Integration between Business Planning and Information Systems Planning:  
An Analysis of Technology Exploration and Exploitation in Different Value  
Configurations

Petter Gottschalk and Hans Solli-Sæther  
Norwegian School of Management, Sandvika, Norway  
petter.gottschalk@bi.no

Abstract
Integration between business planning and information systems planning has been found to have a significant impact on the extent of information systems contribution to organizational performance. Based on a content analysis of strategic IS/IT plans in Norway, the extent of integration was studied. This paper evaluates ten integration mechanisms and four integration stages. Most of the organizations practiced sequential and reciprocal integration. Furthermore, this paper investigates technology exploration and exploitation in different value configurations. Statistical analysis indicates that value shops and value networks are more concerned with technology exploration than value chains.

1. Introduction
Many firms make large investments in information technology (IT) and information systems (IS) [1], and yet executives often question whether these investments support their strategic objectives, and whether opportunities to exploit IS/IT for competitive advantage are being overlooked [2]. There are both enablers and inhibitors of business-IT alignment [3], and one important area for improved alignment is integration of business planning and information systems planning [4].

This paper presents results from a content analysis of strategic IS/IT plan documents in Norway. The research focus is on identification of integration mechanisms in the plans in general and on technology exploration and exploitation in the plans in particular. Research questions can be stated as: 1) What integration mechanisms are found in strategic IS/IT plans, and 2) To what extent do the integration mechanisms found in strategic IS/IT plans indicate exploitation versus exploration?

2. Integration mechanisms
Although no precise definition of strategic alignment of business and IS/IT strategies has gained widespread acceptance, many authors share a similar general interpretation of the term. Strategic alignment is said to be present when: i) business strategies are enabled, supported, and stimulated by information strategies [5]; ii) the goals and activities of the business are in harmony with the information systems that support them [6]; iii) information systems support organizational goals and activities at every level [7]; and iv) choices within content and process dimensions of IS/IT planning are mutually supportive and the two dimensions themselves are harmonized in a manner that is consistent with competitive strategy [8].

Integration between business planning and information system planning is one important enabler of business-IT alignment [3, 4, 9]. Teo and King [9] found a significant positive relationship between the level of business planning (BP) and information systems planning (ISP) integration and the extent of information systems contribution to organizational performance. King and Teo [10] have suggested a stage of growth model for the evolution of strategic IS/IT planning integration. The first stage is a separate planning with administrative integration characterized by the integration mechanisms in table 1 such as a technically oriented and non-strategic role of the IS function. The second stage is a one-way linked planning with sequential integration characterized by integration mechanisms in table 1 such as performance criteria of business strategy contribution. The third stage is a two-way linked planning with reciprocal integration such as frequent IS executive participation in business planning. The fourth stage is integrated planning with full integration.

3. Value configurations
In the research literature activities [11, 12], resources [13, 14] and technology [15] have been identified as important sources of competitive advantage. Grossmann and Helpman [16] state that the technology can be seen as the engine of growth. What we are about to see is a growing convergence of production, information, and communications technology. The increasing popularity of electronic communications (e.g. the Internet, eCommerce) represents new challenges to conventional exchange of information.