

## **Kerala Government Initiatives for Digitalization of Administration**

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### **Abstract**

Kerala holds a prominent position in many aspects among the states in India. The state government is being implementing digitalization projects especially in administrative sector. The digital initiatives, such as *Akshaya*, *m-Keralam*, FRIENDS, KFON, etc. taken by Kerala government in administrative sector, stand as a model to other states. This study tries to understand the major initiatives taken by Kerala government for digitalization of administration and its possible impact on providing quality services to general public.

**Key words: Digitalization, Akshaya, e-Governance, M-Governance.**

### **Introduction**

Kerala is the first digital state in India.<sup>3</sup> The state attained this status by implementing many ICT projects in the state to promote digitalization especially in the arena of state administration. The masterminds behind the digitalization in Kerala are the Kerala State IT Mission and Kerala state IT Infrastructure Limited.

Kerala State IT Mission (KSITM) is being implementing and monitoring many projects such as *Akshaya* Project, IT@ School programme, Kerala State Data Centre etc. to have a digitalized environment in Kerala especially in

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<sup>3</sup>. Cf 'Kerala declared first digital state in India: All you need to know' in *India Today* 2016 Feb. 29. Available from: <https://www.indiatoday.in/education-today/gk-current-affairs/story/kerala-digital-state-311043-2016-02-29> (accessed on November 28, 2019).

administrative sector. KSITM is the autonomous nodal IT implementation agency. It uses the digital technology for the overall development of the state and to ensure quick and efficient delivery of all essential services to common people in real time. Kerala state government supports the mission of KSITM through various ways. This is very clear from the official website of KSITM. “The State Government intends to define ways to leverage on ICT to transform the Public Sector’s internal operations and provision of Government services to the public. This transformation involves providing the services and information on an ‘anywhere and anytime’ basis”<sup>4</sup>.

Kerala State Information Technology Infrastructure Limited (KSITIL) is the apex company formed under the government of Kerala for the development of information technology and information technology enabled services in Kerala.<sup>5</sup> KSITIL helps the government in digitalization by various projects such as Kerala Fibre Optic Network (KFON) and Skill Delivery Platform Kerala etc. These projects enabled the Kerala government to have an elevated position in the ongoing centre government ‘Digital India Programme’.

One of the major achievements of the Kerala government initiatives for digitalization is the digitalization of state government administration, from apex level to grassroots level. By digitalization of state administration, almost all the government offices are become citizen friendly and corruption free. Citizens get their basic services such as online application, certification, agricultural information, e-payment, e-ticketing etc. without any much delay and hardship.

### **Objectives**

1. To study the digitization initiatives, especially in state administration, introduced by the government of Kerala.
2. To examine the various nodal agencies / institutions established by the Kerala government and its missions and ongoing projects, especially in state administration.

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<sup>4</sup> . <http://itmission.kerala.gov.in/who-we-are> (accessed on November 28, 2019).

<sup>5</sup> Cf. <http://www.ksitil.org/about.jsp> (accessed on November 28, 2019).

3. To assess the impact of digital initiatives on the public services to the general public.
4. To suggest measures to further improve the effective implementation of digital initiatives by the Kerala government.

## Methodology

The paper adopts document and analytical method. Data pertaining digitalization initiatives taken by the government of Kerala by way of implementing numerous e-schemes were collected and analyzed for this study. Further, official publications of the government of Kerala, other secondary data from books, journals and web sources had also collected for the study.

## History of Digitalization in Kerala

The information Technology in India started first in the private sector by TCS, WIPRO, and Infosys. Later in 1984 the situation changed by the New Computer Policy of Government of India. This made changes in government's attitude towards IT and this resulted in the growth of IT sector all over India. Then the IT act in 2000 and IT Act 2008 became a mile stone in IT sector. This act legally recognized the digital documents and digital sign.<sup>6</sup>

The Indian initiatives to include IT in governance can be seen from some historical events. "In India, the main thrust for e-Governance was provided by the launching of NICNET in 1987 – the national satellite-based computer network. This was followed by the launch of the District Information System of the National Informatics Centre (DISNIC) programme to computerize all district offices in the country for which free hardware and software was offered to the State Governments."<sup>7</sup> The implementation of IT in administrative sector became necessary by the changes in the economic sector especially due to the influence

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<sup>6</sup>Cf. Shelke, Nikhil. 'History of Information Technology in India and Why the Recent Boom in IT Sector in India' in *India Study Channel*. 2012 Apr. 22. Available from: <https://www.indiastudychannel.com/resources/151102-History-Of-Information-Technology-In-India-And-Why-The-Recent-Boom-In-It-Sector-In-India.aspx> (accessed on November 29, 2019).

<sup>7</sup>'E-governance in India: Concept, Initiatives and Issues' in *Insights*. 2014 Nov. 23. Available from: <https://www.insightsonindia.com/2014/11/23/e-governance-india-concept-initiatives-issues/> (accessed on November 29, 2019).

of liberalization, privatization and globalization. The creation of ministry of IT in 1999 and IT act 2000 helped the e-governing process. But the e-governance process in national level was widened and started properly only by the implementation of National e-Governance in 2006.

History of Kerala digitalization goes back to the early 1990s of 20th century. This started with the formation of information and technology (IT) department in government of Kerala. By various projects the department of IT in Kerala fostered the digitalization processes. Central government started the e-governance process through the National e-Governance Plan (NeGP) in 2006. Kerala government started the digitalization process especially in administrative sector (e-governance) even before it started in national level. “Even before the NeGP, the Government of Kerala was a front-runner in implementing many a citizen-friendly e-Governance projects that served to improve performance, efficiency, quality of service and reduce costs, thereby enabling better utilisation of limited resources.”<sup>8</sup>

The growth of digitalization in Kerala was visible with the announcement of the IT policy in 1998. This promoted the further development of IT sector. The implementation of these policy helped Kerala to have a better position in national level. The first and most important initiative taken under the IT policy was the establishment of the Kerala State IT Mission (KSITM). KSITM is the IT implementation agency working for the department of Information and Technology. It supports almost all the IT projects of government especially the e-governance projects. The vision behind the implementation of KSITM is very clear from the official website itself. “In 1999, Government of Kerala has taken the initiative of implementing a cross-cutting strategy to fully reap the opportunities of ICT with a more efficient and systemic approach, which finally resulted in the establishment of Kerala State IT Mission (KSITM).”<sup>9</sup> The

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<sup>8</sup> ‘E-Governance in Kerala’ in *egov*. 2010 Jan. 1. Available from: <https://egov.eletsonline.com/2010/01/e-governance-in-kerala/> (accessed on November 28, 2019).

<sup>9</sup> <http://www.itmission.kerala.gov.in/who-we-are> (accessed on November 29, 2019).

functions of KSITM are aiming to promote digital innovations and make Kerala No. 1 digital state. It is very clear from its missions themselves. They are following:

- i. Building a bridge of trust between the Citizens and the State through efficient, transparent and open e-Governance
- ii. Advises on and manages the State IT infrastructure
- iii. Spearhead the digital transformation of the State by ensuring stronger governance, prioritization and coordination of ICT development
- iv. Eradicate the issue of digital divide by strengthening the services through *Akshaya*, FRIENDS, Citizen Contact Centre etc in a simpler and intuitive way
- v. Building better e-Government Infrastructure through State Data Centre, Kerala State Wide Area Network, Mobile Service Delivery Platform etc
- vi. Empowering people through giving them digital access to the information & e-Services by means of platforms like e-District, State Service Delivery Gateway etc
- vii. E-Governance enabler by supporting the implementation of significant State initiatives like Kerala Fibre Optic Network (KFON), Public Wi-Fi etc
- viii. Ensures secure authenticated transactions between the Government and Suppliers through online procurement services like e-Procurement & Central Procurement that are aimed at best value for money, timely and accurate payment.
- ix. Empowering employees in the administration as well as the implementation level through Capacity Building programmes
- x. Enhanced service delivery mechanism through district level administration
- xi. An expert advisor for Government on Policy/Standards/Procedures formulation process

- xii. Performs service-wide IT master planning<sup>10</sup>

Kerala was become digitalized by the various initiatives taken by KSITM. The Major historical events under the KSITM are following.

- i. FRIENDS Service Centre was started in 2000.
- ii. *Akshaya* Project was launched in 2002.
- iii. Government Contact Centre-Kerala and State Data Centre 1 were established in 2005.
- iv. Video Conferencing facilities in Offices started in 2006.
- v. Kerala State Wide Area Network established in 2008.
- vi. Common Email Service started in 2009.
- vii. E-District, Malayalam Computing, m-Governance and UID-Kerala were launched in 2010.
- viii. CERT-Kerala, e-Procurement project, Kerala state Spatial Data Infrastructure and state Data Centre 2 were established in 2011.
- ix. M-governance project started in 2012.
- x. Capacity Building and e-Office were started in 2013.
- xi. Digital Empowerment Campaign was launched in 2016.
- xii. M-Kerala mobile Application and Public Wi-Fi started to strengthen m-Governance in 2018.
- xiii. Centralized Procurement and Rate Contract System, E-Office revamped application, Revamped State Service Delivery Gateway Official portal and Tender cum Auction were launched in. 2018.<sup>11</sup>

In 1999 under the local self government department of Kerala, the Information Kerala Mission started for the computerization and networking of local governments. “Information Kerala Mission (IKM), an autonomous institution under Local Self Government Department, Government of Kerala has

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<sup>10</sup> <http://www.itmission.kerala.gov.in/mission> (accessed on November 29, 2019).

<sup>11</sup> Rf <http://www.itmission.kerala.gov.in/milestones> (accessed on November 29, 2019).

been setup with a mandate to strengthen the local self-governance through ICT applications.’<sup>12</sup>

Another mile stone in the digitalization of Kerala is the establishment of Kerala State Information Technology infrastructure Limited (KSITIL) in 2007. “Kerala State Information Technology Infrastructure Limited (KSITIL) is the apex company formed under the Government of Kerala IT Policy for pioneering the development of IT/ITES, Special Economic Zones (SEZs), IT Townships and IT Parks in the State of Kerala.”<sup>13</sup> Projects those are undertaken by KSITIL are following:

- i. Various IT Park in Kannur, Cherthala, Kasargod, Kollam, Koratty and Kozhikode.
- ii. Skill Delivery Platform Kerala
- iii. Technolodge
- iv. Kerala Fibre Optic Network

### **Advantage of Digitalization in Administration**

Digitalization in administration has a wide range of advantages such as paper free documents, financial benefits, speedy process, error and risk of loss are less compared to old methodology, transparency and efficiency in offices,<sup>14</sup> accountability, convenience, improved customer service, increased access to information,<sup>15</sup> etc. In Kerala too we can see these advantages. Among these speedy process, transparency and improved customer service are well visible in Kerala administration. Once, Kerala administration was notorious for its redtapism (unwanted delay) and corruption. Now by the emergence of digitalization people get the services in time.

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<sup>12</sup> <https://ikm.gov.in/index.php/en/mission/1> (accessed on November 29, 2019).

<sup>13</sup> <http://www.ksitil.org/about.jsp> (accessed on November 29, 2019).

<sup>14</sup> Cf ‘Printed vs digital document – The advantages of dematerialization’ in *Doxee*. 2019 Oct. 17. Available from: <https://www.doxee.com/2019/10/17/advantages-of-dematerialization-digital-documents/> (accessed on November 29, 2019).

<sup>15</sup> Cf ‘E-governance in India: Concept, Initiatives and Issues’ in *Insights*. 2014 Nov. 23. Available from: <https://www.insightsonindia.com/2014/11/23/e-governance-india-concept-initiatives-issues/> (accessed on November 29, 2019).

## **Major digital Projects in Kerala Administration**

The digitalization in administration becomes effective and meaningful only when it reaches to the citizen. In this digital era the every government takes necessary steps to have the benefits of digitalization to its citizen. Kerala government implemented many projects through KSITM and KSITIL to give e-services and to make administration transparent and easy. The most popular and important projects are following.

### **FRIENDS (Fast Reliable Instant Efficient Network for Disbursement of Services)**

FRIENDS is the first initiative taken by KSITM in the administrative sector. It was launched in 2000-2001 at every district headquarter. It was mainly designed to have payments to different departments without much delay. “FRIENDS (Fast Reliable Instant Efficient Network for Disbursement of Services) *Jan Sevana Kendrams* has been designed as a single-window facility where citizens can make government related transactions with ease & comfort and without delay. In FRIENDS bills/dues to government are collected under a common roof. Adopting an easy-to-remember acronym ‘FRIENDS’, the facility is now operational in all the 14 districts of Kerala.”<sup>16</sup> It is the single window facility which provides any centre any payment system. By this project citizen can access government services, pay bills, taxes and obtain information from government.

### ***Akshaya***

In Kerala, e-governance became most popular and citizen friendly by the launching of *Akshaya* project by KSITM in 2002. *Akshaya* is also a service delivery platform. It is the centre where the citizen gets all most all the services related with the administration without direct contact with the government offices. Along with that it provides basic computer literacy programmes to the

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<sup>16</sup> <https://kerala.gov.in/friends> (accessed on November 29, 2019).

needed. Every centre is equipped with basic facilities of e-governance. This project made huge implications in the e-governance of Kerala. “Kerala is the first State in India to take initiative for the mass transformation of ICT by the implementation of district-wide e-literacy project ‘AKSHAYA’ in 2002, with an intention of ‘Empowering Kerala’. The venture paved the way for the migration of Kerala to the first e-literate state.”<sup>17</sup> The *Akshaya* project was implemented in two phases. In the first stage the focus was with computer education. By this phase the project gave basic e-literacy to the people at least one from a family. The second phase was related with the services. The functions and the aim of *Akshaya* project is well defined in the official website of *Akshaya* as its mission. The missions of *Akshaya* are following:

- i. To bridge the gap between the ‘Information Rich and the Information Poor’.
- ii. Transformation of Governance to provide efficient, transparent and convenient services to the Citizens through Information & Communication Technologies.
- iii. Improving public service delivery by making services accessible to ‘the common man’ in her/his locality.
- iv. To improve e-literacy in underserved areas and to provide a platform for Government to citizen services through a public-private partnership.”<sup>18</sup>

*Akshaya* project played an important role in making Kerala as the first e-literate state in India. There are more than 2700 *Akshaya* centres in Kerala which provides more than 255 services to the citizen. The services are available to the people in the remote areas because there are at least two *Akshaya* centres in every *Panchayath*. Nowadays *Akshaya* centres work as the medium between government and citizen in providing services. People give almost all the applications to the government offices for different certificates through these

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<sup>17</sup> <http://www.akshaya.kerala.gov.in/about> (accessed on November 29, 2019).

<sup>18</sup> <http://www.akshaya.kerala.gov.in/about/mission> (accessed on November 29, 2019).

centres and they get the certificates from the centres which are digitally signed by the concerned officers. They provide quality services at lower cost with transparent communication. Besides they arrange skill development programmes to the citizen. One of the most important features of *Akshaya* is that it provides services in local languages too. This creates a citizen friendly atmosphere in *Akshaya*.

### **Kerala M-Governance**

At present in this era of technology everything is available in the fingertips. This is very clear in every sector especially in shopping. This is happened by the emergence of smart phone. Government too made use of this opportunity by providing its services through mobile phones. M-Governance means Mobile Governance. It is the most advanced form service rendering in the administrative sector. The definition of M-Governance makes the concept very clear. “M-Governance can be defined as a strategy and its implementation to leverage available wireless and new media technology platforms, mobile phone devices and applications for delivery of public information and services to citizens and businesses. M-Governance is not a replacement of E-Governance; rather it complements it.”<sup>19</sup> As this explains M-Governance provides a better e-governance. It makes the administrative sector more people friendly and less costly. The services are available at anytime and anywhere.

In Kerala M-Government project is launched by the KSITM. Even though e-Governance in Kerala functions very well KSITM launched this project in order to give services even a step closer. Kerala state initiated M-Governance to use the fast growing mobile usage to deliver services to common people. This provides a time and space free atmosphere to the citizen in having the better services. As in the case of other technological implementations the M-

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<sup>19</sup> Debora M. ‘M-Governance in India: Issues and Initiatives’ in *International Journal of Computer and Mathematical science*. 2018 Feb, Vol.7, issue 2, 198. Available from: <http://academicscience.co.in/admin/resources/project/paper/201802101518269385.pdf> (accessed on November 30, 2019).

Governance also implemented first in Kerala.<sup>20</sup> By launching M-Governance KSITM aims a better performance in administrative sector and which provides a better relation between the citizen and government. “This is a powerful and expanded transformation that enhanced the capacity to extend access to existing services, to deliver new services and thereby stimulating the active participation of Citizens in Government operations.”<sup>21</sup> Government provides the services through different mobile applications, SMS, MMS, Bluetooth Kiosks, USSD, voice applications etc.

The M-Governance services get popularity because of its benefits. The most important benefit of this project is that anytime anywhere availability of services and data entry. Besides this is less costly, ensures real time services, status tracking is possible, simple form, wireless etc. KSITM developed *mKeralam* mobile application to provide more services through M-Governance. This is available in Google play store. People can download it and enjoy the services. It provides more than 100 services of different departments. In Kerala different departments such as women’s commission, public service commission, film development corporation, motor vehicle department, Kerala forest department, Kerala police, lottery department, KSRTC, water authority, *Pareeksha bhavan*, Kerala financial corporation, different universities, tourist department, agricultural department etc use M-Governance very effectively.<sup>22</sup>

### **Kerala Fibre Optic Network**

Kerala Fibre Optic Network is the recent initiative taken by Kerala government in the digitalization process. This project was announced on November 6, 2019. This project aims to give free high speed internet connection to 20 lakh families who are below poverty line and to set up Wi-Fi transmission

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<sup>20</sup> Cf ‘After Kerala, Karnataka launches m-Governance services’ in *Next Big What*. 2012. Available from: <https://nextbigwhat.com/karnataka-mgovernance/> (accessed on November 30, 2019).

<sup>21</sup> <http://www.itmission.kerala.gov.in/projects/mgovernance> (accessed on November 20, 2019).

<sup>22</sup> Cf Nizar P. ‘A Study of M-Governance initiatives in Kerala’ in *EPRA International Journal of Economic and Business Review*. 2014 Nov, Vol. 2, Issue 11, 69-70. Available from: <https://eprawisdom.com/jpanel/upload/articles/235am10.Nissar.%20P.pdf> (accessed on November 30, 2019).

centres across the state. This project is undertaken by KSITIL. This project is expected to complete by December 2020. This project is announced in relation with another announcement which declared internet connection a basic right of citizen in Kerala. This is the first time a state declares internet connection as the basic right and provides free high speed internet connection.<sup>23</sup> By this government aims to provide internet facilities to all and this will reflect in the administration.

### **Output of Digitalization in Kerala**

Digitalization in Kerala especially in administrative sector made Kerala as the first digital state in India. Major digitalization initiatives and its services first started in Kerala. These initiatives provide a better atmosphere in administrative sector. They help the citizens to have an easy access to administration and to get services in time. They ensure timely data entry and updating. File transfer within one department and between departments became easy. Most important output is the corruption less government offices. By this the citizens are more aware about the functioning of the government and they understand the correct procedure to get the services or there are centres to guide them properly.

The digitalization in Kerala helps other sectors too. Kerala is in highest position in educational sector, health sector, service sector, media, banking etc. One of the reasons for this position is the digital awareness and initiatives.<sup>24</sup> Digitalization helps the government to implement their policies in time and to communicate these policies to citizens.

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<sup>23</sup> Cf. Ravi, Reethu. 'Internet Now Basic Right In Kerala! First State In India To Provide Free High-Speed Connection To 2 Million Poor Households' in *The Logical Indian*. 2019 Nov. 11. Available from: <https://thelogicalindian.com/good-governance/kerala-free-internet/> (accessed on December 1, 2019).

<sup>24</sup> Cf. Mathews V.K., 'Kerala Best Suited for Digital Era' in *Deccan Chronicle*. 2018 March 21. Available from: <https://www.deccanchronicle.com/nation/in-other-news/210318/kerala-best-suited-for-digital-era.html> (accessed on December 1, 2019).

**Proposal for further improvement**

Digitalization made significant changes to every sector in Kerala especially in administrative sector. Along with the benefits of digitalization there are some challenges also such as high initial cost, lack of privacy, lack of awareness, lack of connectivity, miss use of technology, security issues, language issues, lack of facilities in remote areas etc. The digitalization initiatives can achieve the whole benefits only when they reach to all without any barrier and inequality. This aim can achieve only when we can overcome these challenges by proper measures. The government should hear the needs of the citizen and drawbacks related with the implemented projects. Besides, there are many experts from Kerala who are working abroad and outside of Kerala. If government can ensure their services properly it will help the digitalization. The proper updating of projects can overcome the challenges. Thus we can achieve the fruits of digitalization in a better way.

**Conclusion**

The digitalization initiatives taken by Kerala government help the Kerala to stand in an elevated position in this changing scenario. They are very appreciable and model to other states. These initiatives help governments, citizen, NGOs, Civil Society organisation etc. to make the administration more transparent, accountable and corruption free. The citizens are really satisfied in the changes that came through these initiatives. By different digital initiatives the people get updated information about various projects of government and they can act accordingly. The initiatives from government, the proper works of implementing agencies and the cooperation of citizen lead the digitalization in to success. The supports from the local government have an important role in this success. The achievements of Kerala in digitalization initiatives are very remarkable. Proper functioning of these initiatives can make a better atmosphere in Kerala.

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