INTRODUCTION

This chapter describes three critically important features for the planning, sustainability and implementation of strategic information systems (SIS). The literature identifies a consistent lack of success by organisations in achieving business benefits from their SIS investments and in particular the difficulties of obtaining a sustained competitive advantage over rivals. There appears to be little evidence that this record has improved as organisations increasingly rely on SIS to support their business strategy. The chapter focuses upon the need for appropriate SIS planning, the role of unique, causally ambiguous ‘isolating mechanisms’ in order to sustain SIS-derived competitive advantages and concludes by summarising the implementation factors deemed to be of real practical importance for the success of large-scale SIS projects based upon recent empirical research. The high failure rate of SIS applications in business is deemed to be largely of a managerial rather than a technical causation (Earl, 1989; Burn, 1993; Galliers et al., 1994; Barnett and Burgelman, 1996; Powell and Dent-Micallef 1997; Willcocks and Lester 1999; Watson et al., 2000). This chapter identifies and considers three components which are critical in this respect to enable an IT strategy fusion with the rest of the business (Papp, 1998).
Earlier studies, for example Long (1987) found that 90 per cent of the failures in office applications were due to organisational problems (poor planning, poor management, lack of training) and only 10 per cent due to technical difficulty. Kearney (1990) reports that following a study of 400 British and Irish companies, only 11 per cent had been successful in their SIS applications when based upon criteria of scope of applications and benefits achieved, project completion on time and return on investment. Morley (1991) claimed that more than a quarter of major SIS projects greatly exceeded budget and were well behind schedule. Clegg et al. (1996) found that 80-90% of IT investments fail to meet their performance objectives, 80% of systems were delivered late and over budget, 40% of developments fail or are abandoned completely, under 40% fully address training and skills requirements, less than 25% properly integrate business and technology objectives and only 10-20% meet all their success criteria. SIS developments have also been difficult to analyse in terms of ROI or on any other accounting basis. The resultant factors may be identified as relating, at least in part, to the planning, sustainability and implementation of SIS. This chapter will consider each factor in turn and consequently attempt to provide practical guidelines for successful IT strategy fusion, as shown in Figure 1.

**SIS PLANNING**

Surveys throughout the 1980s consistently identified SIS planning as a major concern for both user and management (Brancheau and Wetherbe, 1987). SIS planning is the process of identifying the computer-based applications that will assist an organisation in executing its business plans and realising its business goals. The planning focuses upon the sequencing and implementation of SIS applications, as well as the investigation of existing and proposed SIS applications (Sambamurthy

*Figure 1. Strategic Information Systems - strategic fusion*
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