CONCEPTUAL FRAMEWORK FOR PROJECT MANAGEMENT FOR E-GOVERNANCE SERVICE DEVELOPMENT

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ARTICLE INFO	ABSTRACT
	Purpose: e-Governance service delivery requires efficient IT systems complying with standards, procedures and policies. These IT systems are to be developed, considering the functional and non-functional aspects of systems development, at the same time being agile to changing requirements, in order to give a better experience to citizen. Hence there is a need for a project management framework focusing on process compliance at the same time flexible to meet the new demands of the stakeholders in the e-Governance sector. **Theoretical Framework:** This paper proposes a conceptual framework for e-Governance service development. There is a need to understand the significance of project management in e-governance service development. This conceptual framework identifies three main factors Project Management attribute, Critical Success Factors and Project Management tools under the Project Management factor and the nature of the e-Governance domain, e-Governance service delivery and e-Governance project under the e-Governance factor. **Design/methodology/approach:** The conceptual framework has been proposed after identifying the components that are significant in adoption of Project Management in e-Governance service development based on literature studies in this field of Project Management regarding factors that are critical to project success. **Findings:** The three factors Project Management attribute, Critical Success Factors and Project Management tools identified can be considered to have an influence on e-Governance sector, the service delivery and project success. This needs to be further analyzed through quantitative and qualitative research methods. **Research, Practical and Social Implications:** The model attempts to build a relationship between these factors, which will help practitioners in e-Governance development understand the attributes they need to be aware of, the critical success factors and tools for project management in the e-Governance sector. **Originality/value:** This article is a contribution to the Project Management and e-Governance domain to propose a conceptual framework which is adoptable for practitioners and academicians. Doi: https://doi.org/10.26668/businessreview/2022.v7i4.e754

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ESTRUTURA CONCEITUAL PARA O GERENCIAMENTO DE PROJETOS PARA O DESENVOLVIMENTO DE SERVIÇOS DE E-GOVERNANCE

RESUMO

Objetivo: a prestação de serviços de e-Governança requer sistemas de TI eficientes que cumpram com as normas, procedimentos e políticas. Estes sistemas de TI devem ser desenvolvidos, considerando os aspectos funcionais e não-funcionais do desenvolvimento de sistemas, ao mesmo tempo em que são ágeis às mudanças de requisitos, a fim de dar uma melhor experiência ao cidadão. Daí a necessidade de uma estrutura de gerenciamento de projetos com foco na conformidade de processos, ao mesmo tempo flexível para atender às novas demandas dos interessados no setor de e-Governança.

Estrutura teórica: Este documento propõe uma estrutura conceitual para o desenvolvimento de serviços de e-Governança. Há uma necessidade de entender o significado do gerenciamento de projetos no desenvolvimento de serviços de e-governança. Esta estrutura conceitual identifica três fatores principais atributo de Gerenciamento de Projetos, Fatores Críticos de Sucesso e Ferramentas de Gerenciamento de Projetos sob o fator de Gerenciamento de Projetos e a natureza do domínio de e-Governança, prestação de serviços de e-Governança e projeto de e-Governança sob o fator de e-Governança.

Projeto/metodologia/abordagem: A estrutura conceitual foi proposta após a identificação dos componentes que são significativos na adoção do Gerenciamento de Projetos no desenvolvimento de serviços de e-Governança com base em estudos de literatura neste campo do Gerenciamento de Projetos em relação a fatores que são críticos para o sucesso do projeto.

Conclusões: Os três fatores Atributos do Gerenciamento de Projetos, Fatores Críticos de Sucesso e Ferramentas de Gerenciamento de Projetos identificados podem ser considerados como tendo influência no setor de e-Governança, na prestação de serviços e no sucesso do projeto. Isto precisa ser analisado mais detalhadamente através de métodos de pesquisa quantitativa e qualitativa.

Pesquisa, Implicações Práticas e Sociais: O modelo tenta construir uma relação entre estes fatores, o que ajudará os profissionais no desenvolvimento da e-Governança a compreender os atributos que eles precisam estar cientes, os fatores críticos de sucesso e as ferramentas para o gerenciamento de projetos no setor de e-Governança.

Originalidade/valor: Este artigo é uma contribuição ao Gerenciamento de Projetos e ao domínio da e-Governança para propor uma estrutura conceitual que pode ser adotada por profissionais e acadêmicos.

Palavras-chave: Gerenciamento de Projetos, E-Governança, Metodologias de Gerenciamento de Projetos, Agile, Cascata, Ferramentas de Gerenciamento de Projetos

MARCO CONCEPTUAL DE LA GESTIÓN DE PROYECTOS PARA EL DESARROLLO DE SERVICIOS DE E-GOVERNANCE

RESUMEN

Objetivo: La prestación de servicios de gobernanza electrónica requiere sistemas informáticos eficientes que cumplan las normas, los procedimientos y las políticas. Estos sistemas informáticos deben desarrollarse teniendo en cuenta los aspectos funcionales y no funcionales del desarrollo de sistemas, siendo al mismo tiempo ágiles ante los requisitos cambiantes, con el fin de ofrecer una mejor experiencia al ciudadano. Por lo tanto, es necesario un marco de gestión de proyectos que se centre en el cumplimiento de los procesos y que, al mismo tiempo, sea flexible para satisfacer las nuevas demandas de las partes interesadas en el sector de la gobernanza electrónica.

Marco teórico: Este documento propone un marco conceptual para el desarrollo de servicios de gobernanza electrónica. Es necesario comprender la importancia de la gestión de proyectos en el desarrollo de servicios de gobernanza electrónica. Este marco conceptual identifica tres factores principales: el atributo de gestión de proyectos, los factores críticos de éxito y las herramientas de gestión de proyectos en el factor de gestión de proyectos, y la naturaleza del ámbito de la gobernanza electrónica, la prestación de servicios de gobernanza electrónica y el proyecto de gobernanza electrónica en el factor de gobernanza electrónica.

Diseño/metodología/enfoque: El marco conceptual se ha propuesto después de identificar los componentes que son significativos en la adopción de la Gestión de Proyectos en el desarrollo de servicios de e-Gobernanza basados en estudios de literatura en este campo de la Gestión de Proyectos en relación con los factores que son críticos para el éxito del proyecto.

Resultados: Se puede considerar que los tres factores atributo de la gestión de proyectos, los factores críticos de éxito y las herramientas de gestión de proyectos identificados influyen en el sector de la gobernanza electrónica, la prestación de servicios y el éxito del proyecto. Esto debe analizarse más a fondo mediante métodos de investigación cuantitativos y cualitativos.

Investigación, implicaciones prácticas y sociales: El modelo intenta establecer una relación entre estos factores, lo que ayudará a los profesionales del desarrollo de la gobernanza electrónica a comprender los atributos que deben conocer, los factores críticos de éxito y las herramientas para la gestión de proyectos en el sector de la gobernanza electrónica.

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Originalidad/valor: Este artículo es una contribución al ámbito de la gestión de proyectos y la gobernanza electrónica al proponer un marco conceptual que puede ser adoptado por profesionales y académicos.

Palabras clave: Gestión de proyectos, E-Gobernanza, Metodologías de gestión de proyectos, Agile, Waterfall, Herramientas de gestión de proyectos.

INTRODUCTION

E-Governance services helps to build citizen's trust and reliability in Government services. e-Governance and m- Governance help to provide better facilities to citizens through e- Services. The citizens' demand of cost effectiveness and timely services has accelerated the operations of e-Governance (Sahoo, Pattnaik, Behera, & Samanta, 2021). Most of the nations and Government organizations are following strategies of digital government through innovative practices with the start of Covid 19 pandemic according to the 2020 edition of the UN E-Government Survey (Department of Economic and Social Affairs, 2020). The EU (European Commission) stated on their website, ec.europa.eu; restricting citizens from leaving their homes to interact with government administrations and has quoted that e-government solutions become vital when in person interactions are difficult. Considering the relevance of e-governance services all implementation and integration of all e-government solutions should be in a uniform manner with appropriate connections for collaboration and information processing. This will facilitate to optimize access of citizens to public services and information. This will help in improving the relationship between public and government authorities and increase the satisfaction of the citizens due to the access to all information which is public, thereby increasing the citizen's participation in the governance system (Sorin Burlacu, 2021). Governments today are on pressure to deliver governance and services amid social distancing, virtual learning, and demands from the marginalized groups who may not be able to work in a remote manner. Livelihood, life and protection of all need to be guaranteed virtually and most nations will struggle to provide these to their citizens. Citizens immediately turn to their governments for protection and assistance during times of crisis (Forum, 2020).

The aim of this research work is to understand the factors influencing implementation of a project management framework in e-Governance and thereby propose a conceptual framework for the project management in e-governance. The work has been done mainly on the basis on previous studies in project management in e-governance domain. The conceptual framework proposed has attempted to establish a relationship between project management related parameters such as Project Management attributes, Critical success factors with respect to Project management adoption, and Project Management tools and e-Governance related parameters such as e-Governance sector,   e-Governance Service delivery and e-Governance

project which are detailed in this paper. In addition to this there are many controlling and external factors that influence implementation of Project Management framework implementation. Establishing a relationship between these factors will help to serve as a guide to practitioners in e-Governance service development in to implement a robust Project management framework.

LITERATURE REVIEW

EGovernance

Electronic Governance or e-Governance can be considered as a movement toward Government online in delivering their services and programs to citizens and businesses and in providing information and interacting with the citizens. e-Governance includes vision, strategy, planning, leadership and resources within a framework. The definition of e-Governance means using information technology in enhancing access to and delivery of services of the government for the benefit of citizens, business organizations and employees (Kumar T. V., 2015). All developed countries of the world including USA, the UK, Canada, Singapore, Australia have advanced systems in the field of e-governance. Developing nations such as India, Brazil, Philippines have also improved in implementing e-governance applications (Prabhu, 2012). e-Government helps in improving the value chain of Government organizations by reducing the input resources required, reducing the throughput time, increasing the output of the initiatives and improving the outcomes. e-Governance initiatives started with creation of a web-based presence, which later developed into information stage, then interaction phase, and then into transaction stage. The fourth stage is the transformation stage where all information systems are integrated and citizens can avail Government to Citizen (G2C) as well as Government to Business (G2B) at a single virtual counter (Kettani & Moulin, 2015). e-Government is about bringing transformation to the quality of public services, not mere introduction of technology. To create the desired outcome, e-government should be conceptualized and implemented in holistic manner namely people, process, technology and resources (Chabbra & Kumar, 2009).

In the recent years, e-Governance has taken a deeper root in India. Mechanisms and processes of e-governance have been developed to create a more citizen centric governance in the nation through introduction of multi-channel single window delivery system by channelizing all forms of services of the government in the most effective manner. The aim of e-Government is to make Government services, more efficient, convenient and transparent at local level (Manoharan & Holzer, 2012). Implementing e-Governance Services will result in reducing operational and management costs, increases transparency, and thereby enabling good

governance (Shareef, Archer, & Dutta, 2012). The basic objective of e-governance is improving public services by using common set of standards and performance measures. Trust from citizens should improve to fully utilize information and communication technology, measure the results, improve performance, unify services and increase the cyber security (Milakovich, 2021). In order to enhance the citizens' perception of the adoption of e-Governance services, facilitating conditions should be improved and benefits of promotions of such services should be done more aggressively reducing the barriers to its adoption (Agarwal & Mehrotra, 2017). E-Government is a tool that caters to the need of the citizen, businesses and government to decrease rate of providing facilities and to refine the quality of services and increase the speed in delivery of facilities. It offers government products and services, exchange of information, communications, transactions and incorporation of systems (Singh & Sahu, 2018).

According to different surveys carried across different periods of time it has been noted that e-Government projects have been failures, particularly in developing countries. A major number of e-Government projects have failed totally or partially. About 35% of e-Governance projects were failed either because implementation was not done or was abandoned immediately after Go-Live. Around 50% of projects were partial failures since the defined objectives were not achieved or these projects were success in the initial phase and later failed. It was noted that only about 15% were successful where the stakeholders were benefitted and there were no adverse results. e-Government is not just a technological initiative unlike usual software projects due to the citizen centricity nature of its services. Main challenges affecting the success of e-Government project can be due to political, administrative, industry, end user and citizen level reasons. Successful implementation of e-governance projects depends on the project management approach, methods and tools, Monitoring and evaluation of the project, scope definition and management and assessing and mitigating the project risks (NISG, 2011).

Project Management

According to Project Management Body of Knowledge (PMBOK) by Project Management Institute (PMI), PMBOK project is a temporary endeavor undertaken to create a unique product or service. A methodology can be considered as a system of practices, techniques, procedures and rules that are used by those who work in a discipline. Project management methodologies are usually developed by experts within the organization can be purchased from vendors or obtained from professional associations or acquired from Government agencies. The right project management process, inputs, tools and lifecycle phases should be chosen to manage the projects within the organization. This selection procedure is

called tailoring project management for the project. Tailoring is needed, because each project is unique and not every process, tools, techniques or output identified in the popular project management methodologies is needed for every project. Tailoring the project management should address mainly the scope, schedule, cost, resources, quality and risk. The project environment, organizational culture, stakeholder needs and similar variables. The various levels of governance should also be considered (Institute, 2017).

Project Management Methodologies

Project Management Body of Knowledge (PMBOK), published by PMI is one of the worldwide accepted Project management frameworks. Another framework adopted as the Project management standard by the UK Government is the Projects in Controlled Environments (PRINCE2) developed by the Organization of Government Commerce (OGC), UK. International Project Management Association (IPMA) is another methodology used for Project Management. Organizations such as World Bank, DFID, AusAiD use the Logical Framework Approach which was initially developed by the United States Agency for International Development (USAID) (NISG, 2011).[14] Different project management methodologies are adopted for different projects, customization of these methodologies could also be more suitable for managing projects. Influence of technology and need for better service management has created challenges in ICT and software development projects. Therefore standard PM methodologies including agile may need to be enhanced or tailored in management of IT projects (Singh & Lano, 2014).
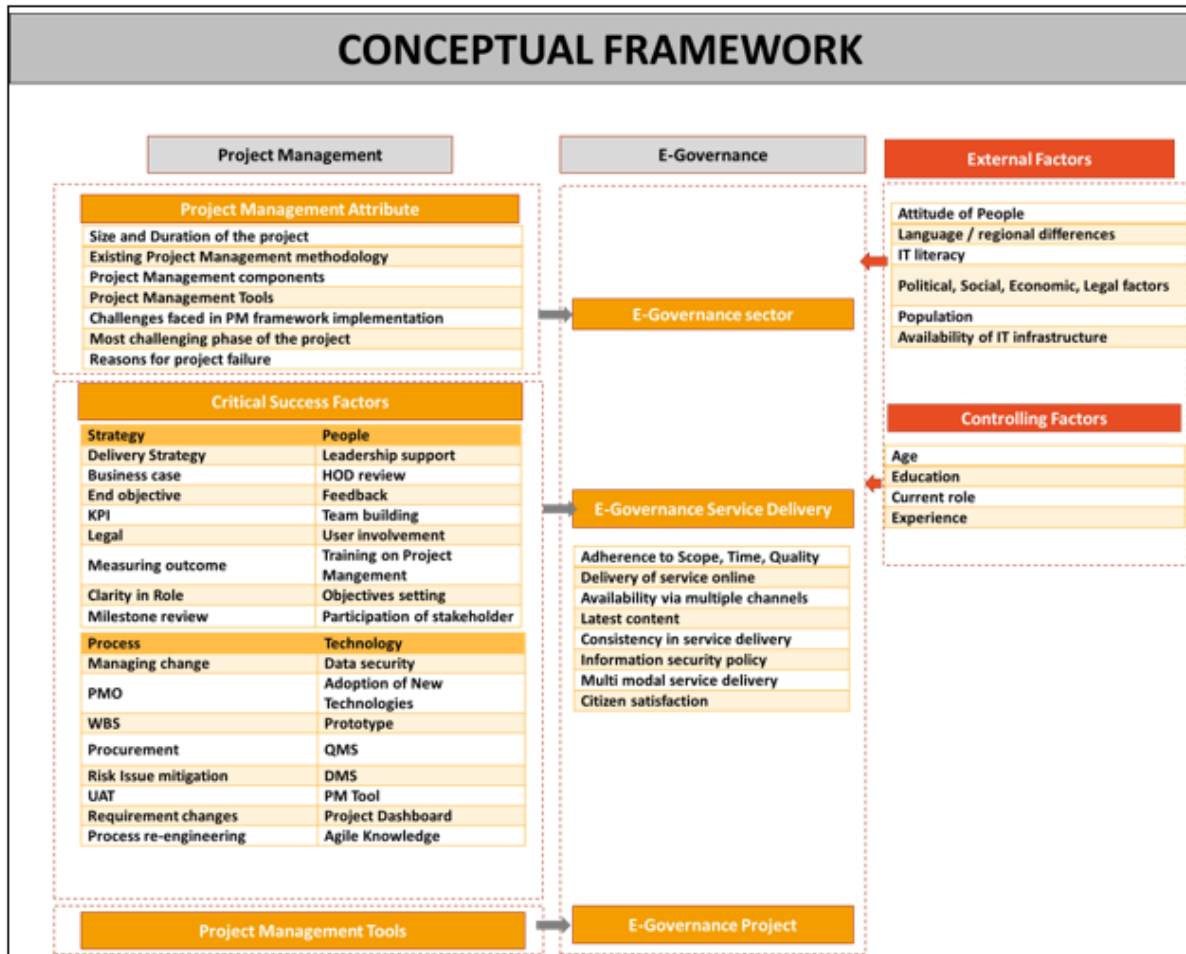
Project Management in e-Governance

E-Governance projects are large scale IT initiatives requiring long term commitments based on right planning and finance availability. Development and implementation of these IT systems for effective delivery of government services online is a key priority of e-governance in many countries. This needs structured project management methodologies, tools and platforms for development of good e-Governance system (Mahmood, 2013). Project management for e-Governance involves multiple departments, complex policies and procedures, adhering to regulations and widely spread data and information. There is no access to the complete knowledge database for implementation of the project. There is no holistic approach to manage such wide spread Government data and retrieving the data from various databases (Association, 2016).

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Traditional methods of systems development such as waterfall model were adopted in e-Governance projects earlier (Simonofski, Ayed, Vanderose, & Snoeck, 2018). Projects in this sector are often faced with unclear requirements and poor communication. Adoption of agile project management methods in e-government systems implementation can facilitate better user orientation enabling continuous improvement in delivery of services to citizens (Looks, Fangmann, Thomaschewski, & Schön , 2021). e-Government projects require detailed processes, streamlining of services, access to agile methods, adoption of robust technology and awareness and trust (Joshi & Islam, 2018). Project management methodologies often focus on procedures and processes rather than the outcome and accountability. None of the Project Management methodologies provide the e-Government project manager with the tools to address the intrinsic problems of e-Government project implementation. Enhanced project management methodologies should focus on the results, with the Project team being accountable for the project success or failure (Bwalya, 2014). There should be cultural shift from government orientation citizen orientation for e-government for meeting the needs of the users. A key component of evaluating e-government framework is the inclusion of citizens in project management (Reddick, April, 2010).

CONCEPTUAL FRAMEWORK

The conceptual framework for Project Management for e-Governance comprises has been proposed based on the literature studies done in the field of e-governance and project management. The proposed framework comprises of two components Project Management and e-Governance. The Project management component comprises of three sub components, 1) Project Management Characteristics 2) Critical Success Factors and 3) Project Management Tools used for managing the project. The e-Governance component also comprises of three sub components 1) e-Governance Sector 2) e-Governance service delivery and 3) e-Governance project. In addition to this there are two components 1) the external factors and 2) Controlling Factors.

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Fig. 1. Conceptual Framework for Project Management for e-Governance

Project Management

Project Management Attribute

The Project Management Attributes are the factors which were identified based on that influence the e-Governance projects. These were attributes were identified and grouped under the Project Attribute factor after extensive review of the previous studies in project management. These are further subdivided into sub factors as listed below.

1) **Size and Duration of the project** – Project size indicates the value of the project or the cost involved for implementing the projects in the sector. The Duration of the project means the time from Conceptualization to Go-live.

2) **Existing Project Management Methodology** – Different types of project management methodologies are used in e-Governance. This includes Traditional models such Software Development Life Cycle(SDLC), Waterfall, PMBOK, PRINCE2 and new methodologies such as Agile, Scrum and Other in-house methodologies. There is a need to understand the existing project management practices and methodologies used in the e-Governance service development.

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3) **Project management components –** Project management components refer to the Project Management methodology, PM tools and templates, Project Management Office, Project Management Software and End to end project management. These components are to be recognized by the Organization as the 'must have' for implementation of the Project Management Framework within the organization

4) **Project Management Tools –** Project Management tools may be defined by the organization as a part of their Project Management framework, but the extent of the usage of these tools in real implementation needs to be considered. Different methodologies offer different types of tools and adopting all of them would be cumbersome for the project manager. Hence it is the decision of the project manager to adopt the type of tools depending on the nature of the project under execution.

5) **Challenges in the Project Management Framework Implementation -** The Project Manager need to consider the challenges that can arise while implementing the Project Management framework within the organization. This mostly depends on the sector in which the project is being implemented. The most common challenges identified based on past studies in the e-Governance sector includes Technology changes, Delay in adoption of new practices/ processes, Lack of technical and Project Management skills, Absence of project management from beginning to end of the project. Most of the Project Management procedures are abandoned half way during the course of the project, Lack of compliance to requirements, Lack of Management Information systems for reporting the project progress, Absence of a Governance framework for effective decision making during the course of the project. Absence of top management support, reference material for past projects, legal decisions and support from the sponsoring department.

6) **Most Challenging Phase of the project –** Each project goes through five phases, Initiate, Plan, Execute, Monitor and Control, Close. The challenges occurring in different phases of the project may be different based on the sector, the people involved, the necessary compliance to be obtained, etc.

7) **Reasons for Project Failure -**The project manager should consider the reasons for project failure some of which can be internal due to the characteristics of the organization, the characteristics of the project, or the domain in which the project is being executed. A review of past studies in project management in e-governance, has helped to identify some of the reasons for e-Governance project management failure. This include, Changes in Scope, Schedule and Cost, Lack of steering committee

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meetings for monitoring the project progress, absence of processes and tools for end to end project management, and changing requirements from time to time also found to be reasons for project failure.

Critical Success Factors for Adoption of Project Management Framework

Literature studies were conducted to understand the most commonly adopted Project Management practices for adoption of a Project Management framework. These practices were then grouped under four major Critical Success Factors, mainly Strategy, People, Process and Technology (Chandrachoodan, Palappan, & Radhika, 2021).

1. **Strategy** - This includes establishing a project delivery strategy, development of a business case, defining the end objectives, setting Key Performance Indicators (KPIs), considering the legal aspects, measuring the project outcome, setting clear roles for project team members and review of project milestones

2. **People** - This include understanding the people related success factors for implementation of a project management framework. Support from Top management for adoption of the framework, Review of project progress by Head of the Institution (HOD), Timely feedback to project team, Involvement of end users in the development, Training on project management, setting objectives for individual team member, and participation of different levels of stakeholders will ensure effective project management.

3. **Process** – Setting of processes for change management, establishment of a Project Management Organization for the project, Setting project tasks in a Work Break down Structure model, establishing procurement processes, setting process for risk and issue identification and mitigation, Setting a User Acceptance Test process, Additional Requirements management through Change requests, and setting new business and organizational processes through process re-engineering.

4. **Technology** – While implementing an IT solution, technology plays a significant role in the success of the project. Security aspects of the data to be handled through the proposed solution, adopting new technologies for system development, development of prototype, establishment of a Quality Management Software, Document Management Software and Project Management Software will help to ensure compliance and provide reference to past data. Analytics based Project dashboards will help to monitor the project progress as well as predictions about the future performance of the project. Knowledge about Agile technologies also helps in implementation of a

Project Management Framework for the e-Governance sector.

Project Management Tools

There is identify the most essential project management tools required for e-Governance projects, project management tools are to be categorized based on the phase of the project, enabling project managers to understand the specific tools that can be used in each project phase. This should combine both Traditional and Agile tools, identifying the most relevant ones for the project. A list of applicable project management tools covering both traditional and agile methodologies are to be identified.

E-Governance

E-Governance sector

Delivery of e-Governance services to citizens is based on the following dimensions, delivery of services digitally and through single point of contact via different channels, with only onetime information input to the authorities by the citizens. Inclusiveness and stakeholder participation, free movement of data, ensuring trust and security should be the objectives of e-Government implementation (European Commission, 2021). In order to achieve these objectives, the projects should be executed considering the characteristics of the sector. Studies have shown that the projects in the e-Governance sector are found to be of longer duration and project size was same as that of private sector projects. The challenges related to implementation are more prominent in the e-Governance sector, with lesser acceptance for Project Management methodologies. There is a lesser adoption of project management tools and techniques in execution of e-Governance projects (Chandrachooodan, Radhika, & Palappan, 2021).

E-Governance service delivery

The National e-Governance Service Delivery Assessment (NeSDA 2021) evaluates e-Governance services delivered by various states in India based on seven parameters-Accessibility, Content Availability, Ease of Use, Information Security & Privacy, End-service Delivery, Integrated Service Delivery and Status & Request Tracking (DARPG, 2021). With respect to delivery of e-governance services, some of the indicators are project delivery are adherence to scope, time and quality, delivery of service online, availability via multiple channels, latest content available online for the citizens, consistency in service delivery, availability via multiple channels, consistency in service delivery, adherence to information security policy, service delivery via multimode and satisfaction of citizens.

E-Governance project

This sub factor indicates the e-Governance project execution, the way in which the project is executed. Execution of project indicates the compliance to the policies and regulations, adherence to the scope, time, cost and quality parameters, meeting the Key Performance Indicators by following the project management process, thereby ensuring project success.

External Factors

In addition there are external factors that influence the success of e-governance services. This includes Attitude of people, Language and Regional differences, IT literacy of the population, Political, social, economic and legal factors, population and availability of IT infrastructure. These factors have an influence in the effectiveness of e-governance service delivery, however their impact is not considered in the current research.

Controlling factors

Controlling factors include Age, Education, Role and experience of the staff involved in the development of e-governance applications. These factors affect the team performance and their deliverables, and hence have an influence on the project management framework.

DISCUSSION

The conceptual framework has been structured considered three levels of Project Management framework implementation. One, Project Management Attributes affecting the e-Governance domain or sector, second the Critical Success Factors with respect to Project Management framework implementation which influence Project Management framework at an organization level and third, the Project Management tools which influence at an individual project level.

Understanding the Project Management Attribute influence the project success in the e-Governance sector. The size or the project value and the duration of the project have an influence on the Project Management framework to be adopted in the e-Governance sector. The knowledge of the existing project management methodology will help to understand the drawback of the present system of project management and the improvements that can enhance the Project management can be suggested. The Project management components defined in this paper, such as defining the Project Management methodology that can be used in the sector, decision to adopt PM tools and templates, setting up of Project Management Office for

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monitoring of projects, adoption of Project Management Software to aid the project tracking and decision to follow project management procedures strictly from beginning to end of the project will help to create a Project management culture within the organization and the sector. There is a variety of Project management and tools are available for various Project management methodologies and for different phases of the project. Management level decisions are to be taken to identify the tools to be used for each phase and ensure compliance in every phase of the project. There is a need to understand the challenges faced in implementation of the Project Management framework and the general reasons for project failure in the sector. Understanding these attributes of project management and adopting a feasible project management methodology will help to ensure success of project management in the sector in general.

There is a need to understand the Critical Success Factors with respect to Project management framework implementation.ie. various practices in project management need to be identified which are relevant for project success in the e-Governance sector. According to literature review 32 project management practices could be identified and these has been listed under four heads of Critical Success factors named as Strategy, People, Process and Technology. The practices listed under the Strategy success factor indicates the practices that are aligned towards the strategy of Project management framework implementation. Similarly, people related success factors define the practices that help to build the project team, or the human factors with respect to Project Management framework implementation. Process related factors are to be implemented at the organization level which could aid the Project Management framework implementation. The fourth one, Technology success factors aid the Project management framework implementation through right adoption of technology for implementation of Project management framework. This includes commercial software available in the market that could strengthen the project management implementation. All effect of these four critical success factors are viewed from an e-governance service delivery level, how these factors affect the various aspects of service delivery.

Similar to the project management practices, a number of project management tools are available based on the Project management methodology implemented. The traditional methods such as PMBOK, PRINCE2, Waterfall etc. has defined set of tools and templates for tracking project. A few them include project charter, System Requirements Specification document, Functional Requirements specification document, Risk –Issue Register, Lessons learned document, etc. Modern methods such as Agile and scrum uses artifacts like Product backlog, Sprint backlog, Sprint Burn down chart, etc. Considering the nature of e-Governance

sector where documentation and agility is equally important, there is a need to mix both traditional and agile tools to achieve the best results of project management implementation. The tools applicable across projects in the e-Governance sector needs to be identified and listed, which can be adopted at an individual e-Governance project level. This will help to define the specific tools which are effective for monitoring the project progress, at the same time helping the project manager track the project progress with the most essential tools for project management. This will also help to maintain a history of the previous projects, working as a reference for implementation of future projects in the e-Governance sector.

In addition to these factors, the controlling factors i.e. are the age, education; role and experience in e-governance service development affect adoption of a suitable project management framework. The acceptance by the team and compliance to the framework depends on the team and individual which affect the success of implementation of a Project Management framework, there by affecting the delivery of services to citizens. The external factors, listed in the framework are belonging to the external environment, also influence the Project management framework implementation.

CONCLUSION

COVID-19 pandemic has not only made us realize the significance of information technology, but also accelerated the need for an efficient, inclusive as well as accountable government. Digital governments can play a central role in communication and collaboration between policy makers and societies during the COVID-19 pandemic. Smooth implementation of e-services requires a robust project management approach, addressing the challenges in eGovernment sector. Our policymakers need to further adopt the future of digital government, even after this crisis. Technologies such as virtualization, cloud computing, virtualisation and adoption of free and open source software in design and deployment of e-governance will result in reducing the total costs associated with both hardware and software. Success of any project in the e-governance sector will depend upon its use by the beneficiary group and hence the accessibility of these services needs to be improved effectively (Kumar, Kumar, & Kumar, 2013). Services are to be delivered to citizens within shorter timeframes, accessible across multi-channels and should be easily available to citizens of all strata of the society.

Implementation of IT systems in Government requires compliance to requirements, documentation as well as there is a need to be agile and hence e-Governance projects are different from IT implementations in other sectors. Hence managing such projects require specific project management practices understanding the nature of this domain. There is no one

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size fits all solution when it comes to e-Governance project management, it should always be tailored to the needs of the project. Even though there had been many established project management guidelines adopted by Governments with inputs from standards such as PMI, PRINCE2, etc., there is an absence of a practical methodology, easily adaptable for projects. Lack of project management tools, absence of proper planning, lack of knowledge in project management concepts, all contribute to poor project performance. A standardized Project management framework is not followed in e-Governance projects. Resources are overloaded and sometimes tasks are not assigned to the team properly. Decision making process is left to departments and line ministries and funding wholly depends on them. There is no provisioning of Project Management dashboard for collaboration and there is inadequate tracking of how project is being implemented causing delays (Malik, Dhillon, & Verma, 2014). Baseline data is not captured during the initiation phase of the project with no benchmarking throughout the project. Monitoring these IT programs require understanding of the domain, the nature of projects in the domain, the challenges that may be faced during implementation and the reasons that can result in project failure. A suitable Project Management Framework need to be defined and accepted at a domain level, at an organization level and the tools defined in this framework need to be implemented at a project level.

REFERENCES

1   Agarwal, R., & Mehrotra, A. (2017). E-Government Services in an Emerging Economy: A Citizen's Perspective. Amity Journal of Corporate Governance, 2(1), 49-62.

2   Association, I. R. (2016). Project Management: Concepts, Methodologies, Tools and Applications: Concepts, Methodologies, Tools and Applications (Vol. 3). IGI Global.

3   Bwalya, K. J. (2014). Technology Development and Platform Enhancements for Successful Global e-Government Design. IGI Global.

4   Chabbra, S., & Kumar, M. (2009). Integrating E-business Models for Government Solutions Citizen-centric Service Oriented Methodologies and Processes. New York: Information Science Reference.

5   Chandrachoodan, G., Palappan, R., & Radhika, R. (2021). Impact of Project Management in Delivery of eGovernance Services. Review of International Geographical Education Online, 10(11), 1204-1218.

6   Chandrachooodan, G., Radhika, R., & Palappan, R. R. (2021). Adoption of Project Management Methodology and Challenges Faced: A Comparative Analysis between Government IT Sector and IT Organisations in the Corporate Sector in Kerala. Webology, 18(Special Issue), 939-961.

7   DARPG. (2021). National eGovernance Service Delivery Assessment. Department of Administrative Reforms & Public Grievances.

8   Department of Economic and Social Affairs, U. (2020). COVID-19 pushes more government activities online despite persisting digital divide. United Nations. New York.

9   European Commission. (2021). e-Government Benchmark 2021. European Commission Directorate-General for Communication Networks. Brussels: European Commission.

10   Forum, W. E. (2020). Challenges and Opportunities in the Post-COVID-19 World. Insight Report, Geneva.

11   Institute, P. M. (2017). A Guide to the Project Management Body of Knowledge (Sixth ed.). Pennsylvania: Project Management Institute, Inc.

12   Joshi, P. R., & Islam, S. (2018). E-Government Maturity Model for Sustainable E-Government Services from the Perspective of Developing Countries. Information and Communications Technologies for Sustainbility, 10(6), 1-28.

13   Kettani, D., & Moulin, B. (2015). E-Government for Good Governance in Developing Countries:Empirical Evidence from the EFez Project. Ottawa, Canada: Anthem Press.

14   Kumar, P., Kumar, D., & Kumar, N. (2013). Improved Service Delivery and Cost Effective Framework for e-Governance in India. International Journal of Computer Applications, 74(3), 20-23.

15   Kumar, T. V. (2015). E-Governance for Smart Cities. Singapore: Springer.

16   Looks, H., Fangmann, J., Thomaschewski, J., & Schön , E.-M. (2021). Towards a Process Model for Agile Transformation in E-government Projects. Journal of Information Systems Engineering and Management, 6(1), 1-7.

17   Mahmood, Z. (2013). Developing E-government Projects:Frameworks and Methodologies. IGI Global.

18   Malik, P., Dhillon, P., & Verma, P. (2014). Challenges and Future Prospects for e-Governance in India. International Journal of Science, Engineering and Technology Research (IJSETR), 3(7).

19   Manoharan, A., & Holzer, M. (2012). Active Citizen Participation in E-government A Global Perspective. Hershey, USA: Information Science Reference.

20   Milakovich, M. E. (2021). Digital Governance :Applying Advanced Technologies to Improve Public Service (Second ed.). Oxon: Taylor & Francis.

21   NISG, P. (2011). Project Management in e-Governance : Issues & Challenges in navigating to the "New Normal". Grand Thorton Advisory Private Limited.

22   Prabhu, C. (2012). e-Governance : Concepts and Case Studies (Second ed.). New Delhi: PHI Learning.

23   Reddick, C. G. (April, 2010). Citizens and E-Government: Evaluating Policy and Management. Information Science Reference.

24   Sahoo, B., Pattnaik, P. K., Behera, R. N., & Samanta, S. R. (2021). Strategies for E-Service, E-Governance, and Cybersecurity -Challenges and Solutions for Efficiency and Sustainability (First ed.). Apple Academic Press.

25   Shareef, M. A., Archer, N., & Dutta, S. (2012). E-government Service Maturity and Development:Cultural, Organizational and Technological Perspectives. Information Science Reference.

26   Simonofski, A., Ayed, H., Vanderose, B., & Snoeck, M. (2018). From Traditional to Agile E-Government:Service Development: Starting from Practitioners' Challenges. Twenty-fourth Americas Conference on Information Systems, (pp. 1-11). New Orleans.

27   Singh, M., & Sahu, G. P. (2018, January). Study of e-governance implementation: a literature. International Journal of Electronic Governance, 10.

28   Singh, R., & Lano, D. (2014). Literature Survey of previous research work in Models and Methodologies in Project Management. International Journal of Advanced Computer Science and Applications, 5(9), 107-122.

29   Sorin Burlacu, S. R. (2021). E-government in the Era of Globalization andthe Health Crisis caused by the Covid-19 Pandemic, between Standards and Innovation. SHS Web of Conferences 92 Globalization and its Socio-Economic Consequences 2020, (pp. 1-8).

30   Gnangnon, S. K. (2021). Wages in the Manufacturing Sector and Remittances Outflows from High-Income Countries. Remittances Review, 6(2), 115-132.

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