



A Study of Citizen-Centered E-Governance in Andhra Pradesh: A Difficult Transformation

By

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Abstract:

We are now living in the information era, in which information serves as a gateway to tomorrow, and the influence of communication and information technology on society is growing. In recent years, ICT advances and the incredible growth of electronic commerce (e-commerce) have affected the public sector. The Andhra Pradesh state has recently taken further innovative measures by adopting "CORE Dashboard, e-Cabinet, Mee Kosam, Mee Bhoomi, e-PoS, and e-Pensions". According to real-time data provided by the "e-Taal site of Government of India," AP presently ranks #1 among all Indian states regarding the delivery of e-Services. At this point in the development of e-Government in AP, it is believed that the state should lead the way by taking a holistic approach rather than a series of separate initiatives. India's deep path will be determined by the digital programme, which aims to transform the nation into a technologically enabled society and knowledge-based engine. The present paper with 68 variables and 107 observations gathered using a questionnaire and analyzed using SPSS v.25. Freshmen students use the online admission method to universities in Andhra Pradesh for the academic year 2021/2022. The online admission system is utilized for all admission processes due to the Covid-19 outbreak in Andhra Pradesh. This paper looks at how citizens are becoming more aware of e-government solutions in order to encourage them to incorporate the services available, as well as why e-government is currently attempting to improve its services so that attitude can be recognised and data and services can be produced in a more individualised manner. Andhra Pradesh's e-government is progressing, with numerous strengths and possibilities such as solid economic policies, political will, and a strong educational system. When compared to EU nations, however, the adaptations were not at the necessary level. It still confronts several dangers and difficulties, including culture, economics, security, and privacy. Overall, Andhra Pradesh is committed to improve digital public service distribution and has provided adequate resources to do so. Competent policies, defined objectives, and comprehensive vision with citizen-centric policies and services are all necessary for e-government to succeed.

Keywords: Adoption, Awareness, e-Government, Perceptions, Service delivery.

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1. Introduction:

We are now living in the information era, in which information serves as a gateway to tomorrow, and the influence of communication and information technology on society is growing. In recent years, the public sector has been affected by ICT advances and the incredible growth of electronic commerce (e-commerce) ^[1]. Electronic government (e-government) has become a buzzword for various activities and efforts to modernize and reinvent the public sector. On the other hand, the twenty-first century is the epoch of the Technological Transformation, or Information Society ^[2]. In the developing world, E-Government technologies have exploded. Many nations have embraced e-Government to improve government services better, quicker, fairer, open, more productive, more responsible, and more affordable to the people who use them: citizens and companies ^[3]. However, although the transition to e-government has many benefits, it also poses new difficulties. The influence of political, economic, socio-cultural, and fundamental infrastructural and human capital has created new barriers and challenges ^[4]. Owing to their low levels of development, it was formerly impossible to study e-government in developing nations like India. Recent advancements in e-government in these nations, on the other hand, have made it feasible to conduct research and evaluate their experiences and practices. Even though there are numerous works on e-Government in Andhra Pradesh, the study is scarce on its practical aspects. Furthermore, the success and acceptability of e-government projects are contingent on citizens' willingness to use the services offered. As a result, e-Government has been implemented to provide governmental services across the nation or the globe better, quicker, cheaper, more convenient, transparent, efficient, accountable, and available to its beneficiaries, citizens, and companies.

2. "E-governance in Andhra Pradesh":

Through its numerous "e-Governance projects and programs, the Government of Andhra Pradesh has consistently been at the frontline of utilizing information technology to deliver services to citizens and companies in an efficient and optimum manner" ^[5]. The design and implementation of such services are centered on forming the core of a peaceful community ^[6]. The state has recently taken further innovative measures by adopting initiatives including "CORE Dashboard, e-Cabinet, Mee Kosam, Mee Bhoomi, e-PoS, and e-Pensions". According to real-time data provided by the "e-Taal site of Government of India," AP presently ranks #1



among all Indian states regarding the delivery of e-Services. At this point in the development of e-Government in AP, it is believed that the state should lead the way by taking a holistic approach rather than a series of separate initiatives. “The digital program seeks to convert India into a digitally equipped society and knowledge-based economy, determining the country’s long-term course. Similarly, states have their own e-governance efforts, and there is no shortage of programs and projects to achieve this goal. The issue that arises is, with so much going on, what should tie them together in a holistic manner, such that there is convergence and coherence via its activities of CORE Dashboard”^[7].

In the “National e-Government Service Delivery Assessment (NeSDA) 2019^[8],” which was just published by the Union government, the state scored badly and lagged behind many of the States. According to the framework, the first-ever report rating the States, Union Territories, northeast States, and hill States individually was released after “the Department of Administrative Reforms and Public Grievances” assessed ‘portals’ and ‘service portals’ according to the framework established in 2019, in a year-long procedure. The goal of the evaluation was to improve overall e-Government progress by assessing the effectiveness of service delivery mechanisms from the viewpoint of citizens. In the portals area, the state received a score of 0.48 on a scale of one, placing it 13th out of 17 states evaluated. According to the study, despite providing over 51,000 e-services, AP has the highest e-service delivery rate in the nation. AP Received 0.36 inaccessibility, 0.56 in content availability, 0.54 in ease of use, and 0.44 in security and privacy. Six northeastern states were even behind the state. The evaluation was based on data from various States and a public feedback poll conducted three times in May of last year, with scores computed using data as of May 31, 2019. The final report was recently filed^[9].

3. Data collection and Analysis:

With 68 variables and 107 observations, data was gathered using a questionnaire and analyzed using SPSS v.25. Freshmen students use the online admission method to universities in Andhra Pradesh for the academic year 2021/2022. The online admission system is utilized for all admission processes due to the Covid-19 outbreak in Andhra Pradesh. The questionnaire was chosen to gather data for this study because it is an efficient way to get information from participants and a suitable and effective technique to examine people’s attitudes and views on



specific topics. In this study, 107 people answered a questionnaire on citizens’ awareness, perceptions, attitudes, acceptance, adoption, and security experiences with e-Government services. The questionnaire is available in Telugu and English.

4. Results and findings:

Table-1: Users Awareness, Perceptions and attitudes (UAPA) in Percentages%

"UAPA-1	How well do you know the term "e-government"?	Very familiar	13.8
		Fairly familiar	28.7
		Just somewhat familiar	27.6
		Not at all familiar	17.2
		Not sure	12.6
UAPA-2	Overall, how do you think e-government is changing the way government works?	Very positive	19.5
		Somewhat positive	23.0
		Neutral	21.8
		Somewhat negative	10.3
		Very negative	9.2
		Not sure	16.1
UAPA-3	Three to five years from now, what impact do you believe e-government will have on how the government operates?	Very positive	32.2
		Somewhat positive	27.6
		Neutral	17.2
		Somewhat negative	3.4
		Very negative	6.9
		Not sure	12.6
UAPA-4	How important do you think it is for the government to spend taxpayer money providing information and services accessible via the internet?	Very High Priority	20.7
		High priority	17.2
		Medium priority	26.4
		Low priority	4.6
		Very low priority	13.8
		Not sure	17.2
		Strongly favor	25.6



UAPA-5	Would you support or oppose e-government as the main method of getting government information and services?	Somewhat favor	37.2
		Somewhat oppose	9.3
		Strongly oppose	8.1
		Not sure	19.8
		Strongly favor	0".

Source: Authors own

The frequency percentages are represented by the following concept, on which the questionnaire is based: Table-1 indicates that the majority of participants are young; nevertheless, they are just frequent internet and computer users. The following study in table -1 indicates that users are very aware of e-government, even if the only e-Gov service they are using is online university admissions. Around 40% of users believe that e-government services positively impact citizens and that this effect will improve in 5 years. Thankfully, 62.8 percent said they support e-government as the main method of getting information and services from the government; but, 37.9 percent said the government should make information and services accessible via the internet as a top priority.

The following is the proportion of valid frequencies on a five-point scale, with the specified talking heads: “1- Strongly disagrees, 2- Disagrees, 3- Neither agree nor disagree 4- Agree, 5- Strongly agree” with the survey on the extent to which e-government is providing services to people and if the fundamental infrastructure in Andhra Pradesh is sufficient to build e-government.

Table-2 shows how much respondents agree and disagree with e-Government services in Andhra Pradesh. Sixty-nine percent believe that e-Government online services may be successful in delivering government information to the public. Andhra Pradesh government has embraced e-government apps to facilitate communication and connection among government organizations, agencies, and people. As a result, 60.7 percent of respondents believed that they could interact with an e-government service provision online to get the information they needed.



Table-2: e-government Development in Andhrapradesh (Agree & Disagree in Percentage)

E-government Development in Andhra Pradesh		Strongly Disagree	Disagree	Neither Disagree nor Agree	Agree	Strongly Disagree
ED-1	Online e-Government services may help deliver government information to the public.	9.5	9.5	11.9	46.4	22.6
ED-2	People will also interact with e-government service providers online to get the information they need.	14.3	4.8	20.2	41.7	19.0
ED-3	In your location, Internet services are readily accessible.	10.8	14.5	12.0	26.5	36.1
ED-4	The Internet speed and service quality are sufficient for accessing e-government services.	20.2	11.9	14.3	23.8	29.8
ED-5	The majority of individuals have internet and computer access.	11.9	7.1	6.0	22.6	52.4

Source: Authors own

Table-3 examines the obstacles and difficulties to adopting e-Government services in Andhra Pradesh, with 63 percent agreeing. Lack of understanding about “e-government services” and the most significant barrier to using e-government in Andhra Pradesh is a “lack of knowledge and capacity to utilize computers and technology effectively”; furthermore, 57.8% believe that there is an insufficient grasp of the benefits of E-Government. “Lack of users’ trust and confidence” in using “e-government services” is cited by 48.1 percent, while “lack of privacy and security of information on government websites” is cited by 53.1 percent. Fewer people cite the “lack of policy and legislation for e-usage” in Andhra Pradesh as e-government obstacles. Even though 54.9 percent agree on the accessibility and dependability of internet connections, 41% agree on inadequate internet access as a hindrance.

Table-3: “Barriers and Challenges to E-government services adoption” (BCEA) (Percentage)



Barriers and Challenges to E-government services adoption (BCEA)		Strongly Disagree	Disagree	Neither Disagree nor Agree	Agree	Strongly Disagree
BCEA-1	Inadequate awareness of the benefits of e-government.	15.7	6.0	20.5	31.3	26.5
BCEA-2	Lack of understanding and aptitude to effectively utilize “computers and technology”.	9.8	7.3	18.3	43.9	20.7
BCEA-3	“Lack of knowledge of e-government services”.	10.0	5.0	21.2	43.8	20.0
BCEA-4	Information security and privacy are lacking on government websites.	21.0	8.6	17.3	32.1	21.0
BCEA-5	Users’ trust and confidence in using e-government services are low.	11.4	17.7	22.8	25.3	22.8
BCEA-6	In Andhra Pradesh, there is a lack of e-usage policy and regulation.	18.5	12.3	27.2	22.2	19.8
BCEA-7	The internet connection’s availability and reliability.	13.4	13.4	18.3	32.9	22.0
BCEA-8	There is a lack of internet access.	21.7	10.8	26.5	18.1	22.9

Source: Authors own

Table-4 provides an overview of Sudanese cultures and privacy concerning the usage of existing e-government services. Privacy and personal information: 44.40 percent of people are worried about using e-government services. 36.40 percent believe that the dangers of utilizing e-government services exceed the advantages. When it comes to utilizing e-government services, 55.20 percent believe I should be careful. The government agency may utilize 45.30 percent of personal information unexpectedly. 58.20 percent of the time, someone may steal my personal information while I’m submitting it to a government website. Hackers may be able to infiltrate government websites and grab my personal information kept on the internet Trust. 57.70 percent, 52.00 percent think that utilizing e-government services may have adverse effects. Interacting with an e-government service is 40.30 percent unsafe. When an e-government website promises



me of its security, I believe it 59.80% of the time. When it comes to ensuring that financial information is safeguarded from being inadvertently changed or deleted while being sent over the internet, 62.00 percent trust the “e-Government website”. When there is an efficient method to redress any breach of my “personal information”, 58.80% of people trust e-government websites. When the technologies that enable the system are always reliable, 61.30 percent will utilize the e-Government website. When the technologies that will allow the system are protected all of the time, 67.60 percent of people would utilize an e-government website. When the legal and technical frameworks are sufficient to safeguard me from issues on the internet, 70.00 percent will utilize an e-Government website. When an e-Government website provides a valuable service for me, I have 60.00 percent confidence in it.

Table-4: Privacy and Personal Information (In percentages)

Cultural and Privacy (CP)		Strongly Disagree	Disagree	Neither Disagree nor Agree	Agree	Strongly Disagree
CP-1	I believe that using e-government services is risky.	20.3	16.5	19.0	20.3	24.1
CP-2	I believe that the dangers of utilizing e-government services exceed the advantages.	16.9	20.8	26.0	22.1	14.3
CP-3	When utilizing e-government services, I feel like I need to be careful.	16.7	9.0	19.2	30.8	24.4
CP-4	I think that utilizing e-government services may have adverse effects.	12.0	16.0	20.0	32.0	20.0
CP-5	Interacting with an e-government service is dangerous.	13.0	20.8	26.0	23.4	16.9
CP-6	The government agency may utilize my personal information unexpectedly.	10.7	20.0	24.0	24.0	21.3
CP-7	While I'm submitting information to a government website, someone may steal my personal information.	13.9	10.1	17.7	36.7	21.5
CP-8	Hackers may be able to get into government websites and take my personal information.	12.8	9.0	20.5	32.1	25.6



CP-9	When an e-Government website guarantees me its security, I believe it.	7.8	10.4	22.1	31.2	28.6
CP-10	I trust e-Government websites since they guarantee that data is secured from inadvertently changing or being deleted during internet transmission when it comes to transactional information.	13.9	10.1	13.9	36.7	25.3
CP-11	When there is an efficient process to remedy any breach of my personal information, I trust e-Government websites.	10.0	13.8	17.5	28.8	30.0
CP-12	When the technologies that the system supports are always dependable, I will utilize an e-Government website.	11.2	8.8	18.8	37.5	23.8
CP-13	When the technologies that enable the system are always secure, I will utilize an e-Government website.	7.8	7.8	16.9	32.5	35.1
CP-14	When the legal and technical frameworks are sufficient to safeguard me from issues on the internet, I will utilize an e-Government website.	11.2	6.2	12.5	41.2	28.8
CP-15	When an e-Government website provides a valuable service to me, I believe it is trustworthy.	13.8	7.5	18.8	18.8	41.2

Source: Authors own

Recommendations:

There is a need to raise the literacy rate: Literacy is a critical component of economic growth. Many government initiatives aimed at improving literacy rates were launched. In reality, the government has established many elementary schools across the country. However, many schools are not operating effectively, and the children who attend these schools are still incapable of reading and writing. As a result, greater focus should be placed on improving these institutions. “Lack of adequate infrastructure and fundamental requirements in schools, such as no drinking water, no proper bathroom facility, instructors missing from school”, and so on, are mentioned as reasons why kids do not attend school.

ICT development; removing economic, language, and accessibility obstacles to ensure that everyone has equal access to the internet and its advantages. To enable the common man to



utilize ICT effectively, develop and execute “a national digitization strategy and a digital information literacy program”. This government initiative will also aid in closing the digital gap.

Technical Problems: The backbone of e-government is IT infrastructure. A major success element is an interoperability with current software and hardware platforms. It's doubtful that the existing resources will allow for a complete replacement of the present application. “Hardware should also be completely compatible with emerging technologies. Finally, since personal data is processed and kept, and financial transfers must be completed, certain legal aspects must be addressed, such as security and privacy”. To meet such demands, suitable technological modifications must be implemented. It may be more effective if it uses several models.

Privacy: Citizens' concerns about their personal privacy and the confidentiality of their personal data must be addressed technologically. When it comes to creating and managing websites, privacy and secrecy must be prioritized. The backbone of public support is an optimal Cyber policy and its rigorous implementation.

Cloud Computing: Cloud computing is becoming an essential part of the IT industry. Cloud computing is advantageous in all sectors where the technical infrastructure is inadequate. Cloud computing may also aid in the spread of the internet.

Redesigning Business Processes: Despite ICT is emphasised in e-governance, it is not the sole element in its success. Re-engineering is required for effective e-governance. The processes and procedures must be changed in order to achieve a substantial improvement in e-governance performance. The five elements of the company must be modified for this Strategy, Processes, Technology, Organization, and Culture.

More CSCs should be established: More CSCs should be selected for the benefit of the villages so that they have easy access to the services available. The closer someone is to the CSCs, the more likely they are to utilize it.

Political willpower: Because e-Government requires less contact with government employees, it will aid in the reduction of bribery. The vigorous protests of government officials must likewise be handled with caution and wisdom. This job may need the politicians' and leaders' honesty and tremendous willpower. Politicians reject the idea of electronic voting.



Conclusion:

People are the primary objective of every government service provider; yet, achieving this goal is not simple and requires a comprehensive awareness of citizens' trust needs and system requirements^[10]. This paper looks at how citizens are becoming more aware of e-government solutions in order to encourage them to incorporate the services available, as well as why e-government is currently attempting to improve its services so that attitude can be recognised and data and services can be produced in a more individualised manner. Andhra Pradesh's e-government is progressing, with numerous strengths and possibilities such as solid economic policies, political will, and a strong educational system. When compared to EU nations, however, the adaptations were not at the necessary level. It still confronts several dangers and difficulties, including culture, economics, security, and privacy. Overall, Andhra Pradesh is committed to improve digital public service distribution and has provided adequate resources to do so. Competent policies, defined objectives, and comprehensive vision with citizen-centric policies and services are all necessary for e-government to succeed.

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