CHAPTER 5
RECOMMENDATIONS AND ACTION FOR SUCCESS

5.1 Introduction

From the preceding three chapters, containing the results of the data collection, analysis and discussion, various issues have emerged with regard to current ICT implementation in India. Specifically, problems that beset the implementation of e-government in developing countries and especially the e-administration component have emerged.

These problems have been analysed and discussed in chapter six and the relationships between factors identified. This chapter moves the discussion further by suggesting practical solutions in the form of recommendations. From the analysis and discussion in the previous chapter, the situation looks complex due to the myriad of issues identified and categorised, that is funding, institutional, technological, individual, and donor issues.

Some of these problems have obvious solutions while others may not. In this chapter, recommendations have been strategically grouped into those targeted at the short term and those for the long term with sub-groups for the different stakeholders. The recommendations follow from the descriptive model shown in Figure below. The model shown in Figure, mirrors factors described in Chapter Two and Chapter five.

The model shows that either the presence or absence of a factor will increase or decrease chances of success or failure. Further, guidelines to the implementation of the recommendations have been developed and packaged into a recommendations and guidelines document that was circulated to practitioners and professionals in India and to other researchers in e-government. From the recommendations identified in this chapter, a paper was written for IST-Africa Conference 2007 (Gichoya & Hepworth 2007).

5.2 Descriptive model:

The descriptive model shown in Figure 7.1 represents a virtual description of the interventions necessary for the success of ICT projects. This model is an improvement on the model presented and shows the need for increasing the impact of factors for success while reducing the impact of the factors for failure.

This is achieved through additional or increased availability of positive influences while at the same time decreasing the presence of negative influences. This action for success would lead to increased chances of achieving the output variables in this case the perceived benefits. For the model to function, an e-administration
readiness assessment of the existing circumstances would need to be carried out to identify the factors for success and failure before deciding on an action for success. This should be done by technical personnel in conjunction with other stakeholders such as users, policy makers and funders.

In a country like India where there are only two ICT departments in the whole government, consultants may do this, though this is likely to be expensive. Coordination would be easier if ICT steering committees were set up and ICT departments established within the ministries to coordinate ICT development and implementation as in the private sector.

Figure 5.2.1: A descriptive model for success of c-administration

The above descriptive model is combined with the checklist, strategic planning model and the recommendations and guidelines to form an implementation framework for e-administration as described in the following.

A framework for e-administration implementation to satisfy the objectives three and four a framework was designed for ICT implementation that draws on the initial factor model & descriptive model shown above and the recommendations presented in this chapter.

For purpose of this research, a framework is taken to mean, a collection of models, methodologies and recommendations that have been created. Therefore, the framework created can be applied in a variety of contexts in India, with each user taking
from it what is appropriate for their own situation. From these relationships, it can be observed that some factors influence the intensity of other factors which means failure may result from the consequences of one factor affecting another. How institutional issues affect funding and how funding affects technology was demonstrated. These situations were shown to lead to total or partial failure depending on the magnitude of the problem.

For the e-administration implementation framework, the checklist was taken to be the initial tool for the first stages of implementation. By involving e-readiness assessment and the feasibility studies as well as identifying the main issues, it acts as an important tool for understanding the current situation and the expected outcome.

This then leads to strategic planning where goals are identified and a systematic plan is followed. In order to meet the objectives of the strategic plan and also satisfy the checklist, the recommendations comments should be used while seeking answers to various issues that may arise while, at the same time, providing best practices that may be similar or are contained within the recommendations.

This framework is presented below in Figure. Checklist for e-administration planning Use Strategic planning model for e-administration Recommendations Re-.0 (Best practices)

![Figure 5.2.2: A framework for e-administration implementation.](image-url)
5.3 Recommendations

In this section, recommendations that the Indian government and other stakeholders should consider to improve CT implementation are put forward. The recommendations are from five sources of information:

1. The literature reviewed

2. Development partner websites especially reports on the development gateway website; interviewee’s responses to questions on action for success, sustainability and commentaries;

3. Document analysis;

4. S. researcher’s own observations and experiences of ICT implementation. The researcher is a member of the ICT committee at Moa University and as the Head of Documentation Unit at the Department of Human Resources Development at the Ministry of Labour and Human Resources Development. Both position involved overseeing ICT implementation at the respective organisations.

These recommendations were circulated to interviewees and experts on ICT implementation in government to get opinions on their usefulness and applicability and hence their validity. The recommendations are grouped as either short term or long term. The difference in short and long terms in this case is related to the budgetary period with the short term being taken to mean actions that can be taken immediately within the current budgetary period.

Due to the nature of the organisation of the Indian government, which is highly structured, the researcher also identified recommendations that can be implemented without larger or organisational implications. The long-term recommendations may require the restructuring of the organisation. Further, some long-term recommendations may require legislation, which cannot be achieved in the short term.

5.3.1 Recommendations to government as a whole

Short-term recommendations for the government are those that are necessary to improve on current e-administration implementation while waiting for the long term recommendations to be implemented.

A) Short term recommendations

1. Legitimise and prioritise initiatives from the highest authority in the government. This would result in the emission of clear messages of support from the top. The top in this case means the political establishment, the Cabinet.
2. Develop national policy guidelines and enact laws that favour e-government development in line with technological advancements. The following policy areas are suggested for short term actions:

- ICT policy guidelines and the legal and regulatory framework to address issues of virtual crimes, privacy and security;
- Educational policy guidelines and regulatory framework to lay emphasis on ICT training in the curriculum;
- Training policy guidelines;
- Procurement policy guidelines.

3. Liberalise the telecommunication sector to increase competition and lift the regulations on wireless and other digital technologies.

4. Create a flexible and appropriate financial framework for e-administration that will make it easier to:

- Increase ICT budgetary allocations. This has not been done before but it would encourage development of ICT;
- shuffle allocations;
- scavenge unutilised allocations;

5. Motivate staff to reduce movement to 'greener pastures' through:

- developing schemes of service;
- appropriate remuneration by paying market rates for professionals as for doctors and lawyers, supported using the argument that savings would be made from not hiring consultants;
- Equal staff training opportunities;
- Delegation of duties which would increase staff motivation and encourage succession training;
- encouraging the adoption of standardised purchases;
- Leadership training to change negative attitudes;
- Performance evaluation and replacement of poor leaders.

B) Long term recommendations

The long-term recommendations should build on the short-term recommendations and should involve the enhancement and solidification of the short-term achievements. These include:

- establish ICT departments complete with structure and appealing schemes of service to coordinate ICT activities in the ministries
- reduce the bureaucratic procedures in recruitment, staff training and promotion
The recruitment process
- Staff training
- Staff promotion
- The purchase of small and emergency supplies

- use ICT to increase transparency through
  - Online advertising of tenders
  - Online submission of tenders
  - Digital processing of tenders

- train staff on donor funds management

5.3.2 Recommendations to Ministries

Though these recommendations may be related to the recommendations for the whole government it is felt that the following should be addressed to the ministries where appropriate action may be taken.

A) Short term recommendations

- complete the ministerial and departmental ICT strategies that:
  - adopt a holistic and comprehensive approach, with clear vision and strategy;
  - have a 'vision with substance and budget with vision';

Develop a clear plan of action that can be adopted by the ministry or government; incorporate the departmental strategies into the ministry or government ICT plans. Identify ICT champions successful e-administration requires an organisation infrastructure with a clear leader who can commit financial capital and communicate specific progress to government officials. This would normally be a head of an ICT department;

- set up a steering committee;
- look for-funds from outside the ministry by:
  - negotiating for increased budgetary allocation;
  - negotiating for more funds from development partners;
  - including an ICT component in other project funds.

- maintain a well-trained staff base;
- Have a project knowledge management strategy which enables knowledge storage, maintenance and sharing; ensure contracts are appropriate by negotiating equitable contracts; negotiating for contracts that can be reviewed; hiring reputable consultants; consulting widely before hiring consultants; including knowledge sharing aspect in contracts; hiring consultants to the extent that they are required.

B) Long term recommendations
5.3.3 Recommendations to technical staff

Technical staff may or may not be involved in project implementation. However, all of them will be involved in making the system functional both in the short term and in the long term. Their input is important for system sustainability because they are expected to be members of the ICT steering committees. Some of the recommendations to technical staff are related to those for the government and ministries but are more concerned with implementation.

A) Short term recommendations

The following are the short-term recommendations to technical staff. Create internal pressure by:

- Making services offered and most, if not all, communications on-line. In this way the staff will find that they cannot carry out their day-to-day work without ICT; encouraging the leadership to view ICT positively; being at the forefront in supporting ICT use and generating ideas that will feed into steering committees;
- Being selflessly involved in training other staff. This will improve the status of ICT staff and form a basis for higher remuneration. Embrace or call improvisation.

B) Long term recommendations

The following are the long-term recommendations for technical staff,

- help the ministry to formulate good ICT practices on:

  - various ICT related issues for example the upgrade cycle; private-public partnerships in implementing projects; internal software development; the review of current use of ICT and reflection on past success and failure.
  - Advocate for the use of the most appropriate technology available.

5.3.4 Recommendations to e- government implementers
Implementation may involve a group of professionals from ICT department, user departments, development partners and consultants. These will generally represent diverse interests.  

Z3.4.1 Short term recommendations in the short term, the implementers should:

1. Have a clear vision and strategy with the following characteristics: initiation with an action framework to allow rational and coordinated investment effort; emphasis on putting e-administration on the government agenda; communication of broad vision and goals throughout bureaucracy.

   This should involve effective procedures for consultation across government so that individual bureaucrats can support the initiatives; inclusion of measurable goals on ICT projects that can be justified and supported by both senior management and politicians.

2. Use tools developed in this research and elsewhere that relate to ICT Implementation.

3. Think small, be agile and fast.

   o Projects should be implemented to the extent of available funds and other resources, e.g. trained technical staff and users;
   o Implementers should:
       ▪ move fast but cautiously when budgets are available;
       ▪ have a plan ready before the budgets are available;
       ▪ keep the overall goals of an ICT system in mind, consider all functional characteristics but implementation should depend on local circumstances;
       ▪ Create measurable goals at the initial stages of planning. Decision makers would like to see something that they are convinced is achievable within a given period.

   o The project design should appeal to financial controllers and possess the following characteristics:
       ▪ Emphasis on local system design that focuses on low cost, high return investments;
       ▪ Compatibility with the existing infrastructure;
       ▪ Inclusion of a systematic requirement analysis to bridge the gap between the existing data systems and the proposed ones
       ▪ Encouragement to use open source software where applicable as an alternative to proprietary software.

4. Recommend changing leadership styles through change management. To encourage the support of the leaders, ICT implementation can be tied to bigger issues for example modernising and reforming the government structure to make it more efficient.
A) Long term recommendation

The long-term recommendation to implementers are that they should give due consideration to long term finance by suggesting ways of solving potential financial problems, such as donor withdrawal, through:

- shuffling of allocations;
- scavenging unused budgets;
- design divisibility by supporting one business function at a time and providing stepped levels of support to business functions;
- implementing to the extent of funds;
- In-house software development.

5.3.5 Recommendations to development partners

Recommendations lasting to donors re affected by the policies of the government of the day that determine the relationship with donors.

A) Short term recommendations

In the short term, donors should:

Support the acquisition of good practices through:

- Involving recipient nations' staff in design to reduce the design actuality gaps.
- Sponsoring implementers and technical staff for short courses on e-government in donor countries.
- Sponsoring study tours to enable most staff to gain first-hand experience.

B) Long term recommendations

In the long term, donors should:

- Allow the recipients a leeway in procurement. Recipients should be allowed to procure ICT facilities from any source that they consider appropriate under the circumstances;
- Make available less conditional forms of aid package. This will help to bridge the digital divide that is being advocated globally for the benefit of all.
5.3.6 Recommendations to other stakeholders

This group includes the private sector, universities and research bodies. These organisations can support e-administration initiatives indirectly by providing services that the government may not provide.

- Initiate research into ways to overcome the potential barriers of ICT implementation, e-government and e-administration. Relevant university departments and individual researchers could do more research on ways to develop cost efficient methods of ICT implementation that are in line with local circumstances.
- The private sector should be involved in e-administration implementation by: getting involved in training; helping the government to reduce corruption by supporting the electronic tendering system; offering partial finance for projects that can be of benefit to them, such as, e-procurement; sharing experiences and good practices in implementation.

5.4 The recommendations and guidelines document

One of the aims and one of the objectives of this research is to develop Strategy documents at can be used by policy makers and e-administration implementers to increased e chances of successful T implementation. This strategy document as prepared in form of a recommendations d guidelines document that was then sent o practitioners and professionals in this interest area for comments. The recommendations developed in this chapter have been compiled into a document and guidelines developed to guide the user. The recommendations and guidelines are explained in details.

5.5 Testing the recommendations and guidelines

The recommendations and guidelines which had been prepared by the researcher and reviewed by his supervisors needed to be sent to practitioners and professionals in India and to other practitioners who have been involved in research in government informatics. Their comments were considered crucial in proving the practicality and applicability of the recommendations and guidelines.

5.5.1 Circulating the recommendations and guidelines document

Two groups were chosen to participate in this exercise. The first group comprised of the twenty eight interviewees in the Indian government ministries and directorates. The second group comprised of researchers in government informatics.
The second group included African researchers or those who have been involved in similar research in developing countries. The document was sent to a total of thirteen Indian practitioners and three researchers. The participants were selected using the following criteria:

- They participated in this research as interviewees; they were experienced in ICT implementation if government;
- They were researcher’s e-government implementation;
- They were willing to comment on the recommendations and guidelines document.

Five practitioners and two researchers had responded by the time of writing this thesis. It was found that several interviewees had left their places of work for various reasons and some could not be traced or were not willing to give their comments even after promising to do so on telephone. Some of the responses received are discussed for the possible solutions.

5.6 Chapter summary

This chapter has identified the various interventions to be carried out to ensure success of ICT projects in government. The recommendations are based on the literature reviewed, the interviews and from observations made by the researcher while collecting data. To a small extent, the previous experience of the researcher as a civil servant in the Indian government has helped to shape them.

These have been presented as an 'action for success' or response to specific issues. Some actions are easier to achieve while others are more difficult. One example is how to minimize political interference, which is difficult due to the volatile nature of Indian politics at present. The chapter has discussed the interventions that can be made to meet the challenges identified in Chapters Two, Five and Six. Recommendations have been made to meet the challenges apparent from the general factor model in Chapter Two, the FITID and the factor models in Chapter Six and the descriptive model shown in this chapter.

The importance of good practice is highlighted. A recommendations and guidelines document was developed and circulated to practitioners and professionals in government informatics. Their comments have been captured and included in this chapter and further documented. These Comments showed that the recommendations and guidelines are grounded in reality, generally in Africa and specifically in India.