Chapter 10
Effective E-Governance: The Way Forward

10.1 Introduction

An e-governance project is expected to comprehensively deal with the challenges related to change management, procedural reforms including amendment of related legal acts, process reengineering, interoperability, digital divide, cross-organizational content development and management, compliance to standards, use of emerging technologies, value accruing to stakeholders, performance measures, project sustainability, etc. In Indian context, these aspects have been well addressed by various studies commissioned by the government which have come out recommendations for effective e-governance. Some of the key documents which can be referred in this regard include *India as Knowledge Superpower—Strategy for transformation* (Planning Commission 2001), *Reference Compendium for IT Managers and CIOs on E-Governance* of the Department of Administrative Reforms and Public Grievances (DARPG 2003), *Second Administrative Reforms Commission's report on e-governance* (ARC 2008) and *India e-readiness reports* of the National Council of Applied Economics Research (DIT 2003, 2004, 2005, 2006, 2008, 2011). At international level, organizations like United Nations and World Bank have been bringing out survey reports and documents reflecting the progress of e-governance in different countries and showcasing best practices and innovative use of technology benefitting the citizens.

A review of such reports on the subject reveals that the likely hurdles and recommended practices for effective e-governance were well identified even when e-governance was at nascent stage in India. A recent government publication on policy initiatives under Digital India Programme reflects upon the renewed thrust being given on effective implementation of various ongoing MMPs of the erstwhile NeGP which have now been subsumed in e-kranti. The principles which define the framework for e-kranti and its broad implementation approach are brought out in Box 10.1

Box 10.1

Principles of e-Kranti (Source: www.digitalindia.gov.in)

The key principles of e-Kranti are as follows:

i. **Transformation and not Translation**—All project proposals in e-Kranti must involve substantial transformation in the quality, quantity and manner of delivery of services and significant enhancement in productivity and competitiveness.

ii. **Integrated Services and not Individual Services**—A common middleware and integration of the back-end processes and processing systems is required to facilitate integrated service delivery to citizens.

iii. **Government Process Reengineering (GPR)** to be mandatory in every Mission Mode Project (MMP)—To mandate GPR as the essential first step in all new MMPs without which a project may not be sanctioned. The degree of GPR should be assessed and enhanced for the existing MMPs.

iv. **ICT Infrastructure on Demand**—Government departments should be provided with ICT infrastructure, such as connectivity, cloud and mobile platform on demand. In this regard, National Information Infrastructure (NII), which is at an advanced stage of project formulation, would be fast tracked by DeitY.

v. **Cloud by Default**—The flexibility, agility and cost effectiveness offered by cloud technologies would be fully leveraged while designing and hosting applications. Government Cloud shall be the default Cloud for Government Departments. All sensitive information of Government Departments shall be stored in a Government Cloud only. Any Government Department may use a private Cloud only after obtaining permission from Department of Electronics and Information Technology which shall do so after assessing the security and privacy aspects of the proposed Cloud.

vi. **Mobile First**—All applications are designed/redesigned to enable delivery of services through mobile.

vii. **Fast Tracking Approvals**—To establish a fast-track approval mechanism for MMPs, once the Detailed Project Report (DPR) of a project is approved by the Competent Authority, empowered committees may be constituted with delegated powers to take all subsequent decisions.

viii. **Mandating Standards and Protocols**—Use of e-Governance standards and protocols as notified by DeitY be mandated in all e-governance projects.

ix. **Language Localization**—It is imperative that all information and services in e-Governance projects are available in Indian languages as well.

x. **National GIS (Geo-Spatial Information System)**—NGIS to be leveraged as a platform and as a service in e-Governance projects.
xi. **Security and Electronic Data Preservation**—All online applications and e-services to adhere to prescribed security measures including cyber security. The National Cyber Security Policy 2013 notified by DeitY must be followed.

Approach and Methodology for Implementing e-Kranti
The following approach and methodology should be adopted for e-Kranti:

i. Ministries/Departments/States would fully leverage the Common and Support ICT Infrastructure (e.g. GI Cloud, National/State Data Centres, Mobile Seva, State Wide Area Networks, Common Services Centres and Electronic Service Delivery Gateways). DeitY would also evolve/lay down standards and policy guidelines, provide technical and handholding support, undertake capacity building, R&D, etc.
ii. The existing/ongoing MMPs would also be suitably revamped to align them with the principles of e-Kranti. Scope enhancement, Process Reengineering, use of integrated and interoperable systems and deployment of emerging technologies like Cloud and mobile would be undertaken to enhance the delivery of government services to citizens.
iii. States would be given flexibility to identify, for inclusion, additional state-specific projects, which are relevant for their socio-economic needs.
iv. e-Governance would be promoted through a centralized initiative to the extent necessary, to ensure citizen service orientation, interoperability of various e-Governance applications and optimal utilization of ICT infrastructure/resources, while adopting a decentralized implementation model.
v. Successes would be identified and their replication promoted proactively with required customization wherever needed.
vi. Public–private partnerships would be preferred wherever feasible to implement e-Governance projects with adequate management and strategic control.
vii. Adoption of AADHAAR-based ID would be promoted to facilitate identification and delivery of benefits.

Despite the past guidelines available for practitioners or the ones presented in the form of principles defining framework for e-kranti in Box 10.1, projects in India continue to face challenges particularly when it is attempted to roll out successfully completed pilots. In many instances, launching of projects is based on political expediency and not a thoroughly conducted feasibility study. There is hardly any project which can be said to have achieved mature stage of e-governance in India. It is, therefore, unlikely to expect Digital India Programme to bring the aspired

transformation in India which the erstwhile NeGP could not. The need of the hour is to bring out corrective measures for improving performance of projects based on their in-depth analysis from the perspective of key stakeholders. Unfortunately, the practitioners continue to highlight only the achievements made under e-governance initiatives ignoring the need for measuring performance of projects from different viewpoints and sharing the same for better planning and implementation of future projects. As a result, insights based on cross-case analysis of projects from the perspectives of key stakeholders are generally lacking in literature.

In this book, e-governance performance is analysed from the perspectives of three key stakeholders, viz. planners, implementers and beneficiaries spread across select projects in the study context. Further, significant strategic variables which are likely to influence project performance have also been identified. These strategic variables have been interpreted in projects and based on a synthesis of qualitative and quantitative analysis, a strategic framework has been brought out for improving performance of e-governance projects (Chap. 3, Fig. 3.1). This framework, based on cross-case analysis of projects, has been kept into view while bringing out strategic recommendations in this chapter.

10.2 Strategic Recommendations

The recommendations for improving performance from the perspectives of planners, implementers and beneficiaries are presented as follows:

10.2.1 Systems Approach to Plan for E-Governance Project

E-governance projects involve a diverse set of internal and external actors having different viewpoints, expectations and capabilities. The resultant complexities need to be methodically analysed by following a systematic approach while planning for large projects to avoid deadlock like situations during implementation. Program Planning Methodology, proposed by Hill and Warfield (1972), is one such guiding tool which can be used by the departments for formulating a comprehensive plan. As per this approach, emphasis need to be given on adequately addressing the affected societal sectors, assessment of their needs, clearly defined objectives, objective measures, expected constraints during execution, identification of alterables, activities, activity measures and agencies involved. Further, interlinkages among these elements need to be identified for the purpose of defining a realistic scope, prioritizing services and suggesting achievable milestones for the services.

10.2.2   *Strengthening Bottom-up Planning Through Emergent Strategy and Village Level Socio-economic Databases*

The planning infrastructure at state, district and panchayat levels in India is weak due to which the national planning system continues to be predominantly top driven. E-governance projects which have implications at grassroots, therefore, suffer from a gross mismatch between centrally driven plans and the ground realities. The unsuitability of the conventional top-down planning approach for e-governance projects is reflected in several of the projects losing their path midway and hardly any one reaching the maturity stage in terms of vertical and horizontal integration. Even though the Union Budget 2016 reflects government's intent to develop governance capabilities of Panchayati Raj Institutions, its realization may take considerable time in a large country like India. The evolving nature of e-governance projects ask for replacing the traditional one-time strategic planning approach with the emergent strategy approach (Mintzberg 1994) for the plan to remain relevant and aligned with the changing ground realities. For this, the operational level employees need to be actively involvement in the planning process.

Furthermore, planning needs to be supported by village level socio-economic databases which are generally lacking in under developed and developing countries. A nation-wide effort towards building such databases at district levels in India was made under the District Informatics Network (DISCNIC) programme conceptualized by the National Informatics Centre (NIC) way back in 1986. The programme, which was subsequently discontinued by NIC due to changes in organizational priorities, needs to be revived and its scope expanded to cover village level databases for strengthening government planning and decision support systems.

10.2.3   *Designing Flexible Planning Processes*

The project plans have to be flexible enough for responding to changing needs of stakeholders and advancements in technology during the course of project implementation. Project plans should thus be subjected to intermediate reviews and procedures involved in modifying an approved project plan need to be simplified. Analyses of existing processes encompassing preparation of project plan, capacity building, content development, content delivery and management of change reflect that these processes are highly inflexible in the present setup. It is, therefore, needed to introduce change mechanisms in the planning processes such as these in order to make them adaptable to changing situations and generate better value for the end users.

10.2.4 Rejuvenating IT Units of Government Departments

Strategic planning for e-governance projects should necessarily be backed by a thorough analysis of internal and external environment. This requires constant vigil on the changing environment through structured deliberations with a diverse set of stakeholders and analysing the emerging trends. In the present setup, the IT divisions created to take e-governance initiatives with the support of existing staff in the government departments, generally lack the required professional competencies to conduct such strategic analysis. These divisions, which usually are not equipped with the required expertise to formulate or critically evaluate e-governance project proposals, do not seem to be capable of managing the complex issues related to implementation of the much ambitious Digital India Programme. It is experienced that for bridging the capability gap, the departments generally resort to hiring services of IT companies without conducting an in-depth research about their larger interests. At times, this approach can lead to conflict of interest in government decision-making process. This serious limitation can be easily overcome by restructuring the IT wing of government, viz. the National Informatics Centre and integrating its sector-specific application divisions with the respective departments on the lines of other cadre services. Professionals with required techno-managerial skills can also be recruited from both academia and industry to further augment the required competencies in various departments.

10.2.5 Accelerating Organizational Learning and Responsiveness

Most e-governance projects are found to be lacking effective control mechanisms as government organizations are not designed to handle massive feedback from the end users. For accelerating organizational learning and responsiveness, it is required to have sound in-house mechanisms for regularly obtaining feedback from internal actors, related external organizations, related projects and beneficiaries and analysing the same for keeping pace with the changing expectations of various stakeholders. The feedback-based learning should also form the basis for bringing agility in the organizations through incremental changes in the associated processes, roles and responsibilities. The up-scaling of projects should necessarily be based on learning from pilot implementations.

10.2.6 Practicing Contact Leadership

Planners need to extensively use innovative means including social media for constantly maintaining contact with implementers and beneficiaries to remain updated with the ground realities. They need to frequently visit field offices and personally

interact with beneficiaries to directly understand the implementation-related issues. Their better perception about changing user needs is expected to sensitize them to take measures for meeting emerging requirements and reducing design–reality gaps.

10.2.7   Monitoring Strategic Effectiveness Based on Governance Reforms

The traditional government system of monitoring performance in terms of physical and financial progress of e-governance projects may not necessarily reflect upon the intended improvement in the governance system. Merely keeping the focus on operational aspects, as is being generally practiced through service level agreements undertaken for outsourced project activities, does not reflect on the progress of a project in terms value accruing to intended beneficiaries. The performance review system of an e-governance project should, therefore, stress upon monitoring of strategic effectiveness of a project from the perspective of bringing reforms in the governance system (e.g. expected accruing of value in terms of efficiency, transparency, interactivity and decision support). The measures for assessing value accruing to stakeholders should be explicitly defined in the project plan in verifiable terms. The project performance should be regularly reviewed against these measures to maintain a synergetic relationship with the stakeholders. Ideally, the performance levels experienced by the beneficiaries should match with the performance levels perceived by the implementers and planners and should also be of high order.

10.2.8   Improving Service Levels Through Learning Loops

Planning for implementation of an e-governance project should be based on iterative enhancements in service levels enabled through learning loops. Service levels should be prioritized by conducting a thorough analysis of associated actor–process interfaces. The dependencies of an intended service on various internal and external actors should be resolved before taking up its automation to avoid deadlock like situations in a project. The approach requires constant dialogue among planners, implementers and beneficiaries throughout the project life cycle.

10.2.9   Forming Strategic Alliances for Effective E-Governance

The federal system of government as being practiced in India adds to the complexities associated with e-governance projects. To avoid redundant efforts and wastage of

scare resources, e-governance projects need to be jointly owned by all the related organizations at the centre and state government levels. This can be achieved by forming strategic alliances among the involved organizations while planning for a project. The structure of such an alliance should be based on capabilities of the respective organizations for generating better value for the target beneficiaries and the partners involved. The databases built through joint efforts should be recognized as national assets and its sharable contents be made accessible to the end users.

Furthermore, government resources alone are not adequate enough to connect with the large rural base in countries like India. The scope of strategic alliances should, therefore, be expanded by partnering with trustworthy companies, NGOs, Self Help Groups, Co-operatives, etc.

10.2.10 Ensuring Strategic Coherence Among Planners and Implementers

Committed involvement of implementers is essential for the success of any e-governance project. Planners and implementers have, therefore, to function as a cohesive unit towards the same strategic direction. Strategic coherence among planners and implementers can be achieved by infusing a shared vision and mission among the officials working at different layers of the involved organizations. For this, operational level officials need to be involved in the planning of e-governance projects. They need to be encouraged to document and escalate shortcomings experienced during implementation. Implementers need to be empowered to deviate from approved procedures for meeting emerging requirements and provided with adequate resources for effective implementation of strategy.

10.2.11 Bridging Planners–Beneficiaries Gaps

Implementers work closer to beneficiaries as compared to planners. They need to play a critical role by remaining in touch with beneficiaries, understanding changing user needs, providing regular feedback about ground realities and pursuing with planners for taking corrective measure. This is expected to trigger timely interventions by planners as per emergent service delivery-related issues at grassroots thereby bridging the generally prevailing perception gaps among planners and beneficiaries.

10.2.12 Shared Ownership of E-Governance Services

Implementers can play a key role in localization of e-governance service offerings. For ensuring their shared ownership of the services offered, the implementers need

to be adequately sensitized about their changed role as service providers. They need to be equipped with knowledge of IT tools and analytical skills for developing better insights about project progress in terms of adoption of e-governance services by the target beneficiaries.

10.2.13   Incentivizing Implementers for Local Initiatives

Implementers need to be incentivized and empowered to involve other stakeholders during execution to extend the concept of shared ownership beyond the organizational limits. Better understanding of the stakeholders' expectations and operational constraints shall prompt implementers to take local initiatives for project strengthening through an innovative mix of conventional methods and IT-based solutions.

10.2.14   Ensuring Adoption of E-Governance Services

A number of e-governance services continue to remain underutilized due to beneficiaries' continued preference for the conventional systems. For e-governance services to be effective, beneficiaries need to be attracted to the novel methods of service delivery. This can be achieved by facilitating their smooth access to services through a mix of conventional means and digital technology-driven alternate delivery channels. The design of service interfaces should be based on usability attributes such as learnability of target users, their speed of operations, recoverability from user errors and localization of contents besides improving their trust on services by ensuring reliable and secured transactions, maintaining privacy, etc.

10.2.15   Enabling Implementers and Beneficiaries for Participatory Governance and Demand-Driven Services

E-governance service interfaces get stabilized with increased user participation. To ensure that the services are demand driven, the capability building programmes need to focus on improving implementers' and beneficiaries' ability to make use of the service features. For customized service offerings and participatory governance, beneficiaries need to be sensitized and enabled to regularly provide feedback for improving services as per their needs. On government's part, beneficiaries need to be mandatorily informed about the action taken on feedback to build their confidence on e-governance systems. Skills and receptiveness of government officials and beneficiaries pose a major challenge in the transformation expected from e-governance.

Keeping in view the low literacy levels, supporting infrastructure on the lines of common service centres has to be established at village level and large-scale capability building programmes organized for bringing the citizens at grassroots to the mainstream. A focused thrust on establishing beneficiaries level feedback loops by various departments is also expected to facilitate effective utilization of web-based grievance redressal systems being implemented at centre and state government levels. Further, the capability building programmes of different projects need to be constantly fine-tuned based on their regular assessment through independent surveys.

10.2.16 Strengthening the National Informatics Centre

It is pertinent to underline here that National Informatics Centre has been the harbinger of IT in the government sector in India. Since its establishment in 1976, this prestigious national organization has been striving hard to network India, despite several constraints. Over the years, NIC has closely worked with various government organizations at centre, state and district levels on various projects and developed a rich knowledge base in different sectors by experiencing both successes and failures. Therefore, it is important to reiterate here that the potential of this pioneering national enterprise needs to fully exploited by effectively leveraging its ICT infrastructure and knowledge base for the success of 'Digital India Programme'.

10.3 Concluding Remarks

In this chapter, recommendations for improving project performance have been brought out from the viewpoints of planners, implementers and beneficiaries which are the key stakeholders in a typical e-governance project. The recommendations are based on an in-depth strategic analysis of projects identified for the study. It is expected that these recommendations based on cross-case analysis of projects in India shall be useful for effective implementation of the ongoing projects and better planning and implementation of future projects not only in India but also in other developing countries, keeping in view the experience gained by India.

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