Chapter 4
Integrated Architecture Framework for E-Government:
A Socio-Technical Assessment of E-Government Policy Documents

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ABSTRACT

Emerging trends in Information and Communication Technologies (ICTs) in governments around the globe suggest that developing countries should embrace e-government as an enabler of efficient and effective service delivery. The Government of Zimbabwe, which is a case study in this chapter, is acutely aware of the critical role that ICTs play in socio-economic development. This chapter discusses Zimbabwe's e-government policies and programmes and maps them against the e-government architecture framework by Ebrahim and Irani (2005). The e-government architecture framework defines the standards, infrastructure components, applications, technologies, business models, and guidelines for electronic commerce among and between organisations that facilitate the interaction of the government and promote group productivity. The study is theoretically based upon the socio-technical theory, whose view suggests the existence of a technical sub-system and a social sub-system in an organisation. This theory has been adopted in this study to explain the complex relation between the government as an institution and e-government as an artifact. Drawing from the e-government architecture framework and the social-technical theory, an integrated e-government assessment framework is developed to explain the nature of relationships among government, citizens, and technology.

1 INTRODUCTION

The emergence and proliferation of Information and Communication Technologies (ICTs) have made it possible for governments to improve efficiency and effectiveness by relocating services and products from government offices to locations closer to the citizens (Gichoya, 2005). This relates well to an earlier insistence by Tapscott (1995), that ICTs support the "age of network intelligence", reinventing businesses, governments and individuals. ICTs have permeated every layer within

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governments such that ministries, departments, agencies, bureaus, divisions, units and offices are increasingly being modernised inside the web of multiorganizational, multigovernmental and multisectoral relationships (Goldsmith and Eggers, 2004). Throughout the world, use of ICTs for government reinvention is increasing, though developing countries are still in the early stages of full-scale ICT deployment.

E-government as an artefact is modelled in the e-government architecture framework by Ebrahim and Irani (2005). As generally accepted, e-government is the use of ICTs to support government operations, engage citizens, and provide government services. While this definition captures the essence of e-government, Dawes (2002) unpacks e-government to expose the following four dimensions:

- **E-Services:** The electronic delivery of government information, programs, and services often (but not exclusively) over the Internet.
- **E-Democracy:** The use of electronic communications to increase citizen participation in the public decision-making process.
- **E-Commerce:** The electronic exchange of money for goods and services such as citizens paying taxes and utility bills.
- **E-Management:** The use of information technology to improve the internal management of government.

Analogous to e-commerce, which allows businesses to transact with each other more efficiently (B2B) and brings customers closer to businesses (B2C), e-Government aims to make the interaction between government and citizens (G2C), government and business enterprises (G2B), inter-agency relationships (G2G) and Internal Efficiency and Effectiveness (IEE) more friendly, convenient, transparent, and inexpensive (United States' e-Government Strategy, 2003). The four dimensions of e-government by Dawes (2002) are captured in the e-government architecture framework by Ebrahim and Irani (2005), which addresses and identifies the standards, infrastructure components, applications, and technologies for e-government. The architecture framework is divided into four layers; access layer, e-government layer, e-business layer, and infrastructure layer.

Zimbabwe has demonstrated knowledge about e-government and its benefits through the formulation of many ICT policies. However, the e-government policy problem is that all policies ignore political and economic dynamics which have a direct bearing on any developmental project. A critical question which is then raised is: *What has the e-government policies achieved towards e-government implementation in Zimbabwe?* Central to this main question is a sub-question: *Do the policies address the peculiarities of social needs of Zimbabweans?*

This chapter seeks to explore and question Zimbabwe's e-government policies which underpin the government's ICT for development discourse. The chapter then presents recommendations that take cognisance of the economic and political pressure Zimbabwe is spooling under. The study is carried out at a time when Zimbabwe is struggling with deep challenges rooted in political and economic tension. Inflation in nine-digit figures, cholera epidemic, HIV/AIDS and dysfunctional social services among other problems, have epitomized the challenges in Zimbabwe. We are conscious of the fact that in the maze of political and economic chaos, e-government initiatives are at the slowest level of development in Zimbabwe. Political pronouncements are made towards modernizing government, but no resources are made available to implement ideas. The findings and recommendations are applicable to other countries, especially in the developing world, that find themselves in situations similar to Zimbabwe.

This chapter is theoretically based upon the socio-technical theory, whose view suggests the existence of a technical sub-system and a social sub-system in organisations. This theory has been