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# Management Information Systems in the Public Sector

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Management information systems (MIS) are fundamental for public sector organizations seeking to support the work of managers. Yet they are often ignored in the rush to focus on 'sexier' applications. This chapter aims to redress the balance by providing a detailed analysis of public sector MIS. It first locates MIS within the broader management monitoring and control systems that they support. Understanding the broader systems and the relationship to public sector inputs, processes, outputs and outcomes is essential to understanding MIS. The chapter details the different types of reports that MIS produce, and uses this as the basis for an MIS model and a description of the decision-making benefits that computerized MIS can bring. Finally, the chapter describes generic public sector MIS that address internal government transactions, public administration/regulation, and public service delivery. Real-world examples of all types are provided from the U.S., England, Africa, and Asia.

Introduction

Management information systems can be defined as information systems that provide reports which assist the managerial monitoring and control of organizational functions, resources or other responsibilities.

MIS were first developed during the 1950s and 1960s but came into the organizational mainstream somewhat later. There was a rich literature on MIS during the 1970s, continuing into

Figure 1: Monitoring and Control System Model
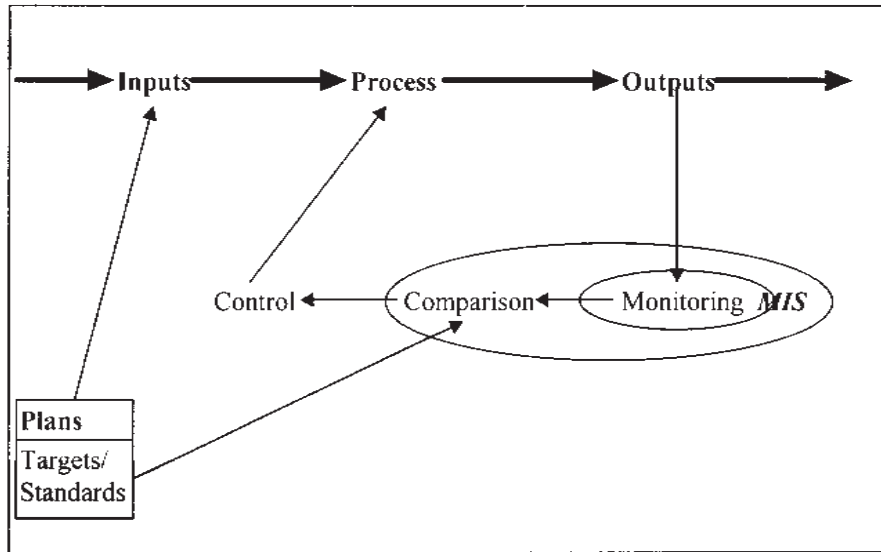
the 1980s (e.g. Davis, 1974; Davis & Olson, 1984). However, the explosion of other organizational applications of IT has led MIS – at least as defined above – to retain only a small foothold in many more recent publications. Despite their book titles, for example, Hicks (1993) devotes just one chapter to MIS, whilst Laudon & Laudon (1998) devote just a few pages. Nonetheless the fundamental importance of MIS has meant some writers continue to provide a broad and deep discussion of the topic (e.g. Zwass, 1992; Lucey, 1997).

Our discussion in this chapter begins with a deeper understanding of the managerial processes that management information systems support.

Management Monitoring and Control Systems

A generic model of a monitoring and control system is shown in Figure 1.

This monitoring and control system consists of four main elements:

- *A process.* At the core of the system is some kind of process that turns inputs into outputs. Let us take the example of a public sector training project that seeks to provide new skills for the unemployed. This project turns inputs of money, equipment and staff labor into outputs of skilled people who are trained via processes of training delivery.
- *A monitoring mechanism.* This mechanism gathers information about the outputs from the process. For example, it would gather information about the number of people trained and the extent of their new skills in the training project.
- *A comparison mechanism.* This compares the information gathered about current performance with information on previously-set plans, benchmarks, targets, etc. These two types of information represent the information needs of the monitoring and control system. For example, this mechanism would

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