

Public Private Partnerships (PPP) in the E-Government Initiatives for Developing Nations: the case of Ethiopia¹

Mesfin Belachew

Ministry of Communications and Information Technology,

Addis Ababa, Ethiopia

+251 911 79 14 62

mesfinbelachew@mcit.gov.et

R K Shyamasundar

Tata Institute of Fundamental Research,

Mumbai 40005, India

+91 22 22782288

shyam@tifr.res.in

ABSTRACT

Public Private Partnerships (PPP) as a model is an efficient formula to implement public services by forming collaboration between private partners and the government. PPPs are complex legal arrangements designed to share the control, risks and rewards of a set of specific investments among private partners and a government sector. In most PPP models, the assets are legally owned and used by the private partner to produce a specified category of services for specific period, and then the government gains operational control and legal ownership of the investment, often without payment. Applying the PPP in the E-Government projects helps to achieve the objectives of e-government by effectively planning and implementing the project.

In this paper, we shall address the governance part of PPP in implementing E-Government initiatives. The main aim is to explore ways in which an effective governance structure can be realized through PPP and make e-government service delivery successful based upon our practical evaluations in this direction.

Categories and Subject Descriptors

B.8 [Performance and Reliability]: Public Private Partnership (PPP); K.5.2 [Governmental Issues]: E-Government

General Terms

Management, Measurement, Performance, Economics, Reliability

Keywords

Public Private Partnership; E-Government; Unified Billing System

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1. INTRODUCTION

Electronic Government (E-Gov) having no standard definition so far can be interpreted in various ways like: use of ICT to (i) promote more efficient and effective government, (ii) facilitate accessibility of government services, (iii) make governments more accountable to citizens, (iv) allow greater public access to information, (v) deliver improved services to citizens, businesses, and other members of the society through changing the way governments manage information [1]. Broadly, E-Gov can be understood as the use of ICT to promote more efficient and effective government, facilitate accessibility of government services, allow greater public access to information, and make governments more accountable to citizens [3].

Over the past several decades, governments have turned increasingly to PPPs as one means of financing and maintaining infrastructure and providing public services in the face of budgetary challenges and shortage of internal capacity to build and operate projects. This trend has also extended to E-Gov projects to design, plan, finance, construct, operate and eventually transfer by sharing the mutual responsibility between government and the private sector [5].

In this paper, we shall highlight information about the impact of E-Gov in India, different success factors of E-Gov activities and the governance in PPP projects in section 2. The Unified Billing System project and the way how the case study is evaluated along with results from the survey are discussed in sections from 3 to 5 respectively. Lastly the paper concludes by summarizing the findings.

2. BACKGROUND INFORMATION

In this section, we highlight samples of positive impact of E-Gov from India, success factors of E-Gov and different models of PPP in ICT.

2.1. Positive Impact of E-Government

Progress in online service delivery continues in most countries around the world. The UN E-Government survey 2012 [8] finds that many have placed several E-Gov initiatives through ICT for the use of people. Similar to several other countries, India has done tremendous effort to improve the service delivery using E-Gov initiatives. In this regard, in addition to the national portal, the Government developed an India Development Gateway. This is a portal developed as a single-window access to information and services, with the specific objective of reaching the 'un-reached' rural communities of India, especially women and the poor. It catalyzes the use of ICT tools for knowledge sharing, leading to development. Another example is the E-Gov initiatives

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piloted to address and solve the challenges of primary healthcare in rural areas [2]. The platform from TCS for the purpose, has integrated technologies like, mobile internet, interactive voice response, Indian language font rendering and usability frameworks that can connect the remote patient to the doctor to reach the unreachable society. The above two examples are only some of the many initiatives implemented in India which shows the positive impact of E-Gov to realize inclusive development. Some of the insights for E-Gov initiatives are reported in [2].

2.2. Success Factors of the E-Gov

E-Gov implementation failure in low-income countries is reported to be as high as 84% of all projects initiated [6]. From those 35% of them being classified as total failures - the project never started or was started but immediately abandoned. 50% of the failed projects are partially unsuccessful – major project goals are not attained or there were undesirable outcomes. Some of the major factors for failure can be largely attributed to: lack of organizational changes, limited resource allocation, poor to accept cultural changes, resistance to amend and enforce the legal and regulatory changes etc.

The organizational change is considered as one of the most important factors for successful E-Gov initiatives, implying transforming organization to a more flexible and efficient network structure is the key challenge. Resource allocation is also another important dimension while the basic infrastructure required for E-government implementation is usually capital intensive. Specially in developing nations, where resource is a limitation, using it efficiently and effectively is a challenge. Changes in values, culture, legal and regulatory are also referred as the constituent factors that form an environment benefiting the E-Gov.

2.3. PPP Model in ICT

PPP provides a host of benefits for the government and the public as compared to traditional procurement arrangements. This makes it an attractive option for implementing critical projects in E-Governments comprising of an end-to-end solutions [4]. The benefits to the government are: efficiency in management, reduce risk, better quality in technology and service, pay as service is delivered based on agreed service level agreement (SLA), etc., to the citizens; easy access to service, better service delivery, etc. and to the private partners; creation of employment, creation of wealth, flexibility in service delivery, etc. PPP interventions makes also project affordable, maximizes the use of private sector skills, allocate the risk to the party best able to manage or absorb, deliver value for many, focuses on output and benefits, etc.

PPP can be implemented using various existing models like BOT, BOO, etc., the modalities of which are shown in Table 1.

Table 1:- PPP Models

| Schemes | Modalities |
|--|---|
| Build-Own-Operate (BOO) Build-Develop-Operate (BDO) Design-Construct-Manage-Finance (DCMF) | The private sector designs, builds, owns, develops, operates and manages an asset with no obligation to transfer ownership to the government. |
| Buy-Build-Operate (BBO) Lease Develop-Operate (LDO) Wrap-Around Addition (WAA) | The private sector buys or leases an existing asset from the Government, renovates, modernizes, and/or expands it, and then operates the asset, with no obligation to transfer ownership back to the Government. |
| Build-Operate-Transfer (BOT) Build-Own-Operate-Transfer (BOOT) Build-Rent-Own-Transfer (BROT) Build-Lease-Operate-Transfer (BLOT) Build-Transfer-Operate (BTO) | The private sector designs and builds an asset, operates it, and then transfers it to the Government when the operating contract ends, or at some other pre-specified time. The private partner may subsequently rent or lease the asset from the Government. |

The main criteria to apply one of the models in Table 1 for specific ICT project vary across projects. Major criteria considered are: (a) understanding of strategic outcomes, (b) project risks, and (c) characteristic attributes of projects.

3. GOVERNANCE IN PPP PROJECTS

According to [7] there are three type of governance models; centralized, decentralized and federated. All governance models include an organizational, management and accountability aspect. Centralized governance model is the most popular type and management where power is transferred from top to lower levels. Decentralized governance models are used when business units are also organized in a decentralized way. Federated models often believed to be a combination of what is best of both the centralized and decentralized models. The model will have a central or core team that's dedicated to building and delivering programs that are common across the entire project, and often include leadership, professional skills and project management from all the stakeholders.

In PPP, say for example the BOT model, the private partner will cover all or most of the initial investment of the project by assuming that all the activities in the process of initiation, building and operating the project will be handled smoothly. The private partner will generate money only after a successful implantation of the project. In this regard, the willingness and the dedication from the private partner to make the project successful are quite high. In implanting the project, not only the private partner is responsible, but also all the other stakeholders like government, end users and beneficiaries. Hence, a strong governance structure which has a strong commitment, represented fairly from all stakeholders, having a multilevel unit has to be established with predefined roles, responsibilities and accountability. In this regard, we opine that the federated governance model depicted in Figure 1 as a suitable model to satisfy the requirement of ICT projects designed to be implemented using PPP.

Executive committee is the top most governing unit spearheading PPP projects. It consists of members from top management of the government, private partners and collaborative Institutes as well as representatives of end users, and would be responsible to provide strategic guidance, resolve escalation, bring changes to the contractual agreement and control overall project.

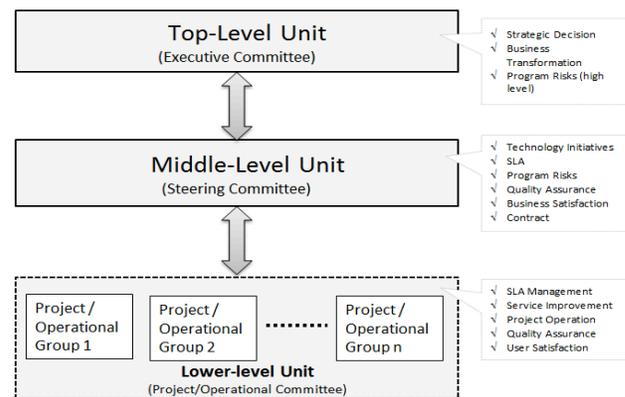


Figure 1 :- Federated Governance Model in ICT Project using PPP

Steering committee is the working committee of the PPP project consisting of middle level management from parties involved in the PPP project. It is responsible for monitoring and controlling of

the project activities as per the contractual agreement and other relevant specification documents. Project/operational committee are the lowest level in the proposed governance structure. The committee would be responsible to work together to ensure successful realization. They work as a team for implementation of the project, co-ordination of day-to-day activity, communication with the higher committees.

4. E-GOV INITIATIVES IN ETHIOPIA

The Unified Billing System (UBS) project, as part of E-Gov initiatives, is one of the major interventions by the Ministry of Communication and Information Technology (MCIT), Ethiopia, to unify the bill payment of various utilities for the convenience and benefit of citizens. It focuses on enhancing the quality of service available to the citizen through re-defining the way citizens pay their utility bills.

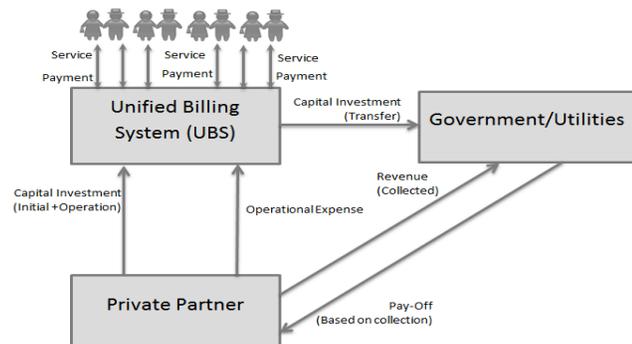


Figure 2 :- UBS Implementation Model

The key utilities identified for this pilot project are: Addis Ababa Water & Sewage Authority (AAWSA), Ethiopian Electric Power Company (EPCO) and Ethio-Telecom (ET). The objective of the initiative is to establish a suggestive PPP model for realizing an ICT enabled Integrated Utility Billing for the three public institutions with a highly competent, and efficient private partner.

The UBS implementation model in Figure 2 shows the BOT model used in the PPP agreement between the government and the private partner. In this model, MCIT represents the public sector part of the partnership and the principal owner of the project while the Utilities (ET, EPCO and AAWSA) are the principal beneficiaries from the public sector side. The Unified Billing System represents the system, which includes the application, IT infrastructure, all processes and collection centers. This is the part of the model that will interface with the citizens.

5. CASE STUDY ON UBS

The UBS project discussed above is used as a case study in this paper. The case study was conducted by preparing a questionnaire containing general information about the PPP project. The questions included were assessing topics about: governance structure of the project, management, quality of service provided and users' expectations from the project. A total of 35 questions were asked to all the parties involved in the project; the government, the beneficiary institutions, the private partner and the end users. The quota sampling technique is applied to determine responses from each of the parties. In addition, the same questionnaire is also distributed to individuals involved in PPP projects other than the UBS project.

Respondents from Africa, Asia and Europe with the distribution of 81, 14 and 5 present respectively have participated in

answering the questions. The respondents are represented from the government (47.6%) and the private partner (43%). 62% of the respondents are from the UBS, Ethiopia, whereas the other 38% are from different PPP projects from Africa, Asia and Europe. The respondents have prior experience in BOT (40%), BOOT (40%), BOO (15%) and BDO (5%) projects. In the following section, we analyze the results of the survey on specific issues raised in each category of the questionnaire and a summarization of result is provided in the following section.

Issue 1:- The federated governance structure represented from owners, private partner, end users.

The survey result in Figure 3 shows that the governing structure is usually represented from the government (86%), private partner (52%) and stockholders (33%). The end users participation in governing the project is showing very low, while the project is designed for the general public. The stakeholder's participation in governing the project is also limited compared to the government.

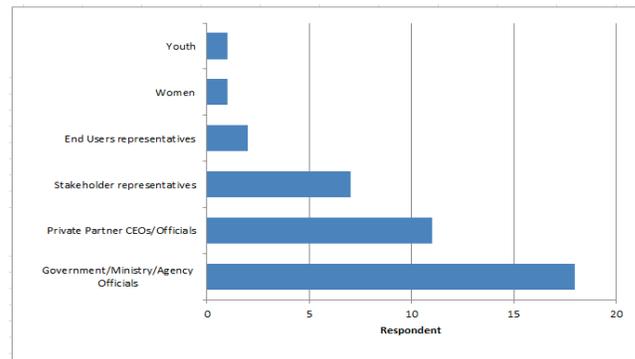


Figure 3 :- Representative in PPP Project

Issue 2:- Power balance in managing the PPP project

To identify the power balance between parties in the project we have asked two questions. The first one is asking who was driving the PPP project as project manager and the second one is who is playing the decision role in accepting/rejecting of the initiated change in the project.

The result in Figure 4 indicates that both, the public and the private partners are playing the major role in deciding on the implementation and management of the project. The survey result indicates that the power of government is higher than the private partners in the implementation.

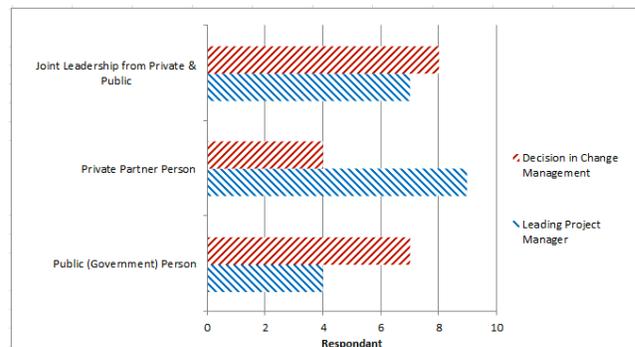


Figure 4 :- Who has more Power in the Project

Issue 3:- The major Challenges in the Implementation and Operation of PPP Project

By indicating around eight different possible challenges, the respondents were asked to evaluate one major challenge affecting the PPP project implementations.

The response in Figure 5 indicates that getting funds and the ownership of the project are the major challenges in the implementation of PPP which major factors for the success of the project.

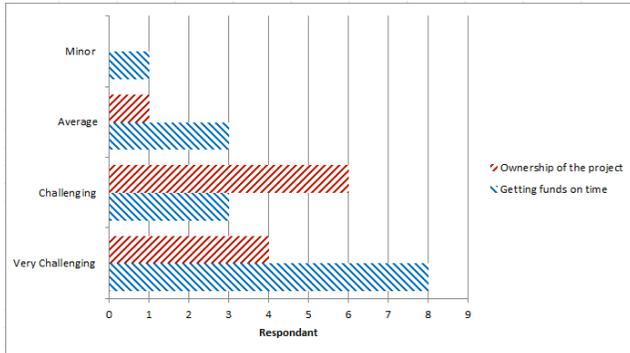


Figure 5 :- Challenges of the PPP projects

6. CONCLUSION

The governance structure is not the only parameter to make a PPP project successful, but also points like the level of commitment of the parties involved in the project, knowledge of the representatives from the parties in the different level of management, the organizational change required in the implementing the project and the change management procedures followed while implementing the project are some to list.

As one of the concluding points, we found that the participation of the end-users and other stakeholders in the governance of the PPP project is very limited. This led to a major shortfall to make the project a success. The second issue is the power balance in leading the project. As indicated already, a joint leadership in all levels of the management specific to the project is more visible to assure the success of the project. The result shows a positive development. The third point is about the challenges faced in the implementation. The result shows that, securing the financial resource for the project is a major challenge in the PPP project. Financial institutions are not providing sufficient funds to the project. The second major challenge after the financial resource indicated from the survey is the ownership issue to make the

project sustainable. All members of the consortium in the project implementation have to own the project and also deliver what is expected for the project. The lesser the ownership the higher the failure to sustain.

7. ACKNOWLEDGMENTS

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