Issues in Corporate IS Planning

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The most prevalent planning models that originated in the late sixties are the rational or top-down models, where the underlying notion of organizational level inputs to the IS plan became accepted as normative. However, with the increasing complexity of the IT environment, the applicability of the top-down model comes into question. In an attempt to place the crucial issue of IS planning in perspective, this paper discusses the top-down models of planning and the other approaches to planning that have become popular over the past decade. Specifically, three additional planning approaches are discussed, namely, the competitive analysis approaches, contingency approaches and the information economy. Critical conceptual issues are then raised on the viability of a simple top-down approach in the future.

A large manufacturer of glass products allowed each of its divisions to develop their own IS plans, with minimum coordination from corporate headquarters. When it was necessary to implement a company wide network, to support the organizational objective of minimization of distribution costs, the company faced major problems in integrating incompatible systems and gaining cooperation from divisional management.

A major financial institution uses its business plan to specifically set the amount and priorities for its IS expenditures every year. It accomplishes this by ensuring that corporate management and IS management work closely with each other.

A large manufacturer of electrical products has developed a planning process that formally engages top management and IS management in brainstorming sessions to discover and evaluate opportunities for using information systems to enhance the company’s competitiveness. The sessions have resulted in systems that improve customer service and subsequently the
firm’s competitive positioning in the marketplace.

These are only some of the examples of American corporations that illustrate the importance of effective IS Planning. In fact, IS Planning has consistently been identified in a series of empirical studies as the primary issue of concern to IS practitioners (Dickson et al, 1984; Hartog and Herbert, 1986; Brancheau and Wetherbe, 1987). Their finding is not surprising, especially considering current trends in the business arena, where information technology (IT) is becoming more pervasive (affecting the day to day operations of all functional areas), more dispersed (decentralized and distributed), more diverse (types of technologies), and is changing at a rate that is unprecedented (Earl, 1984).

Besides the changes in the technology itself, McFarlan, McKenney and Pyburn (1983) identified three trends that have increased the importance of IS Planning which are, the scarcity of IS personnel and other organizational resources, the increasing importance of IT to organizational goals and competitive advantage and the trend towards integrating systems. Possibly subsumed in these trends but meriting its own point is the proliferation of personal computers, and subsequently computing power into the hands of end users which has created more challenges than solutions for IS management. Also, today we can visualize the pervasive nature of IT in not only improving internal productivity but permeating organizational boundaries in the form of interorganizational systems directed toward seeking collective efficiencies and comparative advantage (Johnston and Vitale, 1988). Therefore, planning for Information Systems (IS) is much more critical now, than it was, say thirty years ago where it was not much more than simply the conversion of transaction volumes to IS workload levels.

Unfortunately, the past decade has experienced such rapid changes in both the competitive environment and technology, that research on developing processes for effective planning have been limited. Most of the IS planning literature has focused on providing conceptual frameworks to guide us through the planning process, rather than rigorous methodologies. The most prevalent planning models that originated in the late sixties are the rational or top-down models, where the underlying notion of organizational level inputs to the IS plan became accepted as normative. However, with the increasing complexity of the IT environment, the applicability of the top-down model comes into question.

This paper discusses the top-down models of planning and the other approaches to planning that have become popular over the past decade, in an attempt to place the crucial issue of IS Planning in perspective. Specifically, three additional planning approaches are discussed, namely, (1) competitive analysis, (2) contingency and (3) information economy. It should be pointed out that these “approaches” reflect different orientations toward IS Planning and do not necessarily involve comprehensive procedures or methods. While these approaches may be distinct in their views of IS planning, they are not necessarily inconsistent or mutually exclusive, as will be shown.

The Top Down Approaches

The Top Down Approach was pioneered by Zani in 1970. His paper entitled “Blueprint for MIS” epitomizes this approach, which recognizes the need for planning systems which look down from the top of the organization, a natural vantage point for managers. Similarly, it recognizes the need to identify areas critical to the success of the organization and to develop systems to support those areas, rather than develop systems piece-meal and reactively as extensions to automation from the “bottom-up”.

King (1978) was among the first to recognize the need to link the organizational strategy set with the MIS strategy set, in order to ensure that systems developed would be consist-
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