be

there to help and guide employees when needed, and departments should regularly share updates on their progress and challenges.

Provide evidence to employees and the public on the need for digitization

For businesses in every sector, resistance to change is a major obstacle. Companies in the public sector are not an exception. You will encounter resistance from citizens as well as internal employees as you develop your digital transformation initiative. To address it, you should clearly explain to your staff and the public the advantages of digitalization. To get the support of those who are involved in the initiative as well as those who will be impacted by the change, you should provide data that is supported by evidence on the positive outcomes of digital transformation, such as increased service delivery, cost savings, and increased efficiency.

Government employees won't be able to quickly adjust to significant new digital changes. You must also offer citizens who use new digital portals and services support, tutorials, and guidance. With Whatfix, government services can create in-app guidance and on-demand self-help for public sector employees to help them adjust to new government systems and process changes. This includes interactive onboarding, support in the moment of need, in-app walkthroughs, field validations, and more. Additionally, it enables public services to provide self-help for citizens who require a little contextual support as well as the creation of in-app guidance for citizens engaging in digital experiences.

Conclusion

Computerized advances can contribute critical worth to verticals, for example, online exchanges, government appropriation moves, and obtainment to further develop proficiency and efficiency in Government and public-area units. Governments are increasingly utilizing cutting-edge technologies like blockchain and artificial intelligence (AI) to improve the effectiveness of the services they provide. Blockchain technology, for instance, can make it possible for the government to keep important data records private and secure within a secure ledger. India's rapid digitization has been greatly aided by technology in government and the public sector. Online transactions, government subsidy transfers, and procurement can all benefit greatly from digital technologies to improve efficiency and productivity in the public sector and the government. Additionally, collaborating with the private sector, both federal and state governments have the ability to drive digitization. putting technology at the heart of their business as a result.

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