Management of e-Governance Project Implementation in Panchayat Institutions: A Case Study of Kerala

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Computerisation and the use of IT are inevitable to all the aspects of governance in modern times. While the social, infrastructural and communication challenges and the targeted benefits of e-governance projects are studied in detail, studies on the different aspects of change management during the implementation of these projects are limited. Here, change management is more than integrating technology involving respective functionaries and governance processes and adapting to the new realities. So change management is a crucial component in the effective implementation of e-governance projects. Though the Panchayat Raj institutions are established in the country, the systemic issues related to service delivery, administrative efficiency and lack of access to information challenge its effectiveness. In this regard, the Government of India initiated e-Panchayat MMP. This paper looks into the structure and implementation of the project, and the technical challenges institutions had to deal with as part of change management. Further, it explores the case of Kerala, where a State-specific application suite has been developed to suit its distinct nature of Panchayat administration.

In modern states, the government and governance process per se is becoming increasingly complex with rising expectations and widening responsibilities. With the rising demand for good governance, governments worldwide are increasingly pressured to enhance their quality and quantity of services. Good governance is characterised by ensuring accountability, transparency, responsiveness, the rule of law, stability, equity and inclusiveness, participation, efficiency and effectiveness, and consensus-oriented. The existing governance system in India is weighed down by its inherent issues such as corruption, inefficiency, and lack of opportunities for citizens to participate in decision making, resulting in and computing the ineffectiveness of the systems. In this regard, e-governance has emerged as a viable and cost-effective model, promising good governance.

The internet has the power to revolutionise governance through information sharing. This led to the growth of e-governance and further expanded under the m-governance projects. A web interface can improve stakeholder participation and ensure accountability, thereby improving the governance in public institutions. From the national level to the village panchayats, digitisation of all public institutions has become inevitable. The real-time data of office bearers, developmental projects, budget allocations, funds utilised and progress of projects, resources created, and even public service delivery are updated for monitoring on the platforms. The scope of digitisation in all such projects is further widened by integrating transformative technologies such as cloud computing, work automation, and digital payments based on digital identity. Thus open access information becomes crucial in coordinating the bottom-up and top-down approaches of participation and development.

At present, computerisation and advanced technologies are becoming inseparable from day to day governance. The studies on e-governance have primarily focused on the social, infrastructural and communication challenges and the targeted benefits of the projects. However, studies on different aspects of change management during the implementation of e-governance projects are limited. This paper focuses on such change management demanded by the top-down reforms, especially e-governance. From the organisational perspective, change management is a crucial component in the effective implementation of e-governance projects. Here, the scope of change management extends beyond the technological integration of governance processes to ensuring active involvement of

respective functionaries during the process and adapting themselves to these changes. In this regard, the paper focuses on the implementation of e-governance in the Panchayat Raj administration. It analyses the framework of e-panchayat Mission Mode Project, implementation of the project, and the institutional challenges as part of change management. Further, it explores the case of State-specific initiative in Kerala developed to suit its distinct nature of Panchayat administration.

E-governance- Scope and Reach

E-Governance is the application of Information and Communications Technology (ICT) to government functioning to create Simple, Moral, Accountable, Responsive and Transparent (SMART) governance. The primary focus has been on administrative efficiency, public information and service delivery functions. E-governance projects aid the good governance goals by improving the efficiency of administrative institutions, better service delivery to citizens, empowering people through information, and even providing interfaces between government, civil society, industry and citizens. More than just being government on the internet, it integrates the components of interactions and the relationships involved in the system. So, the project components are modelled as G2C (Government to Citizen), G2B (Government to Business), G2G (Government to Government) and G2E systems (Government to Employee) (Commission, 2008).

The scope of e-governance is ever increasing with the rapid spread of the internet and technological developments such as artificial intelligence and geo-tagging. Their capacity to address the inadequacies in governance and improve the quality of services have led to its popularity and acceptability. E-governance essentially begins with promoting computerisation of administrative activities, such as file management, improving administrative efficiency and enabling prompt services delivery. Further, it facilitates public information through access to basic information through websites, file tracking and other related information systems developed towards the participatory and transparency objectives. Further, it extended to the e-service facilities enabling e-filing, monitoring, and even receiving applications from applicants improving the service delivery, responsiveness, transparency and accountability. Thus, e-governance has extended beyond its efficiency objective to bring the governance institutions closer to the people and even improve the relationship between citizens and the state. (U, 2020)

E-governance is commonly appreciated as a necessary and profitable change, but effective implementation is not hassle-free. There are four core pillars of e-government viz., people, process, technology and resource. Addressing issues concerning each of them is decisive for the success of any e-governance project. A comprehensive e-governance reform extends beyond its IT component, covering the process, people, and preparedness. Similarly, the compatibility of government processes, procedures and structures and the e-readiness of departments, its officials and citizens are also necessary components in the success and sustainability of e-governance projects. While the implementation of e-governance projects focused on addressing the challenges of each component, the aspect of organisational culture concerning people and their preparedness components are largely being left to the officials themselves to manage (Commission, 2008).

The first step towards e-governance is ensuring the computerisation of the departments and its allied offices. This is an administrative reform in itself. It would address the longstanding demands to improve administrative efficiency, service delivery and tackle corruption practices. It reduces paperwork, simplifies administrative processes, makes transactions swifter, minimises labour costs, and eventually significantly improves the quality of services. In the larger context, e-governance itself is built on the trust, participation of stakeholders, collaboration, transparency, and perceived use, as well as its usefulness. This points at the nature of challenges for e-governance to be more than just structural issues towards human resource and management issues requiring the organisational culture to change and adapt

itself to the new system. Here, the democratisation of change management is a significant concern for the implementing authorities. This study focuses on this aspect of the e-governance initiative introduced at the panchayat level. The focus also extends towards the dimensions of impact, acceptability and change management within the administrative system. (Bhatnagar, 2009)

The interdependence between enablers of e-government viz., technology, people and process for the effective implementation of projects is well acknowledged. It can explain the varying degrees of success in the project implementation across the country and even within the states to a great extent. Often e-governance is seen to be just technology. Improved connectivity is crucial to e-governance. While the affluent sections have access and easy adaptation to information technology, other sections do not. The experience of successful projects signifies the need to focus on business re-engineering and change management (Bhatnagar, 2009). The re-organisation of processes (system), people and technology under e-governance projects needs to be directed and aligned with the administrative system and the larger society receiving its services. (S N Sangita, 2005) The business processes are re-engineered to improve the quality of services, efficiency and citizens' satisfaction. It results in the reorganisation within the organizations, affecting personal factors such as its work culture, which needs are also crucial.

E-governance in Panchayat Raj Institutions

Panchayat Raj Institutions are designed for rural development and administration. Both these objectives can be approached either using bottom-up or top-down dimensions. While the first one focuses on improving the participation of rural masses at the grassroots level through the mobilisation of local resources and leadership, the second is concerned with ensuring the implementation of inclusive development initiatives of Union and state governments (Ghosh, 2014) The aspirations of decentralised governance coordinate both these dimensions. The landmark 73rd Constitutional Amendment Act, 1992 was introduced to strengthen decentralised governance through Panchayat Raj Institutions. The act structured PRIs to a three-tier hierarchy, with representative bodies and administrative offices at the district, block/taluk, and village levels. This was intended to promote the participation of local people in the development of the area through their involvement in the preparation, execution, and monitoring of development plans and programmes.

Though local governance through PRIs is an excellent concept, in theory, it has many challenges in practice. As a representative body, PRIs were criticised for poor representation, failure to implement their constituencies' participatory decisions, and mismanagement of funds. For meaningful participation of citizens in panchayat institutions, they should have access to information. Such access to information brings transparency in the system, helping people participate in decision-making processes, make informed choices and promote overall accountability of the institution (Ghosh, 2014). In this context, it was recognised that PRIs could perform their constitutionally and legislatively mandated functions much more efficiently when supported by IT capacity.

Local government institutions are the closest to citizens and constitute their primary interface with the government. The relationship between citizens and local authorities tends to be based on proximity as the interests at stake for both parties are closely entwined concerning public services, local development, education, and others. (Ghosh, 2014). Introducing e-governance in PRIs was expected to improve the efficiency of its daily administration and enable better access of services to citizens. Further, supervision by senior officials, policymakers, and even people through public access to information can also contribute to effectiveness. Substantial funds are transferred to PRIs under various central and state-level programmes. Here, it assumes further significance as an accountability tool. It can facilitate the broader social audit of programmes and keep track of funds and

expenditures (Ghosh, 2014). Hence, a targeted and consolidated approach to introducing e-governance in the PRIs was eventually conceptualised.

National e-Governance Plan (NeGP)

At the national level, National e-Governance Plan (NeGP) was introduced in 2006. It was a significant step towards transforming the governance landscape through the integration of technology. It aimed at empowering citizens through providing access to information and ensuring their participation in policymaking. The vision statement of the NeGP states, "make all government services accessible to the common man in his locality, through common service delivery outlets and ensure efficiency, transparency & reliability of such services at affordable costs to realise the basic needs of the common man". Many Central Mission Mode Projects (MMPs) were introduced regarding government functions such as banking, passport/immigration, and visa and foreigner registration. (Commission, 2008)

E-Panchayat Model Mission Project (MMP)

The 73rd and 74th Amendments had directed states to formulise detailed acts to institute Panchayats in the states. As a result, there is unevenness in the devolution of powers and responsibilities to Panchayat institutions among the States. But greater concerns have been its administrative inefficiency, coordination with line departments, and limited involvement as administrative institutions in planning affairs. The efficiency and the prominence of institutions differed from one state to another. States like Gujarat, West Bengal, Karnataka, Kerala, Andhra Pradesh and Goa had initiated computerisation at the Panchayats either for short-term goals or to assist in implementing programmes like NREGA. In June 2007, the Ministry of Panchayati Raj (MoPR) set up an expert group under the Director-General of the National Information Centre (NIC) to evaluate IT Programmes' scope in MoPR and estimate the financial implications of introducing e-governance in PRIs and recommend cost-effective solutions. The Committee took up a consultative method to interact with the States and UTs and evaluated the prevailing standards of computerisation in Panchayats under State Governments' initiatives. (Raj, 2012) The study committee realised the benefits of computerisation even if it had narrow scope. It observed that a more comprehensive approach for the whole country was required to make a cognisable impact on the functioning of the Panchayats to benefit citizens. (Raj, 2012)

Based on the recommendations of the Committee, MoPR conceptualised e-Panchayat Mission Mode Project (MMP). The e-Panchayat project targeted to computerise the functioning of the 2.45 lakh Panchayats (approx.). The stakeholders include the Ministry of Panchayati Raj, Panchayat Raj departments of the states, Panchayat bodies and the citizens. The concerned Central/State line departments like DRDAs and both urban and rural local bodies (ULBs) are also stakeholder institutions. Thus, the project envisaged Panchayat Enterprise Suite to ensure minimum governance standards for panchayats and service delivery platforms. The e-Panchayat project aimed to leverage ICT to transform PRIs into symbols of modernity, transparency and efficiency. This included the automation of internal workflow processes, improving the delivery of services to citizens, capacity building of Panchayat Representatives and officials, social audit, transparency, accountability, efficiency and RTI compliance of Panchayats, improving governance of local self-government (Ministry of Panchayat Raj, 2019).

FIGURE 1. Panchayat Enterprise Suite- Relation between the Function
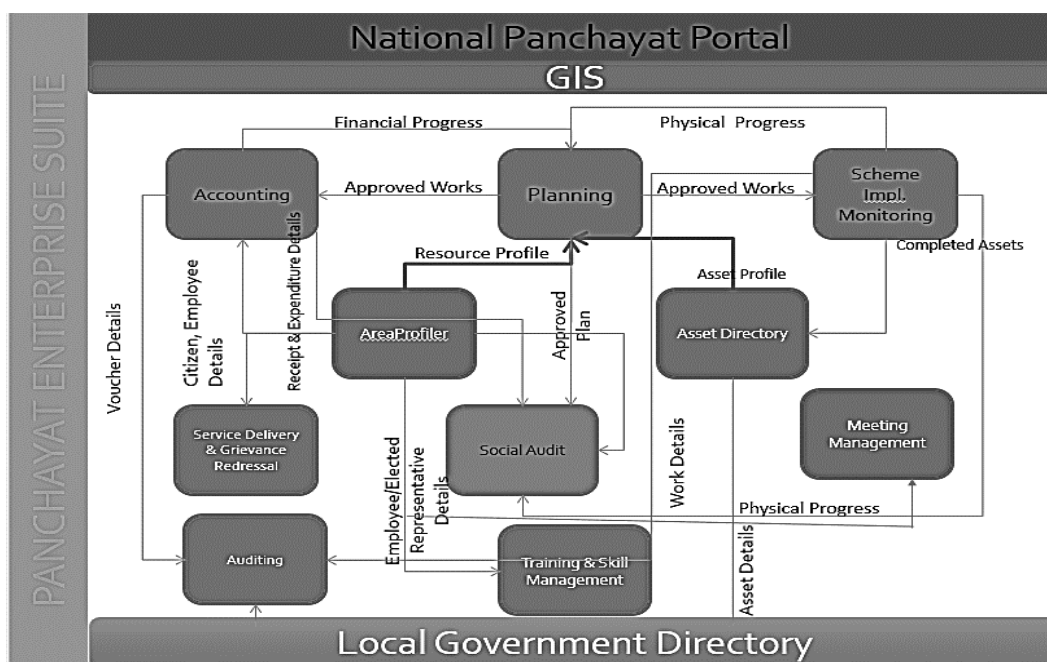
Based on the comprehensive study commissioned by the ministry, the information and service needs of the stakeholders were identified, the process re-engineered, and the detailed project report identifying 12 functional areas in panchayat administration required automation were submitted. The focus of core applications was allied to its internal functions such as planning, monitoring, implementation, budgeting, accounting, and social audit. National Informatics Centre provides technical support to all e-governance projects, from project formulation to updating it with new technologies. Under the e-panchayat MMP, NIC has formulated PES and its service end support for users. The software base of 11 applications constitutes Panchayat Enterprise Suite; the cyber face of the project is available at https://www.panchayatonline.gov.in. (Ministry of Panchayat Raj, 2019) The table below lists these applications and their brief description.

TABLE 1. Applications constituting the PES and its Description

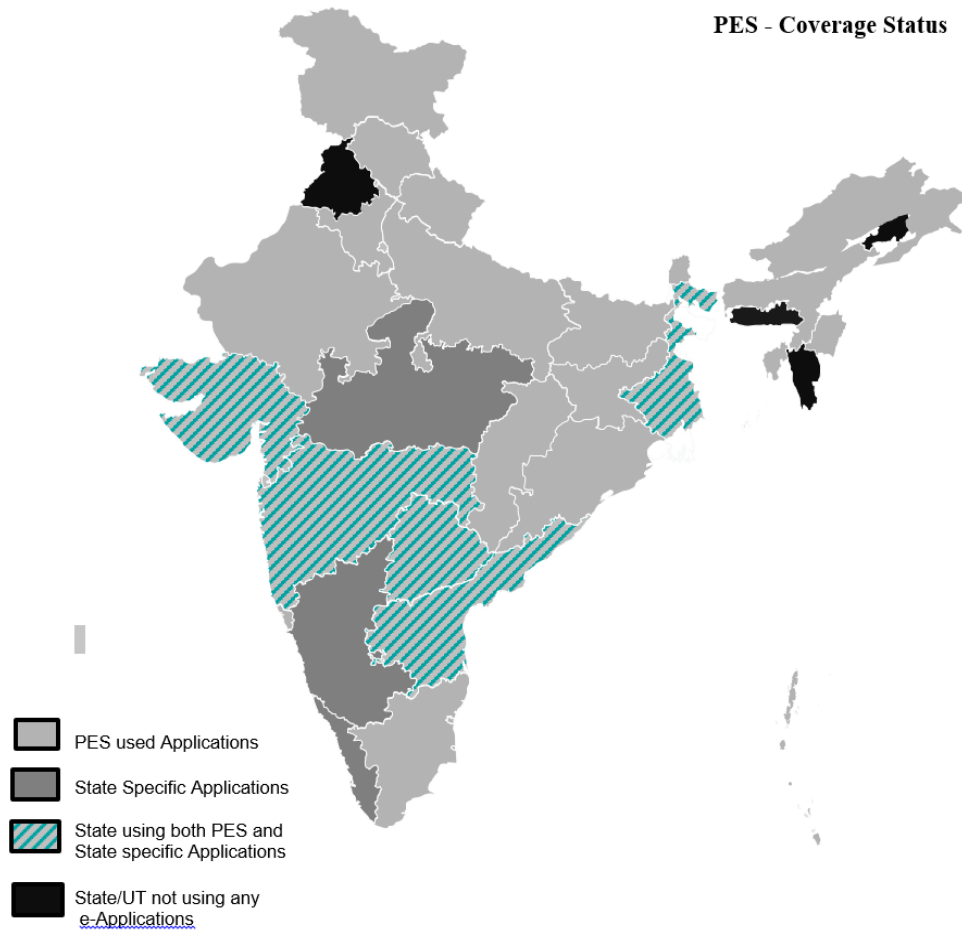| Sl. No.	Application	Description
1	PRIASoft	Captures receipt & expenditure details through voucher entries and automatically generates cash book, registers, etc.
2	PlanPlus	Helps Panchayats, Urban Local Bodies and line departments in preparing Perspective, Annual and Action Plans.
3	National Panchayat Portal (NPP)	Dynamic Web site for each Panchayat to share information in the public domain.
4	Local Government Directory	Captures all details of local governments and assigns unique code. Also maps Panchayats with Assembly and Parliamentary Constituencies.
5	ActionSoft	Facilitates monitoring of physical & financial outcomes/outputs under various programmes.
6	National Asset Directory (NAD)	Captures details of assets created/maintained; helps avoid duplication of works.

7	Area Profiler	Captures geographic, demographic, infrastructural, socio-economic and natural resources profile of a village/panchayat. Universal database for planning of all sectoral programmes and also provides details of Elected Representatives, etc.
8	ServicePlus	A dynamic metadata-based service delivery portal to help in providing electronic delivery of all services in all States. The functionality of the erstwhile Grievance Redressal Application has also been subsumed into this Application.
9	Social Audit and Meeting Management (SAMM)	Captures details of statutory meetings held at ZP/BP/GP levels and prepares reports for social audit
10	Trainings Management	Portal to address training needs of stakeholders including citizens, their feedback, training materials etc.
11	Gram Manchitra (GIS Application)	Gram Manchitra is a geo-spatial planning application for Gram Panchayat users to visualise the various developmental works better to be taken up across different sectors and provide a decision support system for Gram Panchayats Development Plan.

Source: https://www.panchayat.gov.in/

States had begun initiating computerisation of the department and introducing e-governance measures by the late 2000s. States like Gujarat, Rajasthan, Assam, and Karnataka had even initiated the computerisation of Panchayats and provided e-services. By the time PES was introduced under e-Panchayat MMP, certain states were already developing their software modules to match respective administrative and linguistic conveniences (CIPS, 2017). Further, the need for software systems catering to the states' specific roles upheld the requirements of state models. Thus, states endorsed either PES or used their software applications for similar purposes, but they will have to integrate them with national-level information systems. The state-specific PES application becomes significant, especially in redressing language concerns and the state-specific role of the Panchayats. For instance, non-Hindi speaking states, especially South India, prioritised developing service delivery applications and other administrative functions.

All the states have been mapped under LGD and other software at different levels of implementation. Though all state-specific e-panchayat software needs to integrate into central software enabling single-point access, there is a varying degree of uniformity in this regard. The map below shows the coverage status of PES applications across states in India.

FIGURE 2. Map of PES Coverage Status

PES - Coverage Status

PES used Applications

State Specific Applications

State using both PES and State specific Applications

State/UT not using any e-Applications

Source: panchayatonline, 2019

A new trend in e-governance is emerging due to the increasing user base of smartphones across the country. The increasing smartphone usage has created awareness and user-friendliness among the common people and has also positively influenced the employee willingness to use mobile phones for office work. The accessibility concerns of e-governance both for citizens and functionaries can be easily addressed in m-governance. Thus, unlike computerisation, adoption of Mobile Information systems in Panchayat Raj Institutions has been easier, without much resistance or demand intensive training. The E-Gram Swaraj mobile application was initiated under the e-panchayat MMP in 2020 to strengthen e-governance in PRIs. Attention was even paid to overcome the shortcomings of existing software and improve transparency by emphasising decentralised planning, progress reporting, and work-based accounting.

E-Gram Swaraj has an open-source, user-friendly interface, supports interoperability and facilitates effective monitoring through its integrated workflow-enabled architecture. This has a single platform architecture, consisting of GP Profile, Panchayat Planning, monitoring physical and financial progress, asset management, spatial planning, geo-tagging of assets and payments. As a single user-friendly portal, it enables real-time monitoring of the progress of expenditures and funds through eGramSwaraj- PFMS Interface. Further, as an extension of the web portal, its m-governance application has also been launched. According to the annual report of the Ministry of Panchyati Raj, in the 2020 -2021 financial year, 1,71,864 gram panchayats were on board in eGSPI interface (egramswaraj, n.d.).

In the transition towards e-governance, re-engineering the departmental processes is important. Both reconceptualising the complex administrative processes needs and ensuring the user friendly and effectiveness of the interface needs to be balanced here (Gupta, 2008). Beyond its technical nature, the challenge is ensuring that the department's functionaries adapt and transition to the new realities. Each department and its hierarchy of functionaries perceive themselves as most important or can even disregard the needs and functions of other departments. Such power dynamics significantly affect the implementation of projects at the state and organisation levels. In addition, change management within the organisation becomes another crucial factor. "It is not just the technology that is key to productivity and growth, it is the ability of people to develop and use technology" (Gupta, 2008). Apart from the infrastructural and communication issues, effective human resource management in the respective departments and local bodies is essential. So, organisational development is crucial to change management, indicating a blend of behavioural science, technology, and the collective problem-solving skills of the organisation (Bhatnagar, 2009).

Change management is decisive for the successful implementation of any e-governance project, which depends on the employee skills, approval, understanding, and belief that the change is good for the organisation. While factors such as computer literacy and infrastructure facilities are focused, there is a need to examine the role of organisational behaviour as part of change management. In this context, PES's effective use depends on the leadership within the PRI hierarchy, employees' motivation to adopt new technology, and their sensitisation to adapt to the new work culture resulting from the change. (Gupta, 2008) So, the implementation design of projects like e-panchayat needs to ensure features of a participative system. Similarly, the acceptance and usability of the portals by local administration functionaries is influenced by social, infrastructural and accessibility factors. Another challenge regarding such change management is the transition process, where the complex interdependence surrounding change among its stakeholders is not managed. (Gupta, 2008)

The issues present in panchayath governance can be broadly understood as institutional, technical issues and behavioural problems. The benefits of introducing e-governance at an institutional level extend beyond its technical domain, bringing a cross-sectional impact resolving many challenges faced by other domains. For instance, from a behavioural dimension, the directional and lack of stability in leadership, lack of teamwork, individual's performance orientation, not clearly defining the roles and responsibility, lack of motivation and with respect to work culture, lack of citizen focus and lack of emphasis on quality are the major challenges faced within the organisations. Similarly, other concerns such as regarding the quality standards of governance and services within these institutions inefficiency, lack of responsiveness, lack of good behaviour, lack of transparency and accountability are addressed through such initiatives. (Bhatnagar, 2009)

E-governance enabled environment will promote participatory leadership, greater employee involvement, empowerment, and good working conditions instil responsibility and accountability. (Gupta, 2008) E-panchayat project, for instance, intervenes in the work culture of Panchayat bureaucracy, forcing it to shift from the traditional top-down hierarchy based on supervision and control towards a more performance-oriented approach. Such interventions will bring a shift in the bureaucracy structure and even impact the organisation's effectiveness, making it more citizen-oriented. Thus, the objectives of decentralised governance are further strengthened through this initiative.

In governance reforms, for decades, the human resource dimension in public service has generally been neglected. Organisational culture, role clarity, motivation, leadership, teamwork, and organisational effectiveness are major concerns in adapting reforms by organisations (Gupta, 2008). In the PRIs, the effectiveness of human resources is affected due to a lack of technical capabilities and issues in organisational behaviour. Its institutional

setup, though the decentralised organisation, assumed a centralised character in its functioning. The focus of the PRIs was more on revenue-related matters, and citizens' requirements were handled in an anachronistic manner. Further, lack of responsiveness, tendency not to appreciate citizen's needs, lack of appreciation for transparency and accountability permeated the work culture of its functionaries. In such a scenario, there is a need for leadership or champions of e-governance within the panchayat institutions to handle their fear of change and even administrative and political hurdles that would compound the already existing gap. (Pandey & Sekhar, 2011) Such situations lead to confusion, poor working conditions, lack of morale, lack of involvement of functionaries, lack of efficiency in the work, lack of citizen management during service delivery.

Along with the initiatives at the national level, some states had a multidimensional approach towards implementation. They ensured the development of participative and team-based structures, paid attention to the training needs of employees, and provided an egalitarian layout, enabling stable and effective migration towards the digital platforms. (Gupta, 2008) (P K. S., 2016) The differing success rates between the states can be attributed to state leadership's sound personnel management strategies to transition towards citizen-oriented work culture. One of the leading examples in this regard is the effective implementation of the project in Kerala.

A Case Study of Kerala

Historically, the performance of Panchayat Raj institutions in Kerala has been notable, especially in comparison with other states. Further, it is one of the pioneer states to begin computerisation and introduce e-governance for Panchayat institutions. Thus, it is an ideal case study to understand the benefits and issues of State-specific applications in the unified E-panchayat model.

The enactment of the Panchayat Raj Act, 1994 brought into existence the present model of the Panchayat system in Kerala. It provides for a three-tier structure, viz., village panchayat, block panchayat and district panchayat. The state, over a period, has widened the scope of its functioning beyond civic functions to include social welfare and developmental projects and local resource mobilisation. The extent of financial devolution to Panchayat institutions in Kerala is a notable feature of the Kerala Panchayati raj system. Kerala has a separate budget window for local governments under appendix IV and hence systematically receives fiscal transfers. (P K. S., 2016) The 14 districts of the state are sub-divided into 152 block Panchayats and 941 Gram Panchayats. There are 60 Municipalities and 5 Corporations. All these institutions have basic infrastructure facilities such as buildings, vehicles, staff, and internet connectivity (P N., 2014). Thus, the local self-governments in Kerala are distinct from the rest of the country regarding their powers and functions, resources, and infrastructure.

The local governance system in the state is noteworthy because of the extent of decentralisation. It enables people's participation in development planning, and the part of local bodies in planning and implementing such plans is more significant in Kerala than elsewhere (P K. S., 2016). Regarding the functions, the local bodies are responsible for providing essential services at the grassroots levels—critical services such as health centres, hospitals, and schools managed by the respective local governments. The responsibility of poverty alleviation is also passed down to local governments, especially as it is the implementing authority of centrally sponsored schemes (RULSG, 2010). The same goes for other social welfare activities such as administration of welfare pensions and child care systems, agriculture and allied sectors, road connectivity except for highways and major district roads, and sanitation and rural water supply.

Kerala was one of the pioneer states to introduce computerisation and initiate e-governance in local governance, understanding its significance. The state government set up Information

Kerala Mission IKM in June 1999 to strengthen local self-governance through computerisation and developing ICT applications. A comprehensive study was conducted covering all aspects of the local governments with the participation of the local government personnel before the project was initiated. Based on the report, application suites covering different aspects of local government functioning were developed by IKM to establish efficient and responsive systems for good governance and improve public service with comprehensive citizen interface mechanisms, community Information Systems, etc. (Mission, 2018-19)

The implementation of the project by IKM happened in a phased manner. It focussed on developing an application related to different aspects of Panchayat functioning. The applications are developed to cater to different aspects of e-governance such as service delivery, administrative convenience and public information. They are combined into a single portal or being integrated into a single portal. For decentralised planning at the local level, Sulekha was developed as a plan monitoring system. Sevana portal handles civil registration for essential statutory documents of birth, death, marriage, and others. Sevana Pension, on the other hand, is deployed for efficient and transparent handling of social security schemes. Sanchitha is a repository of acts and rules relating to local bodies. Saankhya is the accrual-based double-entry accounting application for all local governments. For faster, accountable, and traceable decision making, Soochika is developed as a file management system and provisions for a status update and grievance redressal. Sanchaya is the revenue and license system for the computerisation of revenue systems in local bodies. Sanchita is the information repository of all rules and acts relating to local bodies, and Sthapana is related to payroll and PF accounting of Panchayath and Municipal personnel. As a decision-making support system tool, Sakarma was introduced to aid the handling of council and committee meetings, recording agenda and minutes, and even map out best precedence and practices across local governments based on keywords. (Mission, 2018-19)

Panchayats and Municipalities can grant building permits as per the Kerala Municipal Building Rules. The Sanketham application ensures transparency and efficiency in the process and makes access to building permits hassle accessible. As a Financial Management System, the Subhadra application was developed for all budgeting-related activities. The Sachitra application in tune with Gram Manchitra under PES enables registration of local governments' assets and creates a geospatial database in a map suite (Mission, 2018-19).

TABLE 2. Status of implementation of e-panchayat software developed by Information Kerala Mission as per official data.

IKM Application Software				
Sl No	Software Module	Online	Offline	Not Initiated
1	Sevana LB Module	1033	1	0
2	Common Marriage	1032	1	1
3	Common Marriage e-Filing	1033	1	1
4	Sevana Hospital Kiosk	210	8	73
5	Sevana Web Transfer	1033	1	0
6	Sevana Pension	1034	0	0
7	Sulekha	1200	0	0
8	Sanchitha	1200	0	0
9	Samveditha	1200	0	0
10	e-Payment	982	6	28
11	Sanchaya LB Web	1033	0	0
12	Sanchaya Saankhya Integration	993	4	17
13	ProfessionTax(Web)	4	2	97
14	Profession Tax (Local)	3	0	90

15	Rent on Land and Buildings	5	1	94
16	D & O Licence(Urban)	25	2	67
17	Soochika LB	1166	13	11
18	Soochika Backend	880	136	160
19	Sthapana	1051	12	68
20	Sachitra	1198	2	0
21	Saankhya	1200	0	0
22	Sakarma	1134	6	53
23	Sanketham	1035	3	0

Source: Information Kerala Mission, 2020

The above table shows the status of implementation as of January 2020. Panchayats bodies in the state are at different stages of integrating these applications into their system. For convenience and efficiency, all the local bodies and line departments related to the service delivered through these applications are combined to form Samvedhitha, an LSGD web portal. The application software is at different levels of implementation across the local bodies across the states.

With regard to m-governance, in 2015, the Local Government Department launched the Samagra application. It was developed by Information Kerala Mission to deliver local government services through a mobile application. It has expanded to include more than 25 services provided by local bodies, such as issuing birth/death/marriage certificates and their verification, File tracking, building permit and property tax details, government orders, details of elected representatives of respective bodies, pension disbursement details and status, tender notification and many more (Information Kerala Mission, 2020).

The adoption of e-governance in the state can be attributed to the focus the project has given towards ensuring the delivery system's efficiency. The functioning of local bodies is comparatively prepared for participatory management and citizen-centric management due to its strong institutionalisation. Further, the existence of efficient and reliable network connectivity, the early creation of information society, rigorous capacity building programmes under the leadership of KILA have led to larger efficiency gains in the state compared to many other states. At the same time, there is a scope for further improvement of the software system towards enabling a much more service-oriented IT architecture and transparency and accountability in the approach of governance. (PKS 2016)

Conclusion

The changes in processes and technologies brought out by e-government puts the employees in a double jeopardy. Change management at various levels in e-government. At the policy level, people are enthusiastic and support the reforms for political returns or improved image. But at the management level, it is observed that such changes create the necessity to learn new technologies and at the same time, lead to loss of power. The discouragement and negation of change at this level are the visible manifestations to the change. At the operational level, the new ways of functioning, threat of loss of job and loss of income from bribes becomes a concern for people. Further, they have to perform different roles with altogether different sets of tools. Thus, it evokes responses in the form of lack of proper response, fear of the unknown, and no proper response to the queries raised (Satyanarayana,2006).

As part of change management, measures need to focus on the people of these three levels. At policy level, moulding e-government as a movement and ensuring that emphasis of the project lies in governance rather than on technology. At the level of management, involving management cadre in the project study processes, implementation committees and

appointment of senior administrators as Chief Information Officers can improve their acceptance of the change. Similarly, at the operational level, apart from the workshops and training sessions provided to the employees, involving them in the design and implementation stages can produce a sense of ownership. Thus, employees who looked at the system with a critical and suspect eye, itself would become its best champions. Creation of help desk and teamwork plays a great role in the acceptance of e-government by the employees. (Satyanarayana,2006)

E-governance is not a one-time process. It is continuously evolving with new upcoming challenges. The present set of challenges include the interoperability between the architecture framework of this software, the institutional framework for coordination and sharing of resources/information, and even security and privacy concerns. The technical and legal issues concerning the confidentiality of personal data or even transactional security for financial security demands a strict and effective IT rule and institutionalisation. In this regard, along with an ideal Cyber Security Policy, the adoption of cyber forensics, digital evidence, and other cyber security initiatives are necessary to further strengthen e-governance comprehensively. Thus, with the expansion of e-governance, transparency and accountability of the administrative system need to be revised to include accessibility, privacy and security concerns.

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