

## Chapter 2

# Information Technology and Resistance to Public Sector Reforms: A Case Study in Kenya

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### ABSTRACT

*The objective of the chapter is to discuss how Information Technology can mitigate constraints to policy implementations stemming from a highly contested context. Main recommendations have been drawn by discussing main challenges met by Kenya in the restructuring of its health Information Systems as demanded by health sector reforms. The discussion will focus on how Information Technology can be used to limit the drawbacks of a highly contested policy context, mediate between global and local interests, and mitigate resistance to change. The chapter concludes with main recommendations on how to extend research on the implications of software designs in implementing public sector reforms and other policies in developing countries.*

### INTRODUCTION

Main research on government information technology has recognised the lack of a causal link between IT and organisational outcomes in public organisations (Kraemer & Dedrick, 1997). It has been acknowledged that contextual factors play a crucial role in conditioning IT implementations and usage (Fountain, 2001). This is particularly true in contexts of developing countries for a number of reasons.

Firstly, IT innovation processes are usually part of public sector reforms involving not only national policy actors but also international policy actors such as the World Bank.

Secondly, most developing countries, particularly in Africa, are characterised by poor human capital in the IT sector. In such a context it is difficult to find a satisfactory level of confidence with information technology tools, particularly from public managers and policy makers. This can have a negative influence on the level of commitment of policy makers to IT innovation.

DOI: 10.4018/978-1-4666-2770-3.ch002

Finally, processes of re-structuration and innovation of public administrations in most developing countries are usually based on reform models and IT designs imported from abroad. Software applications, in particular, may have assumptions embedded in their design (Kirkpatrick, 2004) that do not match those of users in the local context.

All these contextual issues affecting IT innovations in the public administrations of most developing countries cannot be easily changed. In particular, the complexity of multi-agency and multi-interests contexts which can be found in the public sector of most developing countries makes it difficult to arrange for successful change programmes that can align IT systems with organisational structures (Heeks, 2005).

These considerations point to the need to look closer at the way information technology in Governments of developing countries can actually be leveraged to mitigate constraints posed by certain contextual factors. Therefore, besides looking at contextual issues challenging IT implementations and usage in the context of public sector reforms in developing countries, this chapter aims to discuss about bottom-up approaches through which information technology can be used to overcome these same contextual difficulties.

More specifically, the objective of this chapter is to provide researchers and practitioners with directions on major issues that should be looked at to better understand how information technology can actually be used to mediate between different actors' interests and assumptions and other institutional factors affecting innovation processes of public administrations in a developing context.

Main arguments on this topic will be drawn by illustrating the experience of the Ministry of Health in Kenya in the restructuring of its health information systems as part of its health sector reforms.

The main rationale of the chapter is to better analyse knowledge on contextual limitations and enablers of IT innovation in a specific public sector context and to see how this knowledge can

be used as a feedback to information technology investments in similar developing contexts.

The discussion of the role of information technology in mediating contextual circumstances will be mainly focused on the case of health sector reforms and the restructuring of health information systems in Kenya. Yet, main arguments and recommendations developed in the chapter discussion can also be applicable to similar cases and situations of public and health sector reforms in other African and developing countries.

## **BACKGROUND**

Information technology has assumed a strategic role in the implementation of recent managerialist public sector reforms such as the rationalisation and decentralisation of management structures and performance-based accountability (Osborne & Gaebler, 1992). However, some studies have drawn attention to the failure of IT initiatives. Such a failure has been linked to the top-down approach of IT-led public sector reforms and New Public Management recipes (Ciborra, 2005; Ciborra & Navarra, 2005), which do not account for constraints posed by the existing institutional setting. In particular, the disaggregation tendencies of new public management matched with the inconsistencies of foreign development programmes (Dunleavy, Margetts, Bastow, & Tinkler, 2006; Therkildsen, 2006) have contributed, in most cases, to the fragmentation of information systems (Kimaro & Nhampossa, 2005), increasing rather than reducing complexity (Bellamy & Taylor, 1992). Most of times IT solutions are conceived and implemented by foreign consultants who protect the software source code from local customisations (Ciborra, 2005). In addition, a lack of local financial (Sander, Bell, & Rice, 2005) and human capacity (Higgo, 2003) often contributes to the discontinuance of IT systems.

Contrary to a top-down technology-centred approach, the sustainability of IT systems in de-

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