Pp. 212-218

ICT DEVELOPMENT HISTORY AND ITS APPLICATION

Tripat Kaur

Research Scholar, Department Of Computer Science, Faculty Of Science, Tantia University, Sri Ganganagar (Rajasthan)

Dr. Aashish Arora

Research Supervisor, (Assistant Professor), Department Of Computer Science, Faculty Of Science, Tantia University, Sri Ganganagar (Rajasthan)

INTRODUCTION

Insufficient information and communication technology infrastructure is one of the key obstacles facing developing countries in their efforts to establish e-government. The government of a developing nation does not have the resources to build the information and communication technology infrastructure that is required for an e-government. This infrastructure is essential for an e-government. The adoption of e-government requires a variety of resources, some examples of which are digital technology, Internet network coverage, and communication tools. People living in countries with high levels of poverty often lack access to e-government services due to the restricted availability of network connection in these countries. When it comes to being able to make use of the services that are made available on e-government websites and applications, having access to an Internet network is an essential component.

LITERATURE REVIEW

In light of the current condition of the technological landscape, **Deka** (2014) performed research to study the numerous opportunities in the disciplines of information and communications technology (ICT) that may be accessible in the state of Assam. Specifically, she was interested in the state's potential to host such endeavors. In the rural areas of Maharashtra, Chaudhari et al. (2011) explored the function and relevance of electronic and digital government by utilizing information and communication technologies (ICTs) and wireless technologies for agricultural and rural development. This was done with the goal of gaining a deeper comprehension of the function that electronic and digital governance play in more remote places. This was done with the intention of acquiring a better understanding of the role that electronic and digital governance plays in the expansion of agricultural and rural regions, which was the primary motivation for doing so.

In the words of **Boras** (2004), "many governments in developed and developing nations are currently creating, implementing, and upgrading their plans to change government services using information and communication technologies (ICT)." This change to the manner in which services are supplied has the potential to be seen as a significant update to the channels of communication that currently exist between the government and the many groups that it represents. This mode of

Volume 23, Issue 2, August 2023

Pp. 212-218

interaction is also known by a variety of other names, such as e-Government, online government, digital government, and e-Governance, amongst others.

V.S. Benival and Kapil Sikka, (2013): This article discusses the opportunities and obstacles that lie ahead for India in the future. In addition, a discussion was held on what actions the government has taken. It may be deduced from this that India is still falling behind in terms of effectively utilising ICT in order to provide governmental services.

Electronic governance was described by *Rao* (2003) as the use of information and communication technology (ICTs) to coordinate, carry out, and monitor the activities, programs, and services that are carried out by the government. E-Governance is the practice of public governance via the use of electronic media in order to create an efficient, rapid, and transparent method of presenting information to the general public and other organizations, as well as executing government administration duties. The goal of e-Governance is to promote openness, transparency, and efficiency in the dissemination of information. The administration of public affairs by means of various forms of electronic media is one description of the concept known as "e-Governance.

Annamalai and Rao (2003) argued that information and communications technology (ICT) will increase the education sector, governance practices, economic growth, and other sectors in economies that are still emerging, such as India. India is a good example of a country whose economy is now undergoing e-development. An earlier study reveals that the implementation of digital technologies for managing supply chains has led to a considerable reduction in the transaction costs that are involved with the sale of agricultural products.

NandanShefali (2006) The national government, the governments of the individual states, and the governments of the individual cities and towns in India are all making substantial efforts to promote the use of information and communications technology (ICT), with the goal of providing the country's citizens with services that are rapid and effective.

MANAGEMENT OF ICT

The top management of the various governmental institutions has contributed to making the challenges of building an e-government even more complex. E-government is ineffectual in developing countries like Africa and Southeast Asia because departmental managers are not committed to the establishment of e-government inside the government. When it comes to the management of information and communications technology (ICT), social culture may be a hurdle in developing countries. This can hinder attempts to encourage the use of information and technology in the provision of services. As a consequence of the prevalence of cronyism and corruption in the organizational culture of developing countries, it is challenging for the government to implement management information and communication technologies throughout its many departments.

Volume 23, Issue 2, August 2023

Pp. 212-218

FLEXIBILITY OF CLOUD COMPUTING

The use of cloud computing into the e-government infrastructure results in increased adaptability throughout the system. As a result, different levels and departments of the government are able to make use of cloud-based e-government solutions. Cloud computing makes use of a number of distinct models, each of which enables information and communications technology (ICT) professionals to arrange it to meet the needs of certain businesses and organizations. A cloud hybrid computing model may be utilized by companies operating in the private sector. This type of model confers major advantages on an organization since it enables companies to achieve the same level of leverage enjoyed by public and private models.

REDUCED EXPENDITURES

The implementation of an electronic government in a country calls for a significant financial investment in the relevant infrastructure. It entails the acquisition of information and communications technology (ICT) hardware and software that is necessary for the effective delivery of services to companies and residents. In addition, a government will need to recruit information and communications technology (ICT) specialists in order to manage and maintain its system. The use of cloud technology will present a beneficial opportunity that will arise throughout the process of the construction of the electronic government system.

PUBLIC CLOUD MODEL FOR E-GOVERNMENT

E-government and the organizations that are attached to it have made more strides toward its deployment aim, which is to make the online services that are associated with e-government accessible to citizens in a way that is both useful and adaptive. The expectations that people have of their electronic government continue to grow, and one of the key and most critical challenges that an electronic government must address is the prevalence of internet use among its constituents. The introduction of electronic government services in less developed countries is more challenging and laden with obstacles than its counterpart in more industrialized ones. They are up against a variety of well-known hurdles and obstacles while attempting to carry out even the most elementary components of e-government. These problems show themselves in a variety of different ways, such as a lack of resources, exorbitant expenditures, a digital divide, inadequate IT infrastructure, and management. E-governments all over the world are giving serious attention to cloud computing as a method of increasing productivity, lowering costs, providing services that are more dependable and effective, and reducing the amount of time required to do activities.

Over the course of the last several years, the industry of information and communication technology (ICT) has been a witness to a very quick development that has beyond all expectations. Because of the proliferation of internet use, the entire planet has been transformed into a type of enormous online community. This development will, without a doubt, have an impact not only on a single part of our lives, but on each and every facet of our existence. E-government refers to the

Volume 23, Issue 2, August 2023

Pp. 212-218

process through which governments, along with all other facets of society, have reaped the benefits of leveraging information and communications technology (ICT) to show and supply their services to citizens. E-government has also been referred to as electronic government or e-government.

INTELLIGENCE SOCIETY E-GOVERNMENT

The Internet and globalization are both forces that are making society more intertwined and intricate. As a result, the level of uncertainty in today's society is at an all-time high, and it will likely remain at this level for the foreseeable future. At the same time, disruptive innovation is taking place as a result of the quick rate at which technical change is occurring. This may be attributed to the rise of the Internet of Things (IoT). As a consequence of this, it is of the utmost importance to be capable of forecasting social change in a timely and accurate manner, in addition to making appropriate preparations for it on the national level. As a direct result of this, active pursuit has been made of informatization innovation plans for governments based on ICT (information and communications technologies), with an evolution in both the goals and methodologies according to the requirements of society.

To be more precise, the use of an information and communications technology (ICT)-based administrative framework enabled the electronic government of South Korea to achieve great success as a nation focused on exporting. The United Nations Department of Economic and Social Affairs (UN DESA) conducts an evaluation of all 190 member nations of the United Nations every two years to determine which nation has the most sophisticated electronic government. Since 2010, Korea has retained its position as the nation with the most advanced e-government. Its information and communications technology development score, public data use index, and network readiness rating, in particular, all reflect a level that is higher than that of industrialized countries like the United States. It is well knowledge that the implementation of an electronic government system in South Korea has greatly raised the amount of democratic engagement within the state administration, in addition to significantly boosting the efficiency of that administration.

There is the potential for a solution to this problem that is adopted at all levels of government to be a driving factor that enhances the nation's competitiveness and contributes to social improvement. As a consequence of this, the objective of this study is to explore the mechanism and social/technological environmental changes that have occurred as a result of the growth of e-government in Korea, as well as to offer a new idea and route for it. In other words, the purpose of this study is to investigate the changes that have occurred as a result of the development of e-government in Korea. E-government was created with the intention of achieving a higher level of public satisfaction with the services provided by public administration. This was accomplished through the utilization of information and communications technology (ICT) to carry out government administration in a quick and accurate manner, which resulted in the reduction of government budgets, the increase of administrative efficacy, and the provision of high-quality public administration services to the general public. Beginning in the latter half of the 1980s, the

Volume 23, Issue 2, August 2023

Pp. 212-218

government of South Korea has been working to put into motion a plan for the establishment of an e-government, with the end objective of offering the most advanced e-government services in the whole globe. In October 2010, the Basic Plan for Mobile e-Government for Realization of an Advanced Administrative Country was drafted with the intention of realizing a government that is responsive to the administrative requirements of the public and communicates with the public. This aim was formed with the intention of realizing an advanced administrative country. The Smart e-Government Promotion Plan was introduced in March 2011 with the intention of achieving a next-generation e-government plan as its ultimate objective. Both of these plans were developed with the goal of realizing a government that satisfies the administrative requirements of the public and interacts with that public.

E-GOVERNANCE REQUIREMENTS

E-Governance is a strategy that changes the way a government provides services to both its internal and external consumers, with the intention of bringing about advantages for the government as a whole as well as for the people that it assists. Within the realm of the public sector, computers are capable of performing an extremely wide variety of useful tasks. It is possible that an improvement in government productivity may result from increasing the amount of money spent on information technology by the government.

BENEFITS OF ICT

This would be beneficial for things like the enforcement of policies and the making of decisions. The following is a list of the primary classifications into which applications submitted to the government fall:-Governance is an interaction of change in the way governments operate, share data, connect with people, and transmit governance to both internal and external consumers to support both the government that they serve. Governance is an interaction of change in the way governments share data. Change is the basis of governance as an activity. The customers as well as the patrons In governmental organizations, there is a wide variety of work that may be performed by a machine to fulfill a variety of functions. In addition to aiding in the authorization of dynamic strategies and other areas, the public authority's profitability would grow significantly if the government were to boost its spending on information technology. The following is a list of the primary categories that are used to classify the applications that are handed in to the public authority:

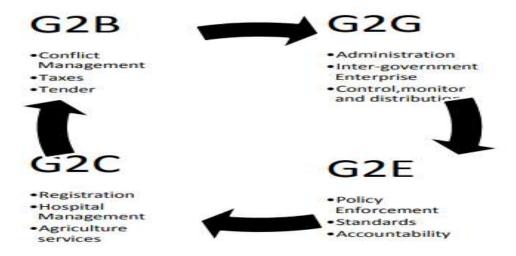


Figure: E-Government Services

The administration was founded with the goal of making everyone's life simpler and more enjoyable so that everyone might benefit from it. The government was able to successfully disseminate information on governance to the populace by leveraging information and communications technology (ICT), which enabled them to do so in an effective, expedient, and fruitful manner. The phrase "smart government" can also be used interchangeably with "egovernment." We are referring to a government that is SMART when we say that it is transparent, good, responsible, and responsive when we use those acronyms. The public authority offers its partners that are actively involved in e-governance a variety of different kinds of assistance in the form of aid.

CONCLUSION

Many developing countries, in the aftermath of the beginning of the information revolution, have looked to information and communications technology (ICT) as a promising new weapon to solve age-old problems of poverty, bad governance, and slow economic progress. This is because many developing nations believe that ICT is the key to unlocking the door to a better future. Although the widespread use of information and communications technology (ICT) can be of immense benefit to industrialized nations, many developing countries are still stymied in their attempts to comprehend how ICT is related to the difficulties they are confronted with. This pattern is equally valid when applied to the realm of electronic government. E-governance is a topic that has caused a lot of discussion in each and every developing nation; certain government offices have even taken some distinctive movements toward the adoption of particular e-governance programs. The proliferation of e-governance has been met with resistance and fear from state officials, who are accustomed to working in a variety of methods, in addition to other issues pertaining to infrastructure, because this is a novel concept for them. This is one of the issues that has been brought about as a result. The encouraging news is that the government is giving e governance a

Pp. 212-218

significant amount of thought at the moment. It has spent a large amount of effort on discovering the barriers that stand in the way of the implementation of national e-governance and on implementing pilot projects in a number of government departments and agencies. Specifically, it has focused on determining the hurdles that stand in the way of the implementation of countrywide e-governance.

REFERENCES

- 1. Whitehouse, P. Duquenoy, K. K. Kimppa, O. K. Burmeister, D. Gotterbarn, D. Kreps and N. Patrignani, "Twenty-five years of ICT and society: codes of ethics and cloud computing," ACM Sigcas Computers and Society, vol. 45, no. 3, pp. 18-24, 2016.
- 2. G. Bonett and T. A. Wright, "Cronbach's alpha reliability: Interval estimation, hypothesis testing, and sample size planning," Journal of Organizational Behavior, vol. 36, no. 1, pp. 3-15, 2015.
- 3. P. Challaagidad and M. Birje, "Trust management in cloud computing," 2017. [Online]. [Accessed 20 September 2019].
- 4. B. Megan, "Major Cloud Computing Vendors," November 2012. [Online]. [Accessed 23 Jan 2017].
- 5. Chen, S., Wang, C. 2010. Accountability as a Service for the Cloud: From Concept to Implementation with BPEL[C]. Proc. 6th IEEE World Congress on Services (SERVICES1), IEEE.
- 6. Goetsch, K. 2014. eCommerce in the Cloud. 1005 Gravenstein Highway North, Sebastopol, the United States of Amrica.
- 7. Itani, W., Kayssi, A. & Chehab, A. 2009. Privacy as a Service: Privacy-Aware Data Storage and Processing in Cloud Computing Architectures [C]. The 8th IEEE International Conference on Dependable, Autonomic and Secure Computing. Chengdu, China.
- 8. Jensen, M. Schage, S. &Schwenk, J. 2010. Towards an Anonymous Access Control and Accountability Scheme for Cloud Computing[C]. The 3rd International Conference on Cloud Computing. Miami, Florida, USA.
- 9. Kong, Jinzhu. 2010. A Practical Approach to Improve the Data Privacy of Virtual Machines[C]. The 10th International Conference on Computer and Information Technology. Bradford, UK.