Chapter 7

Organisational Information Needs for Public Service Delivery in the Digital Era

ABSTRACT

Chapter 7 continues the path through the ISSP framework by considering the information needs of the government entities. However, before it applies various suggested models, the chapter discusses concepts related to the transformation of data to information to knowledge and to wisdom. The chapter discusses this transformation process in detail, including the knowledge-based economy and knowledge management. Once these various concepts are addressed, the chapter focuses on the application of various models to explicitly determine the information needs of the government entity by providing a step by step description of the procedure for doing this, with supporting examples for each step. The outcome of this process is the entity's information gap and resultant database contents for the government organisation under examination.

INTRODUCTION

I never guess. It is a capital mistake to theorize before one has data. Insensibly one begins to twist facts to suit theories, instead of theories to suit facts. Sir Arthur Conan Doyle, Author of Sherlock Holmes stories

Chapter five provided a logical framework for determining the ICT requirements of an organisation (see Figure 1) to ensure Public Service delivery in the digital era. The first stage of this logical framework was explained in the previous chapter, which provided the appropriate tools to carry out an ICT strategic review of the organisation regarding the three key aspects, namely an organisational I.S strategic review; organisational data usage strategic review; and organisational review of the customer persona profiles. This particular stage provided a description and analysis of the current status of the organisation in terms of how the organisation exploits its information systems, how the organisation utilises its data and information, and examines the profiles of the organisation's customer base. Furthermore, it

also provided an insight into where the organisation wants to position itself in the future. The past and current status of the organisation and the insight into its future, provide the basis for the second stage.

The second stage of the logical framework for determining the ICT requirements of the organisation has the purpose of revealing the actual ICT needs of the organisation. It moves from what is merely an insight, to where the organisation actually wants to be in the future. In other words, the second stage basically attempts to reveal in precise terms the actual current and future ICT needs of the organisation in terms of three key features:

1. The information that the organisation requires to run its activities now and in the foreseeable future;
2. The information systems that the organisation needs to support its information requirements; and
3. The information technology that the organisation needs to support its information systems.

Each feature acts as a link in a chain of actions, the first link being the information requirements of the organisation. Hence, this chapter will discuss the first link; the subsequent two chapters will discuss the other links in turn (i.e. information systems and the information technology requirements).

BACKGROUND

Marchand, Kettinger and Rollins (2000) argue that organisations are struggling to understand how to put information to work so that it improves their organisational performance. They contend that organisations have put more emphasis on creating systems and processes to store or classify information than on improving the way people behave with information. This contention is significantly applicable to governments. Governments have made huge investments on information technology but senior Government executives are finding it very difficult to harness the tremendous amount of information and the associated analytical methods to increase organisational performance.

Charan (2005) maintains that organisations are undergoing a revolution in that never before has so much power been computerised and made available so broadly. He goes on to argue that algorithms and their sophisticated software, coupled with new tools capable of collecting and storing huge amounts of raw data, can predict patterns and changes in everything from consumer behaviour to the maintenance requirements of machinery, thus becoming a critical source for enhancing organisational performance and attaining a competitive advantage.

Parker (2016) cites an example where traditional data analysis methods succumbed to the new data analytical revolution. Parker (2016) recalls the 2012 US presidential election, where data and machine learning was utilised to predict the responses to four key questions put forward to swinging voters, namely how likely was each voter to support Obama; how likely was each voter to show up at the polls; how likely was each voter prone to change their mind about the election based on a conversation about a specific issue; and how likely was each voter to respond to reminders. Based upon the results of the analytical model, Obama's electoral team were able to determine which voters to target. In contrast, Obama's opponent used standard polling and targeted broad demographic categories, such as suburban middle-aged women.

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