

eGovernment Success Factors: Acceleration & Enhancement of Digital Public Services in Ethiopian Federal Institutions

Binyam Fitamo

HiLCoE School of Computer Science & Technology
Software Engineering Programme Addis Ababa, Ethiopia
binyamfitamo7@gmail.com

Mesfin Kifle

HiLCoE School of Computer Science & Technology
Addis Ababa, Ethiopia
kiflemestir95@gmail.com

Abstract

eGovernment is the use of information technology to enable and improve the efficiency with which government services are provided to citizens, employees, businesses and agencies. The rapid advancement of information technology and the increasing demand for efficient and effective public services have prompted governments worldwide to adopt eGovernment initiatives. However, the successful implementation of such initiatives requires a thorough understanding of the factors that drive their success and the challenges they may encounter. This research seeks to contribute to the existing knowledge in the field of eGovernment implementation.

This research contributes to the existing body of knowledge by providing a comprehensive analysis of the key success factors, challenges, and barriers in eGovernment implementation. It offers practical recommendations for policymakers, project managers, and stakeholders involved in the planning and execution of eGovernment initiatives. The research recommends that organizations focus on enhancing their readiness for eGovernment implementation, ensuring active stakeholder engagement, developing robust technological infrastructure, establishing effective policy and legal frameworks, and implementing change management strategies.

Keywords: eGovernment, Information Technology, Success Factor

1. Introduction

In its theoretical definition eGovernment is the delivery of services using web technologies to reform public administration [3], [5]. The principle behind implementing of eGovernment is bringing the benefits of computers and web technology into government's administrative processes and operations. One of the driving forces of this phenomenon is the implementation of eService. eService can be described as one of the components of eGovernment. The delivery of government services to citizens is majorly

facilitated via implementation of web technologies [6]. Placing administrative services on web portals and making the Internet as the main communication channel to maximize service coverage is what most governments do in their eGovernment implementation [2], [7].

The recipients of these services are not only individual citizens but also business entities of all scale, NGOs, religious institutions, and other government institutions within the state. The service and recipients of it are different across the spectrum. The technicalities and rules of the business process vary based on the service and recipients as well [4].

Literatures suggest distinction between low & high-level success factors when embarking on eService digitization [1]. Müller's article makes the distinction between the stages of eGovernment as low level and high level. The low level being the initial stages of Lee's eGovernance maturity model; the presenting and assimilating stages. The high level being reforming, morphing and eGovernance stages. These success factors are categorized based on who the actor would be to enforce them or be the participant.

The objective of this study is to identify and analyze the success factors that significantly influence the implementation of eGovernment initiatives. By examining these factors, the study aims to provide valuable insights into the critical aspects that contribute to the success or failure of eGovernment projects. Ultimately, this study contributes to the advancement and success of digital government transformation efforts.

The successful implementation of eGovernment initiatives has the potential to transform public service delivery, enhance government efficiency, and improve citizen satisfaction. By identifying the success factors that drive eGovernment implementation, governments can allocate resources effectively, design appropriate strategies, and overcome common challenges, leading to successful and sustainable eGovernment initiatives. The findings inform government decision-makers, policymakers, and practitioners on strategies for improving eGovernment initiatives and maximizing their impact on public service delivery.

The following questions are framed to address the research.

1. What are the key success factors that drive the implementation of eGovernment initiatives?
2. How do organizational readiness, stakeholder engagement, technological infrastructure, policy and legal frameworks, and change management influence the success of eGovernment implementation?
3. What are the common challenges and barriers encountered during eGovernment implementation, and how can they be effectively addressed?

2. Related Work

According to OECD eGovernment is “The use of information and communication technologies, and particularly the Internet, as a tool to achieve better government”. This definition emphasizes that governments can achieve better performance by utilizing technology [9]. Tan and Benbasat define eGovernment as “... the application of information and communication technology to automate interactive exchanges between public institutions and their external stakeholders by redeploying conventional public services through the Internet” [10]. Such explanation covers the technological aspect, the public service business process, and the transformation of manual system in to software based services.

Researches find it vital to find out the current stage of eGovernment of a particular country before diving further in their studies. To identify the stages of eGovernment Gartner Group’s model and Layne & Lee’s developmental stages of eGovernment is usually used. Gartner Group is a management consulting firm that researches and publish their work on various topics for private corporations and government agencies. In 2017 Gartner Group formulated the “Gartner Digital Government Maturity Model 2.0”. It consists “Initial (eGovernment), Developing (Open), Defined: Data centric, Managed: Fully Digital, and Optimizing: Smart [11]. This model makes more emphasis on “open data” than their previous model only consisting of four stages.

The previous model of Gartner Group’s eGovernment stages are Presence, Interaction, Transaction, and Transformation [12]. These stage have their own unique character.

- a. **Presence:** this stage is characterized by government institutions having an online presence by displaying basic information about themselves and the services they provide usually via web-portals.
- b. **Interaction:** this stage is where government websites add features that allows users to download forms to fill out or make email communication as information exchange mechanism.
- c. **Transaction:** on these stage citizens can receive full public service from the government agency online. Users can apply to get official documents, renew licenses, and make payments.
- d. **Transformation:** this stage is characterized where by eGovernment systems integrate their data and system enabling a seamless information exchange between different government agencies.

In the literature review of Muller & Skau the development model of eGovernment by Lee is subdivided into two. The high and low levels; characterized by the organizational changes needed to achieve them [1]. The higher levels require more changes in the

organization than the low level eGovernment stages. The literature review places 'Presenting' & 'Assimilating' at low level and 'Reforming', 'Morphing' & 'eGovernance' at high level stages. The review also infers low level stages focuses on incremental ICT enabled service provision while high level stages demand service reformation.

2.1 Critical Success Factor

Identifying CSFs is of paramount importance to avoid the pitfalls and challenges that often lead to project failure. CSFs encompass a range of factors that are essential for achieving desired outcomes and maximizing the benefits of eGovernment initiatives [16]. By identifying these factors, governments and policymakers can make informed decisions, allocate resources effectively, and implement strategies that increase the likelihood of successful eGovernment implementation.

In developing countries, where resources and infrastructure may be limited, the identification and utilization of CSFs become even more critical [17]. The unique socio-economic and technological contexts in these countries necessitate a comprehensive understanding of the specific factors that influence the successful implementation of eGovernment services. By acknowledging and addressing these factors, developing countries can overcome challenges and unlock the potential benefits of eGovernment for their citizens.

The critical success factors (CSFs) for eGovernment encompass the delivery of excellent service, fostering good communication between government organization and users, ensuring the availability of quality human resources, and implementing a user-inclusive information system [18].

2.2 Information System Success Model

The Information Systems Success Model (ISSM) provides a theoretical framework for understanding the factors that contribute to the success of information systems, including eGovernment implementation. The ISSM focuses on the user's perspective and identifies key dimensions of system success, such as system quality, information quality, and user satisfaction [19].

2.3 Stakeholder Theory

Stakeholder theory provides a valuable framework for understanding and managing the relationships between various stakeholders [20]. In the context of eGovernment, stakeholders include government agencies, citizens, businesses, and other organizations affected by or involved in the delivery of public services. Stakeholder theory recognizes that the success of eGovernment initiatives depends on effectively addressing the needs, interests, and expectations of these diverse stakeholders.

While various studies have explored eGovernment initiatives and their impact in

different countries, limited attention has been given specifically to the Ethiopian context. Therefore, there is a need for research that specifically focuses on the success factors that drive eGovernment implementation in Ethiopia. By bridging this research gap, valuable insights can be gained to inform policymakers, practitioners, and stakeholders in the Ethiopian government on how to effectively design and implement eGovernment strategies, ultimately leading to improved public service delivery and citizen engagement.

3. Methodology

The research approach adopted in this study is qualitative, aiming to explore and understand the complex phenomenon of success factors that drive eGovernment implementation. Qualitative research is well-suited for capturing contextualized data allowing for an in-depth exploration of individuals' experiences and perspectives. Through qualitative research, the study seeks to gain a comprehensive understanding of the factors, dynamics, and complexities surrounding eGovernment implementation success factors.

The study adopts purposive sampling, surveys, interviews, and literature review to ensure robust data collection. Purposive sampling selects key eGovernment stakeholders, facilitating insights from officials, project managers, and IT professionals [13]. Surveys provide broad perspectives, while interviews offer qualitative depth on adoption factors. Moreover, a literature review complements primary data, situating the study within existing knowledge and guiding research questions [14] [15]. In conclusion, these methods enhance research validity and reliability, enriching our understanding of eGovernment success factors in Ethiopia. Analysis techniques include literary, thematic, and Likert scale analyses.

4. The Proposed Solution

The study on eGovernment success factors identifies six key themes that significantly contribute to the expedition of eGovernment and the enhancement of digital public services. These themes include organizational characteristics, employees' characteristics, project management, technology and infrastructure, legal and policy issues, and users' experience. Based on these themes, a conceptual model is developed, highlighting the interconnections and dependencies among the success factors.

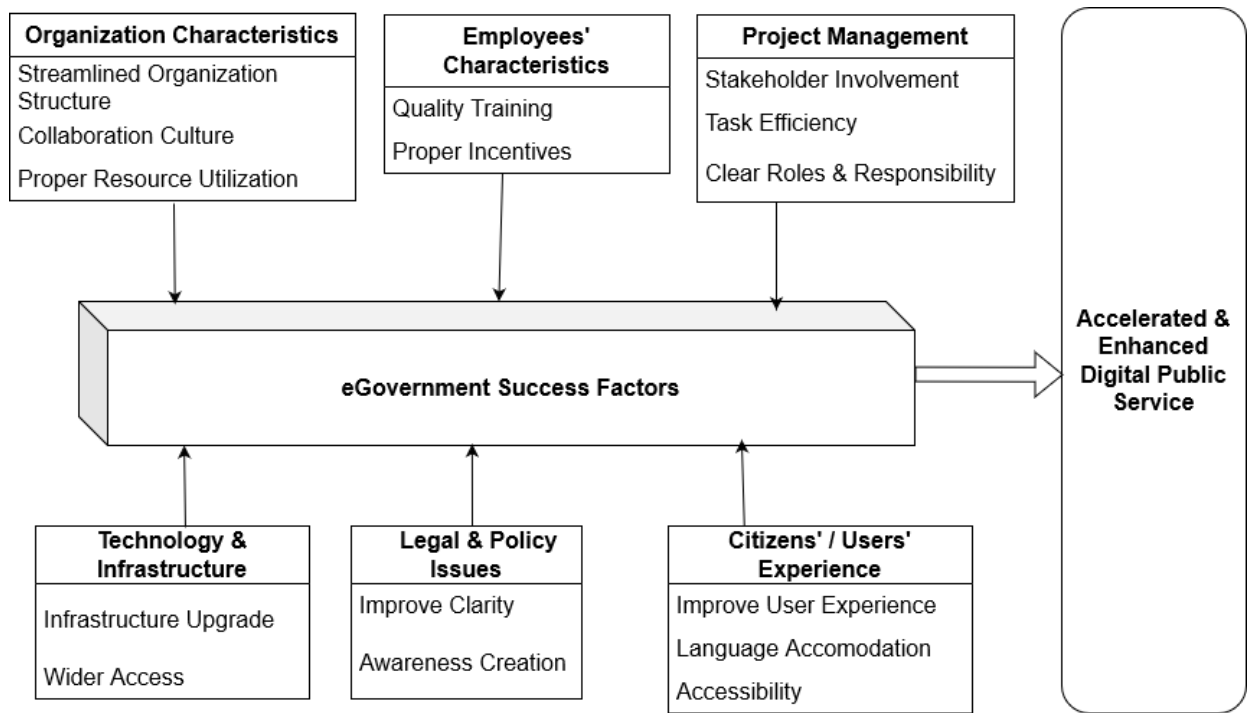


Figure 1eGovernment success factor conceptual model

The model illustrates how the organizational characteristics, employees' characteristics, and effective project management contribute to creating an enabling environment for eGovernment implementation. The model further demonstrates the significance of technology and infrastructure, legal and policy support, and prioritizing users' experience as critical drivers of successful eGovernment initiatives. This conceptual model provides a holistic understanding of the factors influencing eGovernment success and serves as a guide for policymakers and government organizations in formulating strategies and policies. It helps in recognizing the importance of integrating these themes into eGovernment initiatives to expedite service delivery, enhance citizen experiences, and foster a digitally inclusive society.

5. Discussion

The research findings highlight several areas of improvement in the eService implementation process within public service organizations. The discussion focuses on key aspects such as organization structure, collaboration culture, resource management, employee concerns, infrastructure upgrade, and the role of the legal framework.

Regarding organization structure, it is evident that streamlining the existing structure is necessary to enhance operational efficiency and effectiveness. By optimizing the organization's structure, government organizations can better align their resources and

processes with the requirements of eService implementation.

Collaboration culture emerged as another crucial factor. Increasing stakeholder involvement and promoting a culture of collaboration and cooperation are recommended. This can foster better communication and coordination among different departments, facilitating a more integrated approach to eService implementation.

The study also identified employee concerns, particularly the fear of change, as a significant barrier. To address this, it is crucial to provide comprehensive and quality training programs that address employees' concerns and enhance their confidence in using new technology. By investing in employee training and addressing their anxieties, organizations can improve overall user adoption and satisfaction with the eService system.

Infrastructure upgrade is essential for ensuring smooth and efficient operations. Upgrading the office network and workstation equipment is recommended to improve system speed, reduce downtime, and enhance the overall user experience. By investing in the necessary infrastructure, government organizations can overcome technical constraints and deliver more reliable eServices.

Furthermore, the study highlighted the importance of the legal framework. While the impact of the legal framework was perceived neutrally by respondents, improvements in its clarity, applicability, and public awareness were recommended. By focusing on these aspects, the government can ensure that the legal framework provides adequate support and guidance for successful eService implementation.

In conclusion, it is necessary to highlight the significance of addressing organization structure, collaboration culture, employee concerns, infrastructure upgrade, and the legal framework in enhancing the eService implementation process. The recommendations emphasize streamlining the organization's structure, increasing stakeholder involvement, providing quality training, investing in infrastructure, and promoting the positive impact of the legal framework. By adopting these recommendations, government organizations can successfully implement eService and provide improved services to the public.

6. Conclusion & Future Work

In conclusion, this research highlights various areas of improvement in public service organizations' eService implementation process. Organization structure, collaboration culture, and resource management were identified as crucial areas that require focused efforts. It is recommended that project managers prioritize tasks efficiently, ensure better strategy implementation, and streamline the organization's structure to achieve successful project delivery. The study also found a fear of change among employees, indicating a need for better training programs that address their concerns and improve their confidence in using new technology. The study recommends that the government invests in upgrading

office network and workstation equipment to improve the eService implementation. Moreover, there is a need to improve the quality of system training to enhance user experience and ensure wider adoption of the eService system. The study also found a neutral view on the positive impact of the legal framework on eService implementation. Therefore, the government should focus on improving the clarity and applicability of the legal framework, increasing awareness among the users, and promoting the positive impact of the legal framework to ensure the successful implementation of eService. By addressing these areas, public service organizations can achieve successful eService implementation and provide better services to Ethiopian citizens.

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