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## Understanding Public Value of a Few e-governance Projects in India

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### Abstract

*E-governance is a growing phenomenon aimed at providing efficient public service delivery to citizens across nations. A few of the developed nations had implemented e-governance initiatives successfully though, others are still striving towards it. The technological advancement has enabled public organisations to offer public services in a digital and virtual manner. However, various e-governance projects still require physical presence of citizens at the time of service delivery. Compared to fully computerised projects, in such projects citizens are expected to incur more cost, spend more time and put extra efforts to avail services. Therefore, we studied a few such e-governance projects in India to analyse their public value measurement and to identify variables which may be influencing public value of such projects. In this respect, we have used Situation-Actor-Process (S-A-P) framework to understand the situation, actors and process of these projects.*

**Keywords:** E-governance, E-government, Public value of e-governance projects, SAP-LAP.

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### Introduction

Advantages of e-governance are well-known to the various governments across the globe. In the past few years, its reach has also increased with the effective use of Information and Communication Technology (ICT). While developed countries are among the performers, developing countries are still striving towards digitization of public service delivery. Information Technology (IT) was introduced in India in 1998 for the improvement of efficiency of government departments. Departments were asked to invest 2 to 3 percent of the total budget into IT (Planning Commission, 1997-02). However, expected results could not be achieved due to the isolated efforts by various departments. Service delivery at government departments was still not transparent due to the discretion involved at every level and lack of user friendliness (Planning Commission, 2002-03). Therefore, government realized the requirement for National e-Governance Plan (NeGP). NeGP was approved in 2006 comprising 31 Mission Mode Projects (MMPs). Further, in 2015, Digital India Programme was introduced by government with the objective to transform India into digitally empowered society and knowledge economy ([www.meity.gov.in](http://www.meity.gov.in)). Digital India Programme has mainly three vision areas, viz. digital empowerment of citizens, digital infrastructure as a utility to every citizen and governance and services on demand. Under this programme, NeGP has also been re-designed and re-named as e-Kranti. Objective of e-Kranti is to improve government services with the use of digitization at a lowest cost. The number of MMPs under e-Kranti has also been increased to 44 regarded as as Central, State and Integrated Projects.

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Governments put efforts to offer benefits to citizens with respect to digitization of information, e-participation, transparency, etc. through e-governance. With the successful implementation of e-governance, public organizations are able to provide improved services to citizens. It further helps to strengthen the relationship between public organisations and citizens. Value created by public organizations for citizens is also known as public value. It is a well-known concept which is used to evaluate the performance of public services (Moore, 1995). Public value is the outcome of services, laws, regulations and other actions of government (Kelly, 2002). In different words, performance of public organizations can be measured through public value. Therefore, public organisations should focus to create more and more public value (Harrison et al., 2011). Services offered by governments are mainly citizens' oriented thus performance of public organizations should also be measured from the perspective of citizens. Hence, governments are expected to measure the performance of public organisations by adopting the concept of public value (Karunasena et al., 2011).

Many studies have been conducted to measure the performance of government portals or electronic services (Yang et al., 2005; Kim et al., 2006; Golubeva, 2007; Bidyarthi and Srivastava, 2011; Bhattacharya et al., 2012) however, in developing countries like India, e-governance is still at emerging stage therefore, all public services are not available on websites completely. As per present scenario, to avail many public services such as passport, driving license, registration of property, etc. citizens are still required to visit the public organisations. A citizen at the time of his visit to a public service centre faces a situation with respect to sitting space, availability of drinking water, cleanliness, queues to avail services, etc. He/She also deals with employees and observes a few parameters such as their willingness to do the work, speed to complete the work, knowledge level, communication skills, etc. Further, a citizen during service delivery also goes through a process and experiences process flexibility, continuity, easiness, convenience, etc. Hence, it is expected that based on 'Situation', 'Actor' and 'Process' (S-A-P) related variables (Sushil, 2000), citizens form a perception with respect to service delivery which is conceptualized to influence public value of the organisation.

The objectives of study are:

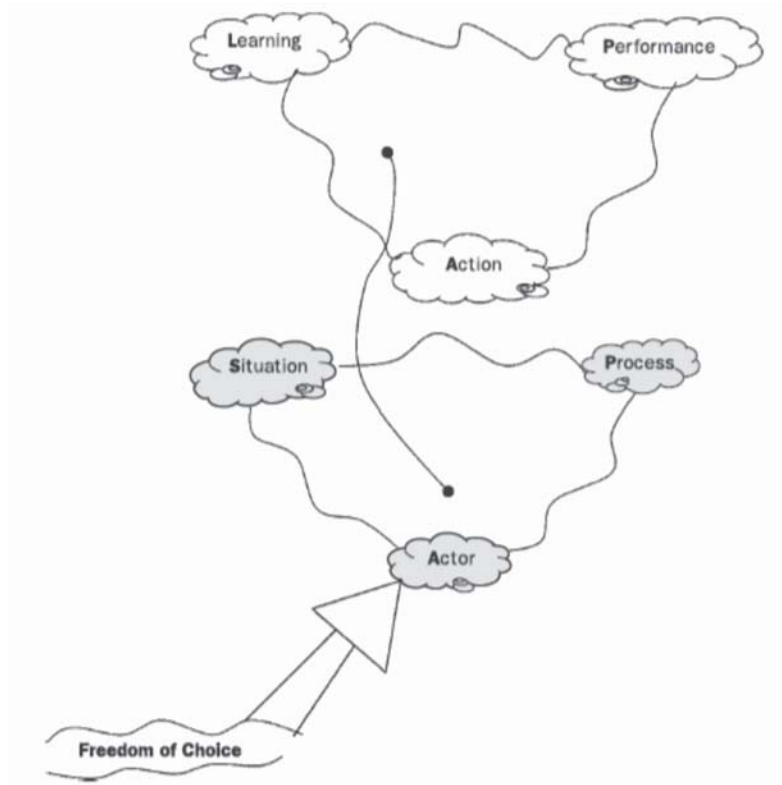
- To analyse public value measurement of a few public services with the requirement of citizens' presence
- To present conceptual framework of public value measurement based on S-A-P related variables

### Methodology

To get insights about public value, a literature review was conducted with respect to its measurement. During the literature review, a few studies those have evaluated public value of government websites/portals were maintained separately as aim of the present study was to focus on the projects where citizens are required to visit the service centres. Further, a few e-governance projects were selected for profound study in the study context. Selection of projects was executed after understanding the process of their service delivery, visiting their websites and studying their annual reports and manuals available on the websites. It was also kept into consideration that the projects selected for the study should have completed at least one year of operation and should be citizens' centric in nature along with mandatory requirement of citizens' presence at the time of service delivery.

A SAP-LAP framework (Sushil, 2000) has been used in the study as it is conceptualized in the study context that SAP related variables are expected to influence public value of e-governance projects. Unlike any management context, service centres of public organizations also consist

of a 'situation' to be managed, an 'actor' or a group of actors to deal with the situation and a 'process' or a set of processes that respond to the situation and recreate it. SAP-LAP framework is generic in nature and has been used in various areas such as technology management, supply chain management, resource management, etc. (Garg and Deshmukh, 2010; Charan, 2012; Chauhan and Singh, 2013; Mangla et al., 2014; Suri, 2017; Gupta and Suri, 2017).



**Figure 2: SAP-LAP Framework**  
(Source: Sushil, 2000)

### Literature Review

Public value is the measurement of services at public organizations. There are various sources to evaluate the same such as delivery of quality public services, achievement of outcomes and development of trust (Kelly et al., 2001). It was further examined by Kearns (2004) basis which it can be measured through extent to which information is provided, extent to the use of e-government, availability of options, fairness in service delivery and saving of costs. In the context of developed countries, there are mainly three drivers of public value, viz. efficiency, democracy and effectiveness (European Commission, 2006). An another public value framework measures public value on the basis of services provided by public organizations, satisfaction of users, trust and outcome (Grimsley & Meehan 2007). Measurement of public value of e-governance projects is based on delivery of quality public services, effectiveness of public organizations and achievement of socially desirable outcomes (Karunasena, 2012).

During the literature review it was found that there are many studies which have evaluated websites/portals of services provided by government from the perspective of public value. A

study in the context of Turkish has evaluated websites of sixteen local governments. As per the study, websites usually consider content and quality however, public value perspective is the primary objective of government websites (Karkin, 2014). The study has been divided into total nine categories, out of which three are related to web evaluation matrix .i.e. content, usability and Quality and six are associated with public value, viz. accessibility, citizen engagement, transparency, responsiveness, dialog and balancing of interests (Karkin, 2014)

Another study in the context of India, has presented e-service quality model for Indian government websites from the perspective of citizens (Bhattacharya *et al.*, 2012). The model is guided by two external factors, viz. information quality and system quality and consists of mainly six dimensions:

1. citizen centricity;
2. usability;
3. technical adequacy;
4. security and privacy;
5. transaction transparency; and
6. complete information.

As per a study by Golubeva (2007), major indicators for government portals assessment are openness, transparency, interactivity, citizen-centricity and usability. The study was conducted to measure the influence of e-government by evaluating 11 regional government portals in Russia. Another study of web portals those are source of information for its users were examined to develop a measurement scale of perceived service quality of information (Yang, 2005). The study included commercial portals and non-commercial portals developed by government agencies. Variables related to online transaction were not the part of this study as focus of the selected portals was on providing information only (Yang, 2005). Mainly six quality dimensions have been proposed in the study:

1. usefulness of content;
2. adequacy of information;
3. usability;
4. accessibility;
5. privacy/security; and
6. interaction.

In a study by Verdegem and Verleye (2009), a comprehensive model to measure the user satisfaction by testing five websites of government has presented. This model has mainly nine key indicators, viz. infrastructure, availability, awareness, cost, technical aspects, customer friendliness, security/privacy, content and usability. As per the article, major criticism of e-government strategies is lack of user oriented approach due to which requirement of measuring online government services from the perspective of users is felt (Verdegem and Verleye, 2009).

As mentioned above, many existing studies have measured government websites/web portals to measure the public value from the citizens' perspective. However, in developing countries like India, there are many e-governance projects where citizens are required to visit the public organisations at the time of service delivery. Such services are the part of e-governance initiatives however, these are not completely computerised therefore, citizens either by taking appointment over the phone or through websites are needed to go the service centres to avail the service. A

few such services are registration of marriage, registration of birth for the requirement of birth certificate, requirement of driving license, registration of property, request for conversion of immovable property from leasehold to freehold, request for passport, etc. These services are basic in nature and most of the citizens face requirement of any of the service as mentioned. Such three services have been explained below for the purpose of profound understanding in the study context.

## **Projects Description**

### ***Passport project***

In India, passport services are delivered by Central Passport Organization (CPO). It is a division of Central Passport and Visa (CPV) of Ministry of External Affairs (MEA). The ministry hired services of Tata Consultancy Services (TCS) in 2008 for the execution of passport services under Public-Private-Partnership (PPP) mode. The formal launch of the passport project was done in May, 2010. Scope of the project consists of re-engineering of the processes, development of application and website, data migration and communication, infrastructure with regards to setting up of passport offices, increasing printing capacity, setting up call centre, etc. The main objective behind introducing the project was to meet the increasing demand for passports, developing a transparent and easy process for the issuance of passports, building better grievance redressal mechanism, discouraging the role of mediators by building an efficient and reliable system, etc. Passport project is one of the Mission Mode Projects (MMPs) with the network of 77 passport service centres across India.

As per the process of passport service, citizens are required to visit the website, i.e. [www.passportindia.gov.in](http://www.passportindia.gov.in) and after registration they are needed to fill up the online application forms. Next step is to make the payment of fee online and book and appointment on the website itself. Then on the said appointment date they have to visit the passport service centre along with their documents.

### ***Driving license project***

Driving license is a document which is required to get the certification of eligibility to drive a vehicle as per Motor Vehicles Act, 1988. It is issued by department of transport. Transport department has tied up with Delhi Integrated Multi-Modal Transit System Ltd. (DIMTS) for this purpose. Since July 2007 DIMTS is a joint venture of Government of National Capital Territory of Delhi (GNCTD) and Infrastructure Development Finance Company (IDFC) foundation. Driving license project is a state level project which has been implemented at thirteen zonal transport authorities. Overall scope of the project includes setting up of the centralized data repository, developing an online appointment system, offering e-payment facility, efficient check on issue of multiple licenses, checking the identity of the applicant through biometric, discouraging duplication of data, decreasing the possibility of manipulations, etc. As per the process of driving license application, citizens are required to visit a website, i.e. [www.transport.delhigovt.nic.in](http://www.transport.delhigovt.nic.in) through which they can fill up the online form and can book the appointment after making payment electronically. There is also a mechanism to book the appointment by calling at a toll free number, viz. 09311900800. The purpose of the new system is to computerized the whole process by minimizing the interference of human to make to process more efficient, transparent and secure. However, after booking of appointments, applicants are needed to go to the driving licence office to avail the services. It is also expected that applicants may have to make multiple visits in case of any documents deficiency.

### **Conversion of immovable property from leasehold to freehold**

Delhi Development Authority (DDA) was established under Delhi Development Act 1957 to support and protect planned development of Delhi. The main branch of DDA is housing department which was started in 1968. The core objective of this department is to meet the housing requirement of the society. Out of the other functions of housing department, one major function is to convert the immovable property from leasehold into freehold. Since 1969, many housing schemes have been launched by DDA however, allotment of all the residential flats prior to 1992 was made on leasehold basis. Objective of DDA to make the allotments on leasehold basis was to keep the rights of property for receiving some recurring income to meet other operational expenses. However, it became difficult for DDA to take over the property on completion of the lease period. Therefore, to avoid increased litigations, in February 1992, it was decided to allow conversion of leasehold property into freehold by execution of conveyance deed.

As per the process, applicants have option to either submit the request online or by visiting to any of the service centre in Delhi. After that their application is received by a diarist who further handovers the file to the dealing assistant. Records at housing department of DDA are still maintained in physical form hence, dealing assistant with the help of record room in charge gets the old file retrieved for further actions. After verifying the documents then it is sent to the accounts officer to calculate the dues. Then a demand letter is sent to the applicant and applicant has to visit the department to clear the dues and submit the receipt of the same. There are also chances that applicant may have to visit multiple times due to requirement of documents or making payment as the existing online mechanism is not in use due to the lack of reliability and lack of fully computerized system. After receiving dues from the applicant file is again sent to the accounts officer to issue the no dues certificate. Then conversion letter and three conversion deed papers are sent to the applicant for the purpose of execution of conveyance deed.

### **Conceptual research framework**

As mentioned above, according to the process of many e-governance projects, citizens are required to be present at the time of service delivery. Though there is facility of filling up the form online, making e-payment and booking of appointment however, on the day of appointment citizens are needed to visit the public organization. During their visit they face a situation, interact with actors and follow a process. It is conceptualised that on the basis of SAP related variables they form perception about service delivery which is expected to have influence on public value of the project. With respect to this conceptual framework is presented below:

As presented above in Figure 2, public value of e-governance projects is measured through 'Quality Service Delivery', 'Competence of Public Organizations' and 'Achievement of Socially Required Outcomes'. 'Quality Service Delivery' consists of 'Quality of information' (Kearns, 2004; Karunasena, 2012), 'System functioning', 'User orientation' and 'Cost savings' (Kearns, 2004). The 'Competence of Public Organizations' refers to the perceptions related to 'Efficiency', 'Openness' and 'Responsiveness' about public organizations (Karunasena, 2012). 'Achievement of Socially Required Outcomes' comprises 'Self-development', 'Trust', 'Equity', 'Citizen participation' and 'Concern for environment' (Kearns, 2004; Karunasena, 2012).

SAP related variables as presented in Figure 2 are 'Improved Situation', 'Capability Level of Actors' and 'Flexibility of Process Workflow'. 'Improved Situation' comprises of "Distance covered to reach the service centre", 'Influence of middleman', 'Queue to avail services', 'Provisions of feedback mechanism', 'Seating arrangements', 'Air conditioned environment', 'Cleanliness' and availability of 'Drinking water' (Agus et al., 2007; DeitY, 2008; Yusoff et al., 2008; Satapathy,

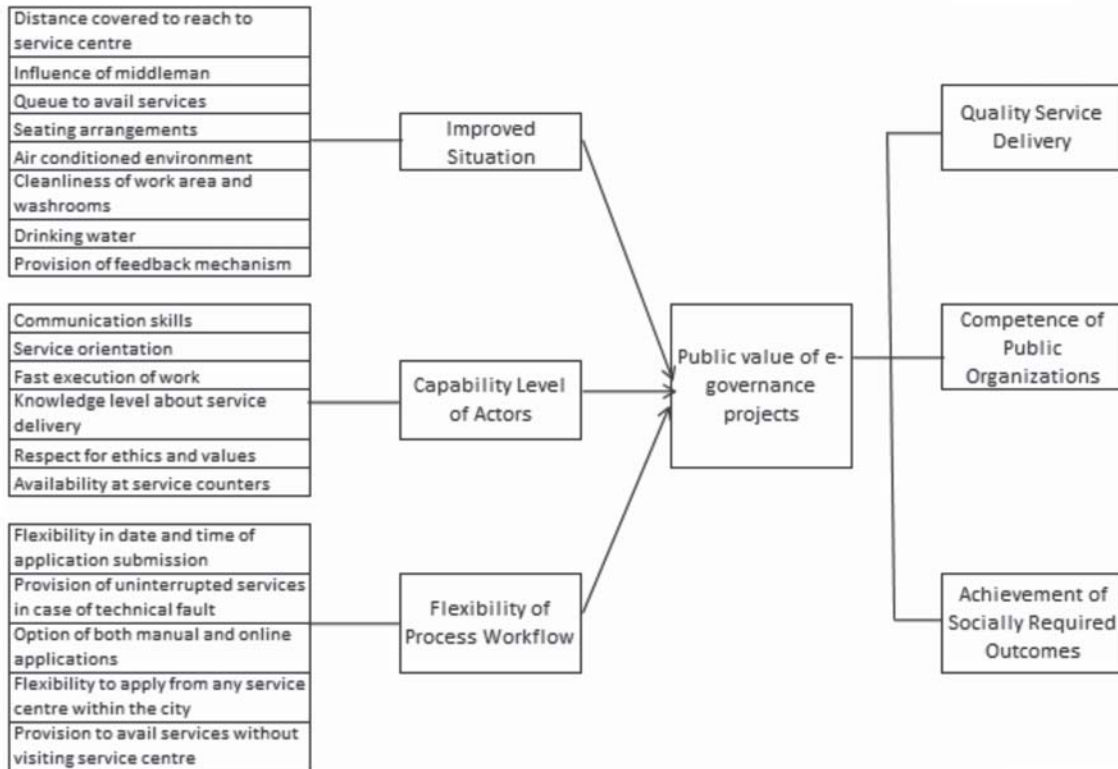


Figure 2: Conceptual Research Framework

2014; Osman et al., 2014). 'Capability Level of Actors' includes 'Communication skills', 'Service orientation of employees', 'Fast execution of work', 'Knowledge level of employees about service delivery', 'Respects for ethics and values' and 'Availability of employees at service counters' (Parasuraman et al., 1988; Cavana et al., 2007; Papadomichelaki and Mentzas, 2012; Bharwani and Jauhari, 2013; Al-Borie and Damanhoury 2013). 'Flexibility of Process Workflow' is measured through 'Flexibility in date and time of application submission', 'Provision of uninterrupted service in case of any technical fault', 'Option of both manual and online applications', 'Flexibility to apply from any service centre within the city' and 'Provision to avail services without visiting to the service centre' (Lovelock, 1983; Parasuraman et al., 1988; Brown, 1990; Kay and Russette, 2000; Bharwani and Jauhari, 2013).

### Conclusion

Benefits of e-governance are well known among various governments of the world however, in the context of developing countries, desired advantages have not been reached to the citizens. Hence, assessment of public organizations becomes crucial for government. Many studies in literature have measured public value of government websites whereas in India, to avail many public services citizens are required to visit the public organizations. Therefore, to measure overall public value of such organizations, it is vital to analyse other variables also which may influence perception of citizens about public value at the time of their visit. Such variables have been presented as SAP related variables in the study which are expected to influence public value of such organizations. Based on conceptual framework it is expected that, planners and implementers equipped with this kind of knowledge would focus to improve the situational,

actor and process related factors. This would further help to achieve increased public value of those organizations.

### Limitation

The article has presented a conceptual framework which is required to be tested by analysing various projects. It is needed to reach to the generalized findings by validating the proposed framework.

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