Chapter VII

Standards, Strategy and Evaluation

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INTRODUCTION

The purpose of this chapter is to define the context of standards within an Information and Communications Technology (ICT) strategy and to suggest how the benefits arising from the use of standards might be evaluated. Within any organization, standards will be defined at a number of different levels, dependent upon the focus/span of operation. Classically, standards might be defined at three levels:

- **strategic**: the standards that should be used for all systems across an organization, including for instance standards which apply across national boundaries;
- **tactical**: standards which might apply for systems in a more limited context, such as a regional supplier;
- **local**: standards chosen in restricted or exceptional circumstances to satisfy the needs in a specific location.

This distinction is not always clear cut, and may be applied iteratively, dependent upon the context of use. For instance, a Business Unit will define its own strategic standards, or standards to support its ICT strategy. These ‘strategic standards’ will, of course, be defined in the context of the organization’s ‘strategic standards’. The local standards will ‘inherit’ characteristics of the strategic standards (which may be national or international in scope). It is our contention that in order to be successfully promoted, ICT standards need to be formulated within the context of an ICT strategy. (By ‘ICT strategy’, we mean the use and management of ICT by an organization to achieve its desired goals in a changing and competitive operational environment.) This theme forms the main basis for the discussion within this chapter on the benefits and evaluation of ICT standards.

The purpose of this chapter is to describe the elements of an ICT strategy as they relate to ICT standards, the benefits that can be gained by defining and implementing the strategy, and the factors that have to be taken into account as
decisions are made about the strategy and its attendant standards. Formulating an ICT strategy includes making decisions about which ICT functions are needed by the organization to help achieve its goals, how the organization should migrate from its existing ICT base, what standards are needed, and how the functions should be procured. It does not, however, include detailed plans for installing new items of, say, system software nor for developing new applications software. These decisions are to be made at the appropriate tactical (e.g., business unit) or local (e.g., departmental) level.

We have not included application-development priorities in our definition of an ICT strategy because we believe that, in the long term, application-development skills will be spread throughout organizations. Decisions about which applications to develop or enhance next will therefore be taken by individual managers. The main role of the ICT department will be to develop and maintain the ‘ICT architecture and infrastructure’ that allows these developments to occur.

Nevertheless, an agreed set of application priorities will be a necessary input to developing an ICT strategy. The priorities should be set as a result of a strategic systems planning process in which the (central) ICT department will play a significant role. The ICT component of strategic planning is well documented, e.g., Earl (1989), Peppard (1993), Robson (1997), Ward et al (1997).

THE IMPORTANCE OF AN ICT STRATEGY AS A CONTEXT FOR STANDARDS

In order to be successfully promoted, ICT standards need to be framed within the context of an ICT strategy. We believe that there are three main reasons for this:

First, users are demanding a much faster response to their needs either for new software applications or for enhancements to existing applications. In addition to providing administrative support, computer applications are now essential for the day-to-day operation of most organizations, and have a direct effect on their ‘business’ goals. In a commercial context, they can also be the key to achieving a competitive advantage. The growing importance of applications software means that changes in business strategy now have a far greater impact on the software needed to support the business. As a result, systems departments are expected to be able to react much more quickly to new requirements.

Second, expenditure on ICT continues to be a significant (and increasingly pervasive) element in the organizational budget.

The third reason for the growing importance of an ICT strategy is that the lack of ability for current systems to interwork is seen as a major problem that prevents organizations from making best use of their ICT investments. For instance, the increasing demand for access to data, accentuated by the rapid development of the internet and world wide web, highlights the need to make data accessible, accurate, consistent (and secure) — in other words to ensure that standards are defined for data and data management.
The Nigerian National Information Technology (IT) Policy
www.igi-global.com/chapter/nigerian-national-information-technology-policy/45421?camid=4v1a

Factors Influencing the Lifetime of Telecommunication and Information Technology Standards: Results of an Explorative Analysis of the PERINORM Database
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