

A Study on the Transformation in Public Administration through Evolution of E-Governance

Uttiya Kar¹, Dr. MrinalKanti Das²

¹(Assistant Professor, Centre for Management Studies, JIS College of Engineering, Kalyani, India)

²(Department of Commerce, Kanchrapara College, Kanchrapara, India)

Corresponding Author: Uttiya Kar

ABSTRACT : *E-Governance or electronic governance may be defined as delivery of government services and information to the public using electronic means. Such means of delivering information is often referred to as information and communication technology. Use of ICT in government facilitates an efficient, speedy and transparent process for disseminating information to the public and other agencies, and for performing government administration activities. A large number of development initiatives, endorsed and supported by the international development community, focus on enhancing the efficiency, accessibility and democratic accountability of public administration and collective decision-making.*

Experience has taught that e-Governance is not only about introducing or using technological tools. It is fundamentally about a change in mind set and work culture in order to integrate government processes and functions to serve the citizens better. This suggests that improving systems of governance is more of a social activity not a technological activity. With this view in mind, this paper makes an effort to revisit the journey of e-governance in last decade, focusing especially on how the motivation of governments have changed globally over the years in improving the reach, access, quality and sustainability of government services and interaction with its citizen.

KEY WORDS: *e-governance, public administration, development, sustainability, ICT*

Date of Submission: 22-06-2018

Date of acceptance: 07-07-2018

I. INTRODUCTION

Over the past two decades, rapidly evolving information and communication technologies (ICTs) have permeated nearly every aspect of government, business, and daily life. Digital information has exploded in volume and diversity. It is created, shared, and used in numerous ways that can generate both public and private value. Communication networks span the globe, allowing individuals, groups, and organizations to interact regardless of time or location. However, the networked society is fraught with complexity and vulnerable to new threats — threats to stability, privacy, security, and stewardship. This environment of risk and opportunity presents continually evolving challenges for public service. Its effect on the public sector has been characterized in different ways of incremental changes. The impact of these trends have made governments clearly different today than it was couple of decades ago. In the early 1990s, despite substantial deployment of computer technology in the back offices of government, most public officials usually communicated in person or by memo, letter, or telephone. Where office technologies existed, they comprised word processing, spreadsheets, and internal e-mail systems that generally worked only inside a single building. Communications among agencies and between levels of government still relied mostly on the delivery of paper mail. Today, the Internet, global e-mail, laptops, cell phones, and other mobile devices are ubiquitous forms of communication with and within government. Then, although many routine functions were supported by computerized transaction processing systems, most official government records were still maintained and preserved on paper. Today, public records are “born digital,” and many are at risk of disappearing. In the 1990s or even early years of 21st century a government database was almost always tied to one service or regulatory program operated by a single agency. Today, that same information is often transmitted over networks, carried on mobile devices, and made available for uses beyond the original reason for collecting it. Simultaneously, the boundaries between organizations, sectors, and levels of government are becoming more permeable as information is used and reused in interconnected, overlapping organizational networks that often reach deeply into the non-profit and private sectors. Citizens and businesses interact with government much more through e-mail, Web sites, and interactive voice systems, and much less in person or on paper. Government is even beginning to engage in virtual electronic worlds, crossing the boundary between physical and digital communities. This article focuses on e-governance development with a brief look at the evolution of e-governance development in terms of

technology adoption, policy developments, and implementation priorities. The article concludes with thoughts on a future research and innovation agenda.

II. LITERATURE REVIEW:

This literature review summarizes the theoretical contexts, frameworks and proposed models for the evaluation and study of e-government. The review covers a conceptual description of e-government; stage models for the study of e-government and the Stages or phases of e-government implementation; the attributes and characteristics of e-government services; studies of e-government; paradigmatic shifts associated with e-government adoption and implementation; e-government experiences of developing countries vis-à-vis those of developed countries.

The importance of communication to relationships between governments and citizens forms the basis of the argument that information and communication technologies present a significant opportunity for transformation and social change. E-Government is defined in the literature as the use of technology to re-engineer the citizen-government relationship and is a key driver for the modernization of government and the improvement in this relationship. Leith and Morison (2004) capture the centrality of communication by identifying key aspects of the government-citizen relationship. These include the nature and balance of dialogue and its terms; the origin and direction of communication flows; whether communication of information is a form of persuasion by rhetorical or other means; effects on the citizen; how ideas of consultation and dialogue presented within e-government models accord with the nature and role of informal democracy.

Chadwick and May (2003) examined the shift towards e-government in the United States, Britain, and the European Union and presented three heuristic models of interaction between states and citizens that might underpin the practice of e-government. They identified the managerial, consultative, and participatory models of the relationship between government and citizens.

Kumar and Best (2006) claimed that e-government leads to citizen empowerment through improvement of government service delivery to citizens. Welch et.al (2004), West (2004) and Pinaet. al. (2007) analysed that it plays a major role in the transformation of public sector operations, enhances government accountability, and creates greater efficiency in service delivery, access of information for citizens.

Heeks and Bailur (2007) presented a framework for understanding perspectives and impacts associated with IT introduction and its underlying issues to aid the understanding of changes in public agencies. Their framework included perspectives on technological impacts and causes of those impacts.

Coursey and Norris (2008) present a summary description of the models of web Stages approach to the evaluation of e-government. According to their study, e-government evolves in several distinct Stages that reflect changes in its development and can be used to measure progress. These Stages distinguish where different government and specific agencies are on the road to transformation.

Hasan and Abuelrub (2011) reviewed the most recent evaluation criteria methods which were used in different e-business services. Furthermore, it proposes general criteria for evaluating the quality of any website regardless of the type of service that it offers. The dimensions of the criteria are content quality, design quality, organization quality, and user-friendly quality. These dimensions together with their comprehensive indicators and check list can be used by web designers and developers to create quality websites to improve the electronic service and then the image of any organization on the Internet.

Many studies were conducted on different aspects of e-governance in various countries. But holistic study covering nations across the globe was rare. As one of the apex bodies working in public administration United Nations conducts worldwide e-governance survey in every two years. The findings from those surveys are one of the authentic and reliable sources of data covering all UN member states can give us a totalistic view of the global scenario of e-governance over the years and across the globe.

III. METHODOLOGY

The main source of the data and information used and analysed in this paper are findings of the surveys conducted by different agencies (both govt. and non govt.), corporates, academic researchers etc. But the data collected from the global e-governance surveys conducted by United Nations (UN) on all its member states, is used as a reference frame for the study. Based on the data and findings of studied previous works, the period considered in this paper is divided into four phases, to be precise 2001 to 2005, 2006-2010, 2011-2015 and period after 2015.

The study is mostly focused on the gradual yet radical changes in the way governments across the globe dealt with their relationship with the citizens and also with other governments at different levels starting from federal governments and going down to municipalities.

IV. FINDINGS AND ANALYSIS:

4.1. PHASE-I (YEAR 2001-2005)

Since the mid -1990s governments around the world had been executing major initiatives in order to tap the vast potential of the internet for the distinct purpose of improving and perfecting the governing process. Like the personal computer, the internet became an indispensable tool in the day-to-day administration of government.

Countries whose web presence in previous years consisted of one or two static government web pages began offering content rich, well-designed, citizen-centric sites. But despite creative initiatives, national e-government program development remained primarily at the information provision stage. The level of sophistication in which countries were using the internet to deliver quality information did, however, vary considerably. In 2001, of the 190 UN Member States, 169 (88.9%), of their national governments used the internet in some capacity to deliver information and services. For 16.8% of these governments, their presence on the internet was just emerging. The official information offered in these countries was often static in content and limited to only a few independent websites.

Countries with an enhanced internet presence, where users could access an increasing number of official websites that provided advanced features and dynamic information represented 34.2%, the highest number among the UN Member States. Thirty percent of the countries offered interactive online services where users had access to regularly updated content and, among other things, could download documents and e-mail government officials. The capacity to conduct transactions online, where citizens could actually use the internet to pay for a national government service, fee or tax obligation, was offered by many of the states. A country's social, political and economic composition most definitely correlates closely with its e-government program development. However there were exceptions, as evidenced by several developing and transitioning economies.

Governments were increasingly becoming aware of the importance of employing e-government to improve the delivery of public services to the people.

This recognition came about as a result of two interrelated phenomena.

First, the rapid pace of globalization had linked the intra-country trade, investment and finance opportunities of the world into transnational networks, with countries seeking new ways to provide more competitive products and services.

Second, advancement in Information and Communication Technology (ICT) had presented new approaches for the integration of these networks and the improvement of the efficiency of businesses and services worldwide. Led by the private sector, innovative applications had highlighted the potential of using ICT to reduce costs and improve the productivity and efficiency of transactions.

In the process, the revolution in information technology made unprecedented amounts of information available around the globe, leading to an expanded global marketplace for goods, services and ideas. Governments across the world had started recognizing the power of global communication tools, such as the Internet, in revolutionizing markets, providing access to learning and knowledge infrastructure, and forming cross-boundary virtual communities for collective action. At the same time, people were learning of the immense opportunities presented by virtual global networks for reforming political, economic and social power structures.

Many countries started adapting their public sector systems in accordance with the changing environment. Information Technology (IT) applications, especially innovative e-government programmes were increasingly becoming the cornerstone of government operations. However, some countries found it difficult to divert scarce resources towards ICT applications. It is this disparity between opportunity and feasibility that lead to deepening of the "digital divide".

Whereas the technological revolution had created new opportunities to tackle socioeconomic development, it had also generated a new challenge for many countries where technological capability and human resources were not sufficiently developed. Governments were making rapid progress worldwide in embracing ICT technologies for e-government. But was no one model of e-government development. As a result e-government websites were mushrooming around the globe in a haphazard manner. State and sectoral websites reflected wide variations among – and between – countries in the provision of on-line information and basic public services.

There appeared a gradual, but steady, trend toward national portal/gateway sites, specialty portals and one-stop service sites. However the ability of the various governments to develop and present them in an integrated, unified fashion was uneven.

More and more countries were employing a one-stop-shop portal for integrated delivery of information and services. Still, there were wide disparities between, and among, regions and countries in their e-government program offerings. Governments in the high income countries were far advanced in their provision of public information, online services, communications and outreach to citizens, and overall electronic access to government.

Access to both ICT and education infrastructure remained limited in the developing countries posing a constraint on e-government initiatives. As a result, despite efforts, countries were not able to utilize the full potential of either e-government or the ICTs for development.

Information and features designed to facilitate citizen participation and public input on governance –E-participation — had expanded considerably in the past year. However, progress was uneven and mostly limited to a handful of developed economies. Its full potential remained grossly underutilized for the majority of countries.

In the “e-environment,” real Access-for-Opportunity was limited to relatively few in the world. Many developing countries and vast groups of the global population still faced a serious challenge in achieving their own knowledge society.

Trends in e-government development this period indicated that, awareness about the benefits of the information society was increasing. Many developing country governments around the world were promoting awareness about policies and programs, and approaches and strategies to the citizen, on their e-government websites. They were making an effort to engage multi stakeholders in participatory decision-making - in some cases through the use of innovative e-government initiatives aimed at greater access and inclusion.

Despite steady progress in e-government development across the world, lack of access to ICTs remained a major challenge for the world. One of the central obstacles in the progress towards information society for the future in developing countries was the huge disparity in both access and use of ICTs.

The access-divide existed not only across the world, between the developed and the developing countries where commonly perceived to be, but between the rich and the poor in a country, between men and women, between educated and the illiterate; between the urban and the rural and between those with capabilities and persons with disability.

Patterns of ICT diffusion around the world were indicating a concentration of newer technologies in developing countries around those with higher incomes, more technical skills, and living in the urban areas. This had put emphasis on existing disparities in these countries where only the rich had access to opportunity. Access to, and use of, ICTs for development was at an elementary level relegating millions of people outside the inclusive net of the ICTs. Lack of telecommunication infrastructure and education were the key factors limiting both access and inclusion of societies in the developing world.

4.2. PHASE-II (YEAR 2006-2010)

A trend towards reforming the public sector had emerged in many countries stimulated, primarily by the aspirations of citizens around the world, who were placing new demands on governments. The success of government leaders was increasingly being measured by the benefits they were creating for their constituents, namely, the private sector, citizens and communities. Those ‘clients’ of government demanded top performance and efficiency, proper accountability and public trust, and a renewed focus on delivering better service and results.

Several countries around the world were attempting to revitalize their public administration and make it more proactive, efficient, transparent and especially more service oriented. To accomplish this transformation, governments were introducing innovations in their organizational structure, practices, capacities, and in the ways they mobilize, deploy and utilize the human capital and information, technological and financial resources for service delivery to citizens.

Findings of many surveys indicated that governments were moving forward in e-government development around the world. However, given the high demands placed by e-government on a host of foundational pillars which include prerequisites of infrastructure, appropriate policies, capacity development, ICT applications and relevant content that needed to be in place to fully implement e-government services, progress was slow. Only a few governments made the necessary investment to move from e-government applications as such to a more integrated connected governance stage. In terms of connectivity, a robust broadband network was critical to the roll out of e-government applications and services.

In many developed countries which were in the lead of applying connected governance, including OECD countries, e-government development was focused on creating back office coherence and efficiencies to enable the delivery of e-services as part of an expanded public sector service delivery portfolio. At the same time, government back office process integration and re-engineering is also becoming an important objective for some of the developing countries.

However, even though governments shared common challenges, they started from different stages in terms of e-government and administrative development suited to their own needs and within the parameters of their own stated developmental objectives. For most developing countries which were still in their infancy in terms of ICT services roll-out, policy makers started to think of a multiple channel service delivery approach to government services through both electronic and non-electronic media.

The findings of different studies in both administrative and academic sphere underscored the manner by which e-government had emerged as a multifaceted concept linked to the vertical and horizontal integration of government both locally, nationally and transnationally. For some, especially those focused on improving access and delivery of services, this was primarily about the front-end interface with customers and citizens. It is about providing better organized, aligned and often integrated information flows, new transactional capacities, as well as new mechanisms for feedback, consultation and more participative forms of democracy. For others, especially those engaged in the management and delivery of public administration, it was about driving down costs and improving the effectiveness and efficiency of 'back office' functions and the basic machinery of government. For those working at the transnational level it was about removing the barriers to international cooperation and development and creating an agenda of connected governance globally. This was an agenda of organizational transformation that sat alongside the transformation of government implicit in the concept of a connected world. Still parts of the world continued to struggle with the policies and investments associated with not only technological infrastructure such as broadband and wireless Internet access and interactive digital broadcasting, but also the widespread adoption and usage of such technologies by citizens, companies and communities as a whole.

During the end years of this phase E-government tools had been used in an unprecedented manner as a means to support policies to alleviate and cope with the effects of the global economic crisis. They had played a major role in providing transparency of crisis-response measures, conveying relevant information and support to citizens and businesses, and encouraging feedback from citizens on alternatives for addressing the effects of the economic downturn. The capacity to convey transparency was within the reach of, if not all, most national governments around the world. Moreover, there was growing evidence that the provision of transparency – and the use of e-government tools to support it – constituted an approach where the initial investments required were quickly off set by the outcomes generated, such as increased savings and enhanced public trust. By enacting open data principles, governments laid down the foundations to reduce the entry barriers for non-governmental parties, thus allowing for the co-production of public services at minimal costs for governments and, consequently, for taxpayers. The extent to which user-centricity is a component of each of the initiatives was a factor in its success. There existed a nearly systematic discrepancy between the offer of e-government facilities and the actual take-up of the services offered. This indicates that, less than a technological issue, users' acceptance depends ultimately on the extent to which services are able to effectively address their needs and preferences. The capacity of governments to address the issues that emerge as the economic crisis continued to unfold constituted the core element through which trust could be renewed and reinforced, while also enhancing the transparency. As governments found themselves with constrained budgets and mounting demands, the need for providing better value for money became critically important.

Faced with pressure to do more with less, governments found themselves in the position of having to be more efficient and agile in delivering public services in order to meet national development objectives. Potential and actual e-government applications varied across countries and groups. Issues of public service delivery arising from the financial and economic crisis also varied across countries and group. This high degree of variation was reflected in the many different e-government approaches taken in employment, education, women's empowerment, health care and the environment – five selected priority areas of the Millennium Development Goals (MDGs). For example, ICT tools helped female jobseekers and entrepreneurs find opportunities for jobs and loans; m-health delivered vital health services even in remote rural areas of developing countries, including services for HIV/AIDS; and ICT tools enhanced environmental monitoring and raised awareness through effective provision of public environmental information. Across these varied sectors there were common features and trends, due in part perhaps to the shared experience of the financial and economic crisis. ICT-enabled transactional services were being used to meet the drastically increasing demand for social welfare and other benefits, and they had gained in importance and usage. E-transaction services presented an important issue in connection with funding, not only to enhance transparency but from the perspective of public service delivery. Another important trend involved e-participation, closely linked to public service delivery. Many countries, especially developed countries, showed increasing use of new Web 2.0 and other social media tools to create a more interactive environment between governments and citizens. Several countries had invested substantial resources and effort into experimenting with these tools, finding innovative ways to use them for more effective delivery of public services. One of the most noteworthy developments was the rapid and ubiquitous emergence of mobile technology as a powerful tool for public service provision and delivery, especially in developing countries. Mobile service delivery was becoming inescapable in employment, education, women's empowerment and the environment but nowhere it is advancing more quickly than in the health sector. It was at an early and dynamic stage, and the scope of its application was rapidly expanding. The mobile platform was widely being seen as the direction of the future and to play an increasingly important role in public service delivery. Governments responded to the financial and economic crisis by developing new e-government tools, scaling up existing initiatives and by refocusing or stepping up their overall e-government

efforts. Some governments benefited from pre-existing e-government systems and initiatives. E-government work, which had been already carried out proven invaluable in the current crisis, allowing some governments to accelerate their e-government programmes, with a view to realizing benefits such as enhanced efficiency, effectiveness and financial savings on the delivery of public services. Constant progress in ICTs was driving rapid change, presenting both new challenges and new opportunities for public service delivery. Due to pressures on ICT budgets, many countries had cancelled or postponed their ICT projects. Ultimately, however, the crisis acted as a powerful catalyst for improvement in the delivery of public services by governments, which proved to be advantageous in the long run.

There were significant developments in this regard, especially in Africa, and despite the global financial and economic crisis. Rwanda, for example, continued to invest in ICT applications and e-government. Plans to develop Internet connections in developing countries were making steady progress despite the global financial and economic crisis. In the Asian financial crisis of the 1990s, the Republic of Korea continued and even enhanced its investment in ICT development and use of ICTs for public service delivery, experiencing particular success with its e-procurement system. This continuing investment contributed to the country's economic recovery.

4.3. PHASE-III (YEAR 2011-2015)

Progress in online service delivery continued in most countries around the world. Different studies conducted during this period found that many of the countries had put in place e-government initiatives and information and communication technologies applications for the people to further enhance public sector efficiencies and streamline governance systems to support sustainable development. Among the e-government leaders, innovative technology solutions earned special recognition as the means to revitalize lagging economic and social sectors.

Despite progress, there were an imbalance in the digital divide between developed and the developing countries. The latter region had a mean e-government development index of about 30 per cent of Northern America and about half of the world average. The digital divide was rooted in the lack of e-infrastructure, which had hindered information-use and knowledge-creation. The tremendous difference of broadband width and subscriptions between the developing and the developed world indicated that there were yet many milestones to be reached in order to close the gap of the digital divide.

Surveys showed that many countries were moving from a decentralized single-purpose organization model, to an integrated unified whole-of-government model contributing to efficiency and effectiveness. The model aimed at centralizing the entry point of service delivery to a single portal where citizens could access all government-supplied services, regardless of which government authority provides them. In some countries, the whole-of-government approach helped build a transparent government system with interconnected departments and divisions, feeding into the funnel of greater government efficiency and effectiveness.

The increasing power of ICT was also providing governments with the flexibility of providing services and information to citizens through multi-channels. Citizens diverse needs and demands for services; made it is no longer sustainable for governments to utilize one preferred way of service provision over the other. It was now ever more essential that governments exploit all possible delivery channels in order to reach out to as many people as possible, no matter how poor, illiterate or isolated. Survey also indicates that global infrastructure access has improved, reflecting an increase in mobile penetration – the global average number of mobile subscriptions per 100 inhabitants became 88.5. Broadband penetration, however, remained low. Mobile based technologies became the most rapidly adapted technologies to provide e-services, playing a pivotal role, especially in developing countries. Rural areas with very little access to telephony started to get benefit from mobile and broadband services to access services.

With all the cutting-edge technologies and development of social media and networking tools, it was becoming more challenging to diminish the digital divide. Not only is the non-availability of infrastructure such as broadband the main reason behind this divide, but differences in skills and lack of means to access information also play a major role. Therefore it was vital for governments to learn from global best practices and collaborate internationally to develop a harmonized framework with indigenous ICT content.

This is particularly important in the context of multichannel service delivery, where it is important to follow an evolutionary rather than a revolutionary approach to developing new channels. Various survey assessment pointed to horizontal and vertical e-government linkages among various institutions and nodal points that had created opportunities for greater participation and social inclusiveness. By bringing technology to the people instead of making the people come to technology hubs, and by creating opportunities for online service delivery, e-government contributed to coordinated efforts for increased e-government among public sector officials, public institutions and citizens.

Due to a number of factors, there were still wide disparities among regions and countries in their state of e-government development as observed throughout surveys during this period. One clear observation is that

the income level of a country is a general indicator of economic capacity and progress, which thus influenced its e-government development. Access to ICT infrastructure and the provision of education, including ICT literacy, are related to the income level of a nation. The absence of these factors hinders the implementation of e-government initiatives. However, it is clear that national income does not, by itself, constitute or guarantee e-government development. There were many countries that had significantly advanced their e-government despite relatively low national income, just as there were many countries which were lagging behind despite their relatively high income and thereby have good opportunities for future improvement.

In 2014 for the first time, all 193 United Nations Member States were found to have national websites, but the majority remained at the low or intermediate levels of e-government development.

In terms of usability features, a large majority of countries provided users with basic search tools to locate content, and most did so in more than one language. However, only about half of the United Nations Member States maintained an advanced search engine, only 40 per cent enabled user opinion features and less than one third had the availability of a secure connection. There also appeared to be substantial underutilization of the potential of text-based Short Message Service (SMS) despite the dramatic global growth of mobile devices usage, including in the low income countries. The most frequently found transactional services included setting up of personal online accounts, income tax filing and business registration, but overall there was great diversity in types.

On the whole, there were substantial variability in the scope of online service delivery. Differences between the highest and lowest online service scores and between the different stages of e-service development were noticeable, despite progress in some areas. Improved access to telecommunication infrastructure had facilitated e-government development in some cases, but in general the most advanced countries continued to outpace the less developed in online service delivery.

The increasing expectation for easier access to more public information and public services from anywhere, anytime through multiple channels or citizen touch-points drove adoption of digital channels, with both their diversity and spread, by almost all countries, while counter (face-to-face service) and telephone (voice) services, continued to serve as fundamental channels.

In 2014, all 193 United Nations Member States came up with some form of online presence, as compared to 18 countries with no online presence in 2003 and three countries in 2012.

Between 2012 and 2014, the number of countries offering mobile apps and mobile portals doubled to almost 50 countries, where they were often used directly to support poverty eradication, gender equality and social inclusion, as well as promote economic development, environmental protection and disaster management. The use of social media by governments was also increasing fast. Both social media and mobile channels typically do not require high investment costs as they ride on consumerisation and non-governmental platforms, but they often need a business transformation and strong commitment in the public administration to maximise benefits.

On the whole, there was a substantial variability in the scope of online service delivery. Differences between the highest and lowest online service scores and between the four stages of e-service development were considerable, despite progress in a number of areas. Improved access to telecommunication infrastructure had facilitated e-government development in some cases, but in general the most advanced countries had continued to outpace the less developed in online service delivery. This finding reaffirms the need for a close connection between online service strategies, telecommunication infrastructure, human capacity and other social and economic factors.

Successful middle-income countries, while continuing to enhance leadership and infrastructure, had also been able to draw on investments in tertiary education and a strengthened ICT sector. Where high-income countries are concerned, the study found an apparent trend towards convergence in online features with increasing commitment to expanding e-participation opportunities and promoting open government data. This positive connection underscores the fact that ICT policy encompassing telecommunication strategy, Internet governance and tertiary education in science, mathematics, engineering and technology can be a key driver of online service expansion in public administration.

4.4 PHASE-IV (2015 ONWARDS)

A new trend in e-government had been the evolution towards the provision of integrated public services online through, among others, one-stop platforms allowing accessing a range of public services. This approach made it easier for people to interact with public administration and get adequate and holistic responses to their queries and needs. Progress made towards delivering public services in such an integrated way. Efforts were being made to ensure privacy and security of personal data. But challenges remained. Propagation of technologies, made it difficult to ensure integration of services across sectors. Along with integrated services, e-government could increasingly support policy integration and encourage the efforts of various government institutions to work more closely together. It could provide governments with increased insights to help revisit

existing decision making processes and work flows. Progress was however slow. Although there were examples of successful integration of policies within the social area for example, integrating policies and services across the economic, social and environmental areas remained difficult.

E-participation was expanding all over the world. With growing access to social media, an increasing number of countries started to use networking opportunities to engage with people and evolve towards participatory decision-making. This was done through open data, online consultations and multiple ICT-related channels. While developed countries, especially European countries, were among the top performers, many developing countries made good progress as well; especially lower-middle income countries. In general, a country's lower income level is not an obstacle to posting basic public sector information online on national portals or using social media and other innovative means for consulting and engaging people on a broad range of development-related issues. Yet, a country's income level matters when it comes to developing more technically complex and specialized e-participation portals, such as for e-petitioning or online consultation and deliberation. A growing number of e-participation applications and tools were being put in place in various sectors with the objective of responding to the needs of various communities. This contributed to the development of new forms of collaborative partnerships between government bodies and people and reinforces the focus on people's needs. The largest share of these initiatives related to the central government and local authorities giving access to public sector information and public consultation via e-tools. But there has been a growing focus on mobilizing contributions to policy-making. Making progress in participatory and democratic decision-making became critical for success of e-participation. Advances in e-participation today are driven more by civic activism of people seeking to have more control over their lives, rather than by the availability of financial resources or expensive technologies. Several developing countries, including some least developed countries, generate numerous good practices by using low-cost (open code source) ready-made solutions that are based on collaboration among citizens.

By 2014 all 193 United Nations Member countries developed to have some kind of online presence, although with different degrees of development. Countries across the world made substantial progress in online service delivery. Published surveys show that digital technologies—the Internet, mobile phones, and all the other tools to collect, store, analyse, and share information digitally— are being increasingly utilized. Which suggests that innovative approaches are being applied in the public sector and specifically in public service delivery. In all sectors reviewed, mobile services have experienced a large and significant growth. Higher levels of online service tend to be positively correlated with a country's income level. At the same time, the capacity of countries to reform public institutions and their commitment to providing advanced people-driven service delivery, can also influence their ability to use ICT and e-government for promoting inclusive societies and sustainable development. Regarding sectorial and transactional services, more countries have introduced online services for tax submission and registration of businesses, thus reducing the administrative burden for new and existing businesses and increasing transparency. Online application is also being provided for a growing number of certificates (e.g. birth, marriage, social security). This saves time and money for people and increases the efficiency of public institutions. The availability of information has increased in the area of education, health, finance, welfare, labour and the environment, with the finance sector leading and the environment sector experiencing the sharpest increase. The increase in the online provision of sectorial and transactional services has been driven by the bold adoption of new technological approaches, a high commitment of the leadership of concerned countries and administrations, effective and capable institutions, as well as regulatory reform. Most of this growth was channeled via SMS services, mobile apps and user-friendly social media tools. The overall availability of broadband has increased globally, but there are substantial regional disparities and a major divide persists. Accessibility and availability of mobile devices support improvements in health, education, agriculture, commerce, finance and social welfare. It can allow regions that jumped into wireless broadband to step up innovation and narrow the digital divide.

While divides between and within regions and countries are wide, all regions have seen some advancements in mobilizing ICT and e-government for the poorest and most vulnerable. The Survey shows that more than half of the countries in Europe, provide online services to at least one vulnerable group. Africa has also recorded a significant increase with more countries introducing targeted services to vulnerable groups. At the national level the digital divide does not reflect only issues related to access, infrastructure and availability of technology. It also reflects the inequalities that exists in the social and economic areas. Educational and income levels, race, gender, culture and age also often influence access to digital technology and e-government services. So does geography. Technological progress continues to drive innovative development interventions. The use of Geographic Information System data and Internet of Things (IoT) hold the potential to transform the way public policy is formulated, implemented and monitored. Their early adoption has shown increased levels of civic participation and enhanced efficiency, transparency and accountability of public institutions. However improvements of legal and regulatory frameworks and enhanced cooperation are required at all levels.

Looking back at the past fifteen years, the e-government development process has been shifting away from a staged process or progression to non-sequential, overlapping and connected building blocks. Evidence suggests that e-government goals and targets are constantly evolving in response to evolving values and needs. Moving forward, combined efforts are needed to:

- Establish global, national and local e-government indicators to better understand e-government's impact on sustainable development;
- Adopt a fully inclusive approach to e-government development including through bridging all digital divides and ensuring multilingualism; and
- Enhance global and regional cooperation, including North-South, South-South and triangular cooperation, and public-private partnerships.

Further work is needed to better understand the expectations people have from e-government and the use they make of it, so that the systems put in place help to improve people's wellbeing, respond to their needs and empower them to contribute to policy making and public services. Also critical is to understand how non-state actors, including NGOs and the private sector, engage with e-government; be it to deliver better services to people or make their voices heard. Today, e-government has become a development indicator and an aspiration in and of itself. It can clearly contribute to development. It has helped advance the delivery of basic services such as education, health, employment, finance and social welfare. It is helping small island developing states in building resilience to climate change and disaster preparedness and disaster management. It can play a critical role in making institutions more inclusive, transparent, and effective. But for e-government to realize its full potential impact on development, it needs to be accompanied by measures to ensure access and availability of ICT and make public institutions more accountable and more responsive to people's needs.

Not only is improving public institutions a distinct sustainable development goal, but sound public institutions are crosscutting and will underpin the achievement of all other goals. Opening up government data can be an essential measure to increase transparency and accountability, promote participation, and stimulate innovation in institutions.

E-Governance in India

Among developing countries, India has been an early adopter of e-governance. Over the years, a large number of initiatives have been undertaken by various State Governments and Central Ministries to usher in an era of e-Government. Sustained efforts have been made at multiple levels to improve the delivery of public services and simplify the process of accessing them.

The first wave can be considered to have evolved bottom-up. The *Gyandoot* project in Dhar district, which began in 2000, is considered the forerunner of what was to be a rash of projects that built a front-end in many village communities which was supposed to be serviced by a back-end mostly in the district collectorate. The idea and the effort was to create pressure from the community front-end for digitisation of back-end departmental processes. The latter was largely a localised effort, mostly dependent on the initiative and energy of the concerned district collector, often with some very spirited support of the district National Informatic Centre (NIC) staff. Perhaps the most organised and successful effort in this first phase of e-governance in India, roughly between 2000-05, was *Rurale-Seva* in West Godavari district of Andhra Pradesh. As for community level front end development two initiatives, *N-logue* and *Drishiti* stand out, each of which at one time claimed to be running thousands of community telecentres across the country that could deliver e-governance services.

e-Governance in India has steadily evolved from computerization of Government Departments to initiatives that encapsulate the finer points of Governance, such as citizen centricity, service orientation and transparency. Lessons from previous e-Governance initiatives have played an important role in shaping the progressive e-Governance strategy of the country. Due cognizance has been taken of the notion that to speed up e-Governance implementation across the various arms of Government at National, State, and Local levels, a programme approach needs to be adopted, guided by common vision and strategy. This approach has the potential of enabling huge savings in costs through sharing of core and support infrastructure, enabling interoperability through standards, and of presenting a seamless view of Government to citizens.

The National e-Governance Plan (NeGP) 2006, took a holistic view of e-Governance initiatives across the country, integrating them into a collective vision, a shared cause. Around this idea, a massive countrywide infrastructure reaching down to the remotest of villages started evolving, and large-scale digitization of records initiated to enable easy, reliable access over the internet. The ultimate objective was to bring public services closer home to citizens.

The Government approved the National e-Governance Plan (NeGP), comprising of 27 Mission Mode Projects and 8 components, on May 18, 2006. In the year 2011, 4 projects - Health, Education, PDS and Posts were introduced to make the list of 27 MMPs to 31 Mission Mode Projects (MMPs). The Government has accorded approval to the vision, approach, strategy, key components, implementation methodology, and

management structure for NeGP. However, the approval of NeGP does not constitute financial approval(s) for all the Mission Mode Projects (MMPs) and components under it. The existing or ongoing projects in the MMP category, being implemented by various Central Ministries, States, and State Departments would be suitably augmented and enhanced to align with the objectives of NeGP.

In order to promote e-Governance in a holistic manner, various policy initiatives and projects have been undertaken to develop core and support infrastructure. The major core infrastructure components are State Data Centres (SDCs), State Wide Area Networks (S.W.A.N), Common Services Centres (CSCs) and middleware gateways i.e. National e-Governance Service Delivery Gateway (NSDG), State e-Governance Service Delivery Gateway (SSDG), and Mobile e-Governance Service Delivery Gateway (MSDG). The important support components include Core policies and guidelines on Security, HR, Citizen Engagement, Social Media as well as Standards related to Metadata, Interoperability, Enterprise Architecture, Information Security etc. New initiatives include a framework for authentication, viz. e-Pramaan and G-I cloud, an initiative which will ensure benefits of cloud computing for e-Governance projects.

Meanwhile, many independent department level digitisation and automation projects were taking shape. Digitisation of records of land ownership and transactions had been one of the key areas with considerable impact for rural India. In many cases, end to end digitisation was facilitated by significant changes in government rules, which provide some early instances of full-scale e-governance process re-engineering. Some other automation activities like computerisation of government treasuries and financial transactions also had considerable impact on the efficiency of governmental functioning, and represent largely successful and sustaining e-governance efforts.

The infrastructural and technical support projects have mostly been working well. NeGP has been able to provide a common sense of urgency, mechanism and some funding support for large-scale adoption of e-governance by various departments of the central and state governments. Such a catalytic action, and perhaps creating an environment for competitive performance, was very much needed in the initial phase. Department of IT gives technical support to e-governance initiatives of various departments at the central and state levels, including through listed consultants. They also ensure some degree of common architecture which is very important for interoperability, especially required when, at a later stage, across-the-government integration of operations and services may be sought.

The Unique ID project, listed as a Mission Mode Project under NeGP, is also well underway. Department of IT has also come up with a 'Framework for Mobile Governance', which lays out the vision and strategy for mobile governance. It envisions setting up a Mobile Service Delivery Gateway, Mobile AppStore for governance applications, mobile authentication and payment gateway, and APIs³ for different service providers. Department of IT has also notified a 'Policy on Open Standards for E-governance', and the work of notifications of open standards in various areas is underway. Guidelines for use of social media by government agencies were issued by the Department of IT. Internal and stakeholder consultations on the opportunity and challenges for e-governance in a cloud computing environment are also underway.

NeGP has done very well in providing infrastructural and technical support for widespread adoption of e-governance in India. However, there seems to be a significant gap on the non-technical side, *vis a vis* governance process re-engineering architectures and the broad socio-political principles that need to be addressed though and in e-governance. It is to a good extent due to the NeGP that large-scale digitisation is taking place in most departments in the central and state governments. As the process of digitisation and automation (the early stage of e-governance) has proceeded at a steady pace across government agencies, it has produced substantial efficiency gains and some improvements on the transparency front. If greater gains in the area of transparency, accountability and community participation have not been attained, it is largely because e-governance in India has still mostly been conceived and implemented in a techno-managerial mode and without sufficient socio-political vision.

However, it is true that e-governance in India was established in an environment where new ICTs were taking the world by storm, and no one could easily prejudge what could be attained by employing ICTs in governance, and how. It was therefore required to go through a period of intense experimentation. A clear vision and policy for this purpose may be a prerequisite. Such a policy should also assign relevant role to government agencies and departments who shall provide technical lead and support, those that will provide governance reform vision, and generic process principles and guidelines and the departments that actually undertake e-governance activities in their respective areas of competence and work. It will also align e-governance with overall thrusts of governance reform in India – chiefly, decentralisation, right to information, and community monitoring and social audits, whose objectives e-governance should primarily be serving. A promising policy initiative is the Electronic Services Delivery (EDS) Bill. This legislation makes it compulsory for all government agencies to begin delivering their services in an electronic mode. All services that can be provided electronically must be so provided. There is a provision for independent EDS Commissions at the central and state level that will monitor provision of electronic delivery of services. Such a welcome push for quicker e-

governance uptake, as the EDS legislation is expected to provide, makes it even more important to articulate an overall e-governance policy in India, which makes a detailed socio-political examination of new possibilities in light of the specific needs and current thrusts of governance reform in India.

V. CONCLUSION

Many of the technological questions concerning e-government have been solved. The next major questions that arise is how to allow for a sustainable implementation of e-government that ensures nationwide and financially realisable as well as advanced solutions across all administrative competencies. Regardless of the actual structures of government and public administration, this is universally conceived by all countries as a problem of effective coordination and cooperation between the authorities and the different administrative levels. In all countries, however, such demands are consistently more advanced than the actual attempts to provide solutions. This even applies to those countries that are generally evidenced to be at a comparatively advanced stage of e-government development. For example, in the US as well as in Great Britain there exists a high awareness of the necessity of inter-governmental cooperation between all governmental levels as a prerequisite for the successful and expansive introduction of e-government. Regarding actual progress in this respect, however, there are high deficits in both countries. In Germany also an increased interaction of all governmental levels is called for, but the actual approaches are limited.

As a result of these discrepancies, we could identify approaches and patterns, but not yet any distinct 'success models'. The success of any model derived from these approaches will most likely depend on its details and, above all, the concerted interaction of the different approaches.

Regarding such patterns, the collection, generation and dispersion of knowledge are primarily emerging as the collective responsibility of the superior levels of central administration. This responsibility emerges regardless of the structures of federal government and public administration, which anyway do not regulate information-related acts. The actual means, however, in particular those for gathering information, are subject to the distribution of competencies between the administrative levels.

We could identify the construction of WANs and integrated portals, the setting of standards (in particular for ensuring interoperability), joint developments and applications, as well as coordinated procurement as fields of increased cooperation and coordination needs which have partly led to first solutions. The particularly significant development of standards is characterised by very cooperative and mostly institutionalised procedures.

This corresponds with the general observation that coordination between the authorities and the administrative levels is motivated above all by soft means such as financial or other incentives and support provided by central authorities. The latter also corresponds well with the knowledge-management approach. In view of these means, the difference between centrally and federally organised states is not yet really of importance. However, the question will remain for the time being whether these soft approaches are sufficiently effective or can at least be made effective, or whether the control instrument of regulatory power will not after all become necessary at least as an auxiliary instrument. The degree of the communal level's self-organisation could well be a decisive factor in this respect. However, if hierarchy and binding specifications should in future gain more importance for coordination and cooperation, further development will of course be more strongly influenced by questions relating to the constitutional structures of the state and public administration. At present, however, all countries can still learn from one another by examining the more advanced solutions of other countries for their own unsolved questions.

Since there is no standard formula for effective e-government, each country needs to devise its own e-government strategy and programme, based on its political, economic and social priorities and its financial, human and technological endowments. The imperative for effective e-government remains a multi-pronged approach based on ICT as well as human and telecommunications infrastructure development. If effectively utilized, e-government can push the frontiers of development around the globe. This study may contribute to this mutual learning.

REFERENCES:

United Nations Global e-Government Surveys:

- [1] <http://unpan3.un.org/egovkb/Portals/egovkb/Documents/un/English.pdf>
- [2] <http://unpan3.un.org/egovkb/Portals/egovkb/Documents/un/2003-Survey/Complete-Survey.pdf>
- [3] <http://unpan3.un.org/egovkb/Portals/egovkb/Documents/un/2004-Survey/Complete-Survey.pdf>
- [4] <http://unpan3.un.org/egovkb/Portals/egovkb/Documents/un/2005-Survey/Complete-survey.pdf>
- [5] <http://unpan3.un.org/egovkb/portals/egovkb/Documents/un/2008-Survey/unpan028607.pdf>
- [6] <http://unpan3.un.org/egovkb/Portals/egovkb/Documents/un/2010-Survey/Complete-survey.pdf>
- [7] <http://unpan3.un.org/egovkb/Portals/egovkb/Documents/un/2012-Survey/Complete-Survey.pdf>
- [8] http://unpan3.un.org/egovkb/Portals/egovkb/Documents/un/2014-Survey/E-Gov_Complete_Survey-2014.pdf
- [9] <http://workspace.unpan.org/sites/Internet/Documents/UNPAN97453.pdf>

Journal Papers

- [10] Carter, L. and Belanger, F. (2008). Trust and risk in e-government adoption. *Journal of Strategic Information Systems*, Volume 17 Issue 2, June, 2008, pp. 165-176
- [11] Chadwick, A. and May, R. (2003), Interaction between States and Citizens in the Age of the Internet: e-Government in the United States, Britain, and the European Union. *Governance: An International Journal of Policy, Administration, and Institutions*, Vol. 16, No. 2, April 2003, pp. 271-300
- [12] Cocchiglia, M. and Vernaschi, S. (2006). "E-Government for Development: Rhetoric and Reality", *Journal of E-Government*, 2(2): 3-18.
- [13] Coursey, D. and Norris, D.F. (2008), Models of E-Government: Are They Correct? An Empirical Assessment, *Public Administration Review*, Vol. 68 Issue 3, pp.523-536, 14p May /June 2008
- [14] Dada, D. (2006). The Failure of E-Government in Developing Countries: A Literature Review, *The Electronic Journal of Information Systems in Developing Countries*, Vol 26 (2006)
- [15] Grant, G., & Chau, D. (2005). Developing a generic framework for E-Government, *Journal of Global Information Management*, 13(1), 1–30.
- [16] Hasan, L. and Abuelrub, E. (2011), Assessing the quality of web sites, *Applied Computing and Informatics*, 2011 vol: 9 (1) pp: 11-29
- [17] Heeks, R. and Bailur, S., (2007), Analyzing e-government research: Perspectives, philosophies, theories, methods, and practice, *Government Information Quarterly*, Vol. 24, pp. 243-265.
- [18] Heeks, R. and Bailur, S., (2007). Analyzing e-government research: Perspectives, philosophies, theories, methods, and practice, *Government Information Quarterly*, Vol. 24, pp. 243-265
- [19] Janssen, M. and van Veenstra, A. F., (2005). Stages of growth in e-Government: an architectural approach, *The Electronic Journal of e-Government*, Vol. 3, No. 4, pp 192-200.
- [20] Leith, P. and Morison, J. (2004) Communication and Dialogue: What Government Websites Might Tell Us about Citizenship and Governance *International Review of Law Computers & Technology*, Volume 18, No. 1, Pages 25–35, March 2004
- [21] Sharma, S (2004). Assessing e-government implementations. *Electronic Government, an International Journal*, Volume 1(Issue 2), pp. 198–212
- [22] Tassabehji, R. (2005). "Inclusion in e-Government: A Security Perspective", e-Government Workshop '05 (eGOV05), Brunel University
- [23] Tolbert, C.J. & Mossberger, K. (2006). The Effects of E-Government on Trust and Confidence in Government , *Public Administration Review*, Vol. 66 No. 3, pp. 354-369
- [24] <http://www.itforchange.net/e-governance-india-existing-context-and-possible-scope-for-undp-programing-over-2013-18>

Uttiya Kar " A Study on the Transformation in Public Administration through Evolution of E-Governance." *International Journal of Business and Management Invention (IJBMI)* , vol. 07, no. 06, 2018, pp. 54-65.