ROLE OF DIGITALIZATION IN URBAN GOVERNANCE: A VIEW ON RAJASTHAN

Dr. Lokeshwari*

ABSTRACT

Information technology plays a pivotal role in present society. IT has revolutionized the service delivery system and also socio-economic progress. Digitalization has enabled automated services as a result citizens have been benefiting from various government schemes in a transparent manner. The study explores an in-depth systematic content analysis of digitalization initiatives by Rajasthan government for urban development, and also their implementation, outcome and beneficiaries. Rajasthan Government is achieving the motto of effective, efficient and welfare state through digitalization and e-governance. Not only this, it has enhanced accountability and transparency in the governance. It has framed digitalization canopy which encompasses various aspects of governance like Public Interface for Service Delivery, Common Platform, Office Automation, Applications and Software, and iStart.

Keywords: *Digitalization, E- Governance, Urban Governance, Smart Cities.*

_____

Introduction

Nowadays, more than half of the world's population is urbanized, generating more than 85% of global GDP *(United Nations, 2019, Ellen MacArthur Foundation, 2019).* At the same time, cities are attributed at least 75% of the exploitation of natural resources, 75% of greenhouse emissions *(United Nations Environment Programme, 2017)* and 50% of global waste production. As a consequence, criticalities related to waste management, renewable energy sources, water management, social cohesion and health prevention, material flows optimization, biodiversity safeguarding, transport effectiveness, land use policy, atmospheric pollution, infrastructure obsolescence, and economic growth have been produced in urban areas.

IT has transformed the service delivery system and also socio-economic progress. Digitalization has enabled automated services as a result citizens have been benefiting from various government schemes in a transparent manner. In urban governance, it addresses a wide range of urban problems like traffic congestion, energy shortage, environmental pollution, providing of civic amenities, social aspects (i.e. discussing elements such as justice and equity, social inclusion) of the smart energy transition.

Digitalization of products and services shortens distances between people and things. It increases mobility. It makes network effects decisive. It allows the use of specific data to such an extent that it permits the satisfaction of individual customer needs -be it consumers or businesses. It opens up ample opportunities for innovation, investment, and the creation of new businesses and jobs. Going forward it will be one of the main drivers of sustainable growth. **(Gaspar et al.)**

Digitalization: Essential for Creating Smart Cities

Smart-sustainable city initiatives selectively integrate digital and environmental agendas via entrepreneurial forms of urban governance. Digital technologies enable sustainable innovation and can resolve challenges as increased demand of energy and smart transportation. Social aspects like safety in cities and the availability of education and health services are other examples of how digital technology can transform cities. Digitalization contributes efficient urban governance and enables implementation of objectives of a smart city.

Digitalization and City Environmental Governance

_____

* Assistant Professor, Department of Sociology, University of Rajasthan, Jaipur, Rajasthan, India.

Cities' ambience and environmental quality can be improved through the use of digitalization. Researches show that the development of digital economy can provide strong technical support for environmental governance (**Kwon, O.; Lee, N.; Shin, B**. and **Shin, D.H.; Choi, M.J**.). The development of digital economy can promote the transformation and upgrading of industrial structure (**Ishida, H**.), stimulate the R&D and innovation vitality of enterprises and promote cleaner production of enterprises (**Xie.; Feng; Zhang).** It can also improve the enthusiasm of urban residents to participate in environmental governance by promoting the dissemination of environmental protection information (**Johansson, L. et al.)**. **Ang and Seng** summarized the latest developments of big data systems in various representative studies on urban environments, including air pollution monitoring, assistive living, disaster management systems, and intelligent transportation.

Literacy and E-Governance

There is a great relationship between literacy level of the citizens and spread of digitalization and better implementation of e- governance. **Chatterji (2017)** has conducted a research to study adaption challenges of administration involves in digital urban projects and concluded that digital literacy and network infrastructure requires improvement for successful adaption of digital projects.

Kumar (2013) concludes that literacy is the major factor in the implementation of e-governance, and various literatures proved that those states are leading that are offering, at a higher rate, e-services in a better way.

Bhuiyan (2011) in his study of service delivery in Bangladesh. He finds that communal and traditional factors such as gender, poverty, education level, caste, age, and social segregation, etc. directly hamper the use of computers in developing countries.

According to **Ebrahim and Irani (2005)** and **Kumar (2017)**, organizational and technological aspects are required for the adoption of E-Government in public sector organizations. It involves the technology management, IT infrastructure, internet connectivity, etc. 'Technology amplifies the citizen's participation and information flow in the electronic services, since there is a strong optimistic correlation between ICT and e-governance development **(Bolgherini, 2007)**'.

Digitalization and Prevention of Corruption

Corruption affects the performance of governments, distorts the allocation of resources and erodes public trust in institutions and the rule of law. Digitalization is necessary to build effective, accountable and transparent systems so to efficiently deliver services. UNDP support North Macedonia to prevent corruption there and is helping for more than a decade to establish an efficient system for local self-government and to practical solutions for combating the corruption at the local level. UNDP's Citizen Satisfaction Surveys demonstrate that the biggest dissatisfaction among the citizens is with the citizens' acknowledgment of the municipal budget spending, but also with dealing with corruption **(UNDP Report, 2019).**

In North Macedonia, UNDP has introduced digital tools to support an increased level of transparency, accountability, accessibility and inclusion at the local government level. It created *informed knowledge, effective oversight mechanisms, and transparent leadership at the local level*. UNDP helped in installation of *web streaming equipment*, enabling municipal councils to live-stream their council sessions and in introduction of an *e-dashboard* to 24 municipalities to provide transparent financial information and civic monitoring and electronic payment of taxes and public services.

Digitalization Initiatives by Rajasthan Government

This research is descriptive study of the digitalization initiatives by Rajasthan government for urban development. Based on secondary data this study describes the digital schemes, approach and objectives behind them, their outcome and progress and their beneficiaries, audience and stakeholders. Electronic governance (e-governance) is the application of information and communication technology (ICT) to provide government services to citizens, organizations and government digitally **(Heeks, 2004)**. E-government comprises strategies and course of actions; carried out through person, substantial technology and procedures. Digitalization and ICT make a significant contribution to the achievement of good governance. Since 1970s, e-governance initiatives were successfully implemented and achieved new growth level in the developed and developing countries. Rajasthan Government is boosting e-Governance through following initiatives:

- E-mitra
- Emitra Plus
- Bhamashah Scheme
- Rajasthan Sampark

- E pds (E-Public Distribution Systems)
- RajDhara
- Bsby (Bhamashah SwasthyaBima Yojana)
- Brsy (Bhamashah rojgar Sirjan Yojana)

In September 2022, the government of Rajasthan announced that it will distribute free Smartphone with internet access to 1.35 Cr women under Mukhyamantri Digital Seva Yojana. The government has not only adopted technology to ease delivery and execution of citizen-centric services so, Bhamashah Yojana, the largest integrated DBT scheme run by any state in India. *eMitra* are extending the reach of government to practically every doorstep.

Rajasthan DigiKit comprises of *Raj e-Vault*, *Single Sign On (SSO)*, *Raj e-Sign* and *RajMail* and these have provided it residents their personal digital space. It is the first state to offer *e-mail addresses in Hindi* to its citizens. In addition to this, various other services such as CM Helpline, Electronic Public Distribution System, iStart startup platform, Abhay Command Centre, Rajasthan e-Gyan and 'Suraaj' are run by the state. Thus, with the objective of *'Minimum Government, Maximum Governance'*, the state has experienced good governance through using emerging technologies in its key sectors like infra structure, education and health.

Through DBT scheme Rajasthan has transferred more than Rs 19,000 crore directly in the bank accounts of over 5.70 crore members and it has created digitally advanced public distribution system to distribute products via fair price shops. The state has started six Abhay Control Command Centres to provide quality healthcare and Bhamashah Swasthya BimaYojana to provide healthcare insurance. By Raj e-Gyan, digital content to students is being provided. Following are the few departmental examples showing digitalization works carried by them:

- **Online Marriage Registration in Rajasthan**

In Rajasthan, marriage registration is made compulsory through *Rajasthan Compulsory Registration of Marriage Act, 2009*. Right from downloading the registration form to filling and fetching marriage certificate the process is online. In Rajasthan, marriage, birth and death registration is done under **Rajasthan Civil Registration System** of Government of Rajasthan, Directorate of Economics and Statistics. Certificates can be fetched through **DigiLocker**.

Benefits of Digitalization
- Earlier it was time and money consuming to make frequent visits to the registrar's office for acquiring marriage certificates.
- Now after applying online, within 3 to 7 days of applying the applicant will get their marriage certificates.
- Now the registrars will not be able to keep issuance of certificates pending for long. Before it was a tedious task to monitor marriage registration work manually.

- **Online Birth- Death Registration in Rajasthan**

Similarly, birth and death registration in Rajasthan is done under **Rajasthan Civil Registration System** of Government of Rajasthan, Directorate of Economics and Statistics. Certificates can be fetched through **DigiLocker**. On January 1, 2014, Rajasthan Government had made birth and death registration online.

- **E-Services by Jaipur Municipal Corporation**

JMC is providing following online citizens services:
- Application Forms
- Birth & Death
- Lease
- e-Auction
- Dairy Booth Rent
- Register Your Complaint
- Dog Registration
- Urban Development Tax

- ▪ Urban Development Tax Self Assessment
- ▪ Trade License
- ▪ Apply Advertisement
- ▪ Projects

(Source: jaipurmc.org.com)

- • **Digitalization and Toll Collection**

Use of digitalization in collection of toll tax on national highways has a commendable impact on revenue generation for the Government.   The recent analysis by **Dainik Bhaskar** (15 April, 2023) newspaper surfaces that at national highways through Fastag system the toll collection has increased 58% and the average waiting time for a vehicle has also been reduced from 8 minutes to 47 seconds. It stated, 'Rajasthan state has country's maximum number of toll booths i.e. 104 and it stands second after Uttar   Pradesh (3,949 cr.) in toll collection which is 3,491crores.

Objectives behind Digitalization Initiatives by Rajasthan Government

- • To revolutionized the service delivery system by the government.
- • To give impetus to socio-economic progress through technological advancement.
- • IT enabled automated services help in common man to derive the benefits of various government schemes and programmes in a transparent manner.
- • To create opportunities for youth for startups.
- • To enhance transparency and accountability of the government.
- • To increase entrepreneurship of the government.
- • To achieve good governance through e-governance.

Digitalization and Government's Fight against COVID- 19

Rajasthan have fought against COVID-1 9 with aplomb and a positive proactive approach. Following are the steps taken by the IT department to arm the Government of Rajasthan in fight against COVID l9:

- • Department setup 33 *District War rooms* with technical wings.
- • '*HIT war room"*, a focal point of information flow was setup as an Information Hub and which worked 24x7 in three shifts of 8hours.
- • IT Infrastructure such *as RajNet*, *RajSWAN*, *video conferencing* set up across the government offices from Gram Panchayat to State level.
- • The door step service delivery network of *e-Mitra kiosks* (delivered relief effectively.
- • A battery of the trained HIT soldiers" i.e. System Analysts, Analyst-cum-Programmers, Programmers, Assistant Programmers and Informatics Assistants worked tirelessly to ebb the negative impacts of the COVID- 19.
- • *Rajasthan Sampark (181 CM Helpline)* acted as last stop grievances.
- • *COVID-1 9 STATISTICS* Application was developed for various statistics related to COVID l9 pandemic.
- • GIS-based *mobile app* 'RajCovidInfo' and *web applications* 'Covid-19 GIS' & 'CQAS' played a vital role in Tracking, Tracing, Isolation and Containment of the Covid-19 pandemic in the State.

Thus, in this way the government efficiently dealt with pandemic COVID-19 through digitalization measures and tried to provide quick relief to the sufferers right from their identification to treatment and also preventing the spread of the disease.

Progress of Digitalization Efforts of the Government

The chapter includes the analysis of the progress of the digitalization by the Rajasthan government in the terms of their implementation, benefits and objectives met. The source of data is the information derived from Annual Progress Report (2022-23) of DOITC, Rajasthan government. Following table shows the progress of the initiatives in different spheres of governance:

Table 1:   Progress of Digitalization Initiatives by Rajasthan Government

Digitalization Initiatives in Rajasthan	Progress being Made
Public Interface for Service Delivery	
Jan Aadhaar Yojana	3 crores financial inclusion bank accounts. Benefits under 114welfare schemes to7.13 crore beneficiaries. 44000 crores DBT transactions till date.
Jansoochna Portal	14,987 residents verified their eligibilities through Scheme Eligibility Module using the JanAadhar database. 115 departments are linked to this portal. 47.14 + Lac seeke information through this mobile App.
Jansoochna Portal	14,987 residents verified their eligibilities through Scheme Eligibility Module using the JanAadhar database. 115 departments are linked to this portal. 47.14 + Lac seeke information through this mobile App.
Rajasthan Sampark Portal	Creation of CM Helpline -181 A remarkable figure of 98.52% grievances disposal has been recorded till 7th Dec 2021. 83.39 lacs of grievances have been disposed of out of total 87.69 lacs registered.
E-Mitra	In all 33 districts, more than 85000 kiosks enables over 70-80 lakhs transactions every month cost-effectively. At present,over 500 G2C and B2C services are being provided across rural & urban areas. As per 2022 budget, 112 B2C services also started by e-Mitra.
E-Mitra Plus	14891 e-Mitra Plus machines have been set up in the State, 9891 machines in rural and 5000 machines in urban areas. It has integrated more than 70 services.
Rajkisan Saathi	2.8 Lac+ farmers have been benefitted.
Infrastructure	
State Data Center	Tier-4, Data Center with 600 racks in Jaipur.
Video Wall	LED video walls on the prominent places of all 33 District HQs and the 295 Block Headquarters A total 339 Video Walls, in the state and maximum 22 in Jaipur district.
Rajnet	18500 IP Phones have been installed up to Gram Panchayats. In 2022-23, 3382.099 km OFC was laid for high speed internet connectivity and in 5 forest reserves 230 km OFC laid.
RajSWAN	High bandwidth and throughput connectivity to > 4800 Govt. buildings, > 5200 Govt. offices With Captive Optical Fiber Cable (OFC), Point to Point (P2P) and Multi-Protocol Label Switching (MPLS) etc.
RAJVC	> 570 Video Conference Studio Rooms in various Government departments. > 5000 Video conferencing sessions annually. Software-based video conferencing solution to connect to the residents. 18000+ ip telephone were established to connect rural-urban departments.
RajWiFi	Free wi-fi facility for residents at all 9000+ gram panchayats and urban areas, including government offices, educational institutions, and municipal wards. State has total 10641 WiFi Hotspots and 1.10 Lac consumers.
Wildlife Surveillance and Anti-Poaching System (WS&APS)	A hybrid model for protected areas of forest in the state which includes With high end thermal/optical cameras, point to point wireless network & communication equipment, solar power system, drones, etc Aiert Alarms: > 9Lacs AI Detection: 2,27,223 Incidence Information: 14000.

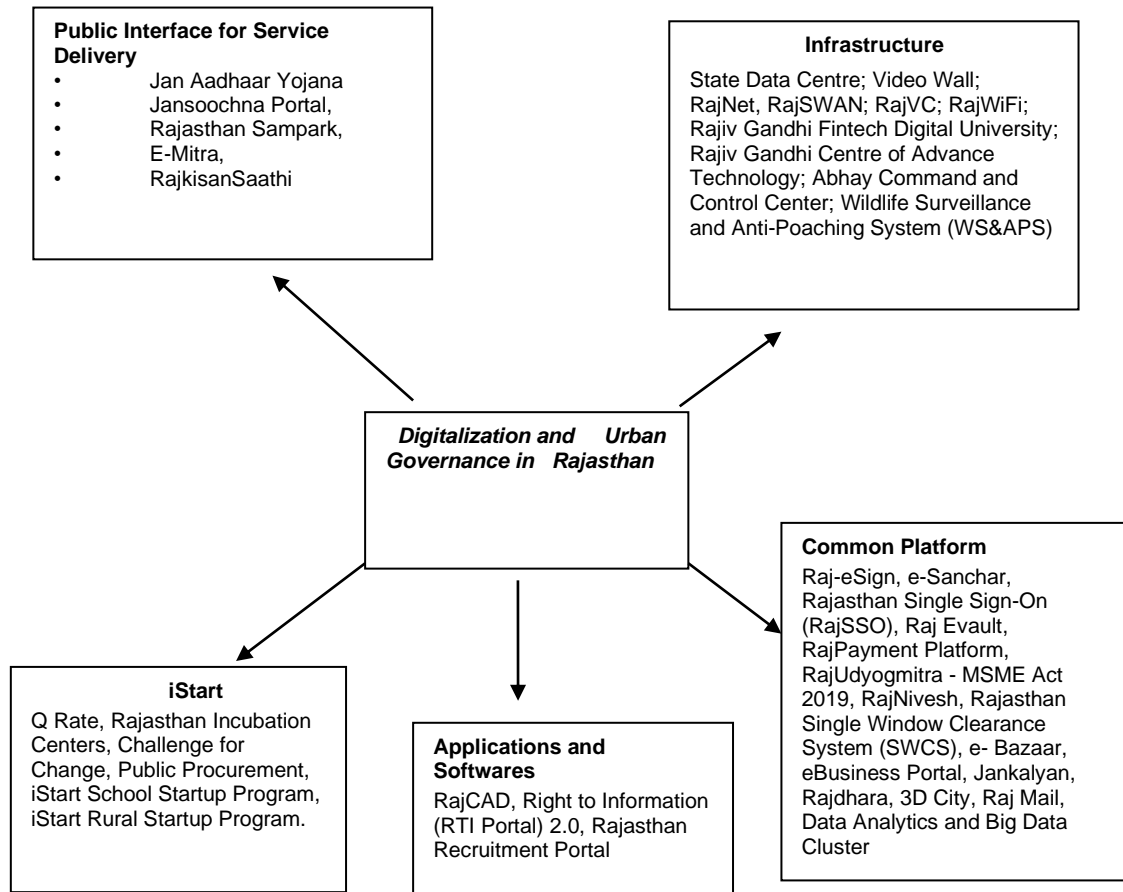|	
Rajiv Gandhi FinTech Digital University	In process of being established at Jodhpur with Rs. 400 crores budget. With technology equipped with Wealthtech/Broking,SaaS, InsurTech, Alternate Lending, Payment etc. Will create manpower in BFSI domain.
Rajiv Gandhi Centre of Advance Technology	Being established at Soochna Kendra, Jaipur. Courses will be available on advanced and emerging technologies like artificial intelligence/machine learning, robotics, augmented reality, virtual reality, big data analytics, quantum computing, etc.
Abhay - Command and Control Center	CCTV based integrated security solutions in all 33 Districts and 7 Divisional HQs. Surveillance through 6588 live cameras and 772 offline cameras. Dial 100 control system is working. Facilitating Video Surveillance, Emergency Response Support System, Forensic Research, ITMS (Intelligent Traffic Management System), Vehicle Tracking, Geographical Information.
Common Platform	
RAJ-eSign	RISL, a Govt. company, operates as Certifying Authority (CA) to issue Digital Signature Certificates. Provides facilities to eSign, SSL Certificates and Time Stamping services. One crore registration in 2022 and 30000 registrations per day were done.
e-Sanchar 3.0	A centralized communication platform for all e-Governance applications. It provides API interfaces for PUSH SMS, PULL SMS, Outbound voice calls, Outbound IVRS system.
Rajasthan Single Sign-On (RAJSSO)	All registered users enjoy- RajMAil, eSign facility, eVault (Digital Locker) facility. 242 G2G applications are being accessed by 9 Lakh+ state/central government employees. 161 G2C/ G2B/ G2E applications are being accessed by 2.29 Crore entities,
Raj E-Vault	It is currently providing services to 21 departments of Rajasthan to store and maintain departmental documents/file and certificates/licenses issued to citizens.
Rajpayment Platform (RPP)	Facilitating more than 55 Government Departments/PSUs in payment collection and disbursement services. 400-500 crore collection per month in last 5 years.
Raj Udyog Mitra - MSME Act 2019	A platform developed for the Industries department and Bureau of Investment Promotion (BIP) to promote MSMEs. It provides an Acknowledgement Letter on a real-time basis based on the Declaration of Intent submitted by the applicants. Total applications received are 15,832.
Raj Nivesh	It provides 134 different services of 15 departments under one roof.
Rajasthan Single Window Clearance System (SWCS)	A single point of contact for proposed investors/ commercial establishments (upto Rs 10 Crores). It provides 135 different services of 16 departments under one roof. Till now, 2,21,818 approvals/ clearances/ NOCs/ Licenses have been issued.
e-Bazaar	It provides access to Global Market for marketing and selling products of State's handicrafts, industries, support artisans, weaver, Self-Help Groups, government organizations and State Startups. Till now, 650+ products are listed and 65000+orders have been processed. > 150 startups were registered on e-bazaar plateform.
E-Business Portal	It provides seamless communications between 160 vendors, 436 departments, and 814 offices for doing business.
Jankalyan	It provide easy access to critical information of all Government Departments/PSUs.

Rajdharaa	Indigenous GIS-based repository of State assets. It includes mobile app like 'RajCovidlnfo', Covid-19 GIS & CQAS (web applications), 'Rajasthan Tourism Official App', Industrial Landbank, WorkRow Management System, etc.
3D City	3-Dimensional representation of the Jaipur city in a 30 geospatial environment with capabilities to create large scale infrastructure and urban planning.
RajMail	It removes the language divide by offering linguistic email services; access to a free email account; creation of email address in Hindi;etc. So far, 50 Lakh mailboxes have been created.
Data Analytics and Big Data Cluster	A common data and analytics platform for all departments.
Office Automation	
RajKaj	A paperless online modules implemented are File, Dak, Leave, APAR, IPR, NOC, Office & Employee Management, Accommodation, Store & Training. Under this, 73 departments are Admin and 394 organizations are covered.
Raj ERP	It is a standard ERP suite of Government of Rajasthan for implementation in different PSUs GoR. Currently implemented in RSMML, JMRC, AU-K, RISL and 5 Discoms (JVVNL, AWNL, JdWNL, RVPNL, RVUNL).
Applications and Softwares	
RajCAD	The center is expertise in the following domains: BI & Data Analytics; Web Application Development; Mobile Application Development; GIS & Remote Sensing; Emerging Technologies; Business Analysis; and Networking and Communication. Till now, it has prepared 7 web portal projects and under data analytics it has prepared database of 52 modules of 19 projects.
Right to Information (RTI Portal) 2.0	RTI version 2.0 has been developed, deployed and live. Creation of a helpdesk. 275 Departments and 58200 Government officers are registered as Assistant Public Information Officer (ASPIO),Public Information Officer (SPIO) and First Appeal Officers (FAQ) on RTI Portal. Consists features like e-Sign, Voice to text dictation, automatic alert (through mail and SMS), detailed dashboard,application transfer to internal sections through RTI application
Rajasthan Recruitment Portal	This application portal enables all aspirants to apply for multiple posts sitting in their homes or through eMitra Centres (Single Window access to all Government Services) across the State of Rajasthan. A total of 131 recruitments, by 33 govt. departments/ recruitment boards, and 2,10,36,486 applications received. In 2022-23, total recruitment 21 and forms received 38,26, 634.
iSTART	A one stop solution for the startups, incubators, and VCs for doing business. Assist in connecting with relevant stake holders, mentors, investors, accelerators and incubators. In 2022-23, 507 startups registered on iStart portal and out of them 487 were accepted.
Q RATE	It is a unique program, a combination of 3 key components- Startup Scorecard, Skill Building & Fund raising Assistance. It's a startup rating system. QRate of 40 startups were done in 2022.
Rajasthan Incubation Centers	The centers provide space (seating for 700 startup teams and incubation space of 1,50,000 sq ft.) and resources (high-speed internet, data center, furniture, work station, recreational area) to startup team.

Challenge for Change	An initiative by the state government to invite youth, working professionals and start up entrepreneurs to come forward with their own innovative ideas, or take up project offered bythe government. Launched the 'Rajiv Gandhi Innovation Awards' under RAJIV@75to encourage and to raise unicorn startups. Topper gets INR 2 crores, runner-up will be awarded INR 1 crore and three winners will be awarded INR 50 lakhs each.
Public Procurment	State govt. departments will be giving work orders up of selected works to Rs. 15 lakh without tendering process.
iSTART School Startup Program	To imbibe entrepreneurial mindset in the school students. Government envisages to establish incubation centers in the nine academic zones in the State to mentor the students of classes 8th to 12th across the schools and provide training to teachers.
Other Initiatives	
Online Land Conversion (90A)	Online work of land conversion right from applying to issuing of order.
Door Step Home Delivery Services	A pilot poject started at Jodhpur and Jaipur for door step delivery of certificates like birth, marriage income, domicile, etc. to citizens.
Document Verification and Authentication Engine	50 crores authentication were done till 2022.
iStartNest	Incubation centres at Bikaner, kota, Churu, Jodhpur, and Pali opened at Jaipur and Jodhpur Digifest-2022.
Virtual Incubator	In 2021, CM inaugurated virtual Incubation.
Financial Assistance	As per Startup policy, 2015 selected startups will get financial support of Rs 10000/month, Seed Fund (max 2 lacs), Techno Fund (max 25 Lac). In 2022-23, 10 crores were given to selected 157 startups.
Citizen Contact Centre (CCC)	52000 calls per day received by CCC.
RajMasters	32 departments are using this.
Robotics	At present, Government has 5 Nao Robots and 1 pepper Robot. These can understand 19 foreign languages.
Raj Sewa Dwaar	More than 40 departments are attached to it. More than 1150 services are integrated.
Rajasthan Institute of Advanced Learning (RAIL)	In the budget of 2021-22, declaration to establish RAIL institute by the Govt.
Rajiv Gandhi Centre for Advance Technology (R-CAT)	53 R-CAT inaugurated in 2022
Integrated Health Management System (IHMS)	Started after 2017, 1.5 Lac patients are registered every day. 51.13 Lac electronic health records generated till now.

Conclusion

The study explores an in-depth systematic content analysis of digitalization initiatives by Rajasthan government for urban development, and also their implementation, outcome and beneficiaries. The state is achieving the motto of effective, efficient and welfare state through digitalization and e-governance. Not only this, it has enhanced accountability and transparency in the governance. It has framed digitalization canopy which encompasses various aspects of governance **like *Public Interface for Service Delivery*** (Jan Aadhaar Yojana, Jansoochna Portal, Rajasthan Sampark, E-Mitra, RajkisanSaathi);   ***Infrastructure*** (State Data Centre, Video Wall, RajNet, RajSWAN, RajVC, RajWiFi, Rajiv Gandhi Fintech Digital University, Rajiv Gandhi Centre of Advance Technology, Abhay Command and Control Center, Wildlife Surveillance and Anti-Poaching System (WS&APS)); ***Common Platform*** (Raj-eSign, e-Sanchar, Rajasthan Single Sign-On (RajSSO), Raj Evault, RajPayment Platform, RajUdyogmitra - MSME Act 2019, RajNivesh, Rajasthan Single Window Clearance System (SWCS), e- Bazaar, eBusiness Portal, Jankalyan, Rajdhara, 3D City, Raj Mail, Data Analytics and Big Data Cluster); ***Office Automation*** (RajKaj - An integrated e-office, Raj ERP); ***Applications and Softwares*** (RajCAD, Right to Information (RTI Portal) 2.0, Rajasthan Recruitment Portal); ***iStart*** (Q Rate, Rajasthan Incubation Centers, Challenge for Change, Public Procurement, iStart School Startup Program, iStart Rural Startup Program). Following model shows the digitalization initiatives by Rajasthan government for urban development:

Model 1.8.1: Digitalization Initiatives by Rajasthan Government for Urban Development

Public Interface for Service Delivery
- Jan Aadhaar Yojana
- Jansoochna Portal,
- Rajasthan Sampark,
- E-Mitra,
- RajkisanSaathi

Infrastructure

State Data Centre; Video Wall; RajNet, RajSWAN; RajVC; RajWiFi; Rajiv Gandhi Fintech Digital University; Rajiv Gandhi Centre of Advance Technology; Abhay Command and Control Center; Wildlife Surveillance and Anti-Poaching System (WS&APS)

Digitalization and Urban Governance in Rajasthan

Common Platform

Raj-eSign, e-Sanchar, Rajasthan Single Sign-On (RajSSO), Raj Evault, RajPayment Platform, RajUdyogmitra - MSME Act 2019, RajNivesh, Rajasthan Single Window Clearance System (SWCS), e- Bazaar, eBusiness Portal, Jankalyan, Rajdhara, 3D City, Raj Mail, Data Analytics and Big Data Cluster

iStart

Q Rate, Rajasthan Incubation Centers, Challenge for Change, Public Procurement, iStart School Startup Program, iStart Rural Startup Program.

Applications and Softwares

RajCAD, Right to Information (RTI Portal) 2.0, Rajasthan Recruitment Portal

Model 4.1: Digitalization Initiatives by Rajasthan Government for Urban Development

The audience, stakeholders and beneficiaries of these IT initiatives are all the government departments, agencies, LSG bodies, PSUs, cooperative and other banks, registered bidders, local service providers, commercial establishments, e-Mitra kiosks, IT projects, lawyers, artisan, weavers and citizens of Rajasthan as a whole.

So, it is a massive step in the path of governance to touch its every aspect through digitalization and supplementing the governance's objective of efficiency, effectiveness and entrepreneurship (3Es). This is benefitting the citizens by saving their energies and time in following the government procedures, deriving the benefits of government scheme to optimum level, helping the government in efficient execution of the task of good governance upto grassroot level, generating revenue, preventing red tapism, enhancing tranceperancy and accountability of the government, creating opportunities for startups, to fasten the socio-economic progress of the state through technology, etc.

Through the schemes like Bhamashah Swasthya Bima Yojna and Raj e-Gyan, the government has digitally revolutionized key sectors like healthcare and education by taking them to the most remote corners of the state. It has been successful in creating an integrated e-governance infrastructure, ensuring the optimum ease to residents to connect to the government and also getting benefits at their doorsteps. Through adopting technology, the government has led to ease delivery and efficient execution of citizen- centric services. Through Rajasthan DigiKit maximum participation of people towards e-governance is ensured. With the help of digitalization the government has been successful in combating global pandemic like COVID-19 and providing relief measures to the citizens.

Thus, Rajasthan government has been striving for improving the life of common man, by enhancing their happiness index and improving growth catalyst through digital revolution which aims at 'Minimum Government and Maximum Governance'.

References

1.   Dainik Bhaskar, 15th April, 2023.

2.   *https://doitc.rajasthan.gov.in/projects.aspx*

3.   https://www.expresscomputer.in/internet/how-rajasthan-transformed-itself-into-a-digital-state/28031/

4.   *jaipurmc.org.com*

5.   UNDP report (2020): 'north macedonia/ 'digitalization as a tool for good governance and corruption prevention'.

6.   Annual progress report, 2022-23, doit&c, rajasthan government.

7.   Ang, L. and Seng, K.P.(2016). 'Big sensor data applications in urban environments. *Big Data Research. 2016, 4*, 1–12.

8.   Bhuiyan, S.H. (2011). 'Modernizing Bangladesh public administration through e-governance: benefits and challenges', *Government Information Quarterly*, Vol. 28, No. 1, pp.54–65.

9.   Bolgherini, S. (2007). 'The technology trap and the role of political and cultural variables: a critical analysis of the e-government policies', *Review of Policy Research*, Vol. 24, No. 3, pp.259–275.

10.   Chatterji, T. (2017). 'Digital urbanism in a transitional economy – a review of India's municipal e-governance policy'. *Journal of Asian Public Policy*, pp.1–16.

11.   Heeks, R. (2004*). 'eGovernment as a Carrier of Context*', University of Manchester, Institute for Development Policy and Management, Manchester M139GH, UK, p.15.

12.   Ishida, H. (2022). 'The effect of ICT development on economic growth and energy consumption in Japan'. Telematics Inf. 2015, 32, 79–88. [CrossRef] *Sustainability 2022*, 14, 14158 23 of 23

13.   Johansson, L.; Epitropou, V.; Karatzas, K.; Karppinen, A.; Wanner, L.; Vrochidis, S.; Bassoukos, A.; Kukkonen, J.; Kompatsiaris, I.(2015). 'Fusion of meteorological and air quality data extracted from the web for personalized environmental information services'. *Environ. Model. Software, 2015*, 64, 143–155.

14.   Kumar,   D.   (2017).   '*E-Governance: Good   Governance   in   India*', https://ssrn.com/abstract=2908780 (Accessed 15 June, 2017).

15.   Kumar, S. (2013). '*Design of Framework to Improve Effectiveness of e Governance in the state of Punjab*', http://shodhganga.inflibnet.ac.in/handle/10603/13544 (Accessed 15 June, 2017).

16.   Kwon, O.; Lee, N.; Shin, B.(2014). 'Data quality management, data usage experience and acquisition intention of big data analytics'. *Int. J. Inf. Manag. 2014*, 3, 387–394. [CrossRef]

17.   Shin, D.H.; Choi, M.J.(2015). 'Ecological views of big data: Perspectives and issues'. *Telematics Inf. 2015*, 32, 311–320. [CrossRef]

18.   Xie, C.Y.; Feng, J.C.; Zhang, K.(2017). 'The impact of Internet technology progress on regional environmental quality and its spatial effects'*. Sci. Technol. Prog. Policy 2017*, 34, 35–42.

❖◆❖