

## Chapter IX

# Determining Requirements for Management Support Systems

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### Abstract

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*The nature of managerial work makes the design, development, and implementation of Management Support Systems (MSS) a major challenge. The MSS literature suggests that determining MSS requirements and specification of MSS are the most critical phases in MSS design and development. We present a methodology that can be used as a guide for MSS design, with a primary focus on MSS requirements determination and how requirements can be fulfilled using information and communication technologies (ICT). The methodology builds on Quinn and associates' competing values model (CVM) of organizational effectiveness and current MSS knowledge. The methodology can guide MSS designers in designing MSS that support*

*different managerial roles, i.e. the development of MSS that support managerial cognition and behavior.*

## Introduction

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Management Support Systems (MSS) is a major Information Systems (IS) class. A major problem in MSS design and development is requirements specification. One reason for the problem is that managers perform quite a lot of different roles and activities (Mintzberg, 1973, 1994) and managers' work is not easy to model using traditional modeling techniques, like process modeling. We present a methodology that can be used to guide MSS design, with a primary focus on MSS requirements determination and how requirements can be fulfilled using information and communication technology (ICT). The methodology builds on Quinn and associates' competing values model (CVM) of organizational effectiveness. The presented methodology can guide MSS designers in designing MSS that support different managerial roles, i.e. the development of MSS that support managerial cognition and behavior.

## Background

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Many types of computer-based IS have been developed to support managers, including Decision Support Systems (DSS), Executive Information Systems (EIS), and Group Support Systems (GSS) (Davenport and Harris, 2007). MSS usually refer to systems with a broader set of capabilities than, for example, EIS and DSS. An MSS can include electronic communications, modeling capabilities and organizing tools. In this chapter we use the term Management Support Systems to denote ICT-enabled IS that are supposed to support managers.

Studies suggest that a major problem in MSS design and development is requirements specification (Watson et al., 1997). Studies also show that a legitimate need is a key to MSS success (Fitzgerald, 1993; Watson et al., 1997; Hartano et al., 2007). This paper addresses the issues and problems in MSS design in a novel way. In doing so, we build our work on three postulates.

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