Convincing Top Management of the Strategic Potential of Information Systems

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Abstract

Recent research has shown that the difficulty of convincing top management of the potential strategic impact of information systems impedes information systems planning. Interviews with 20 top information systems executives revealed reasons for this difficulty and techniques that they use in attempting to overcome it. The results suggest the importance of information systems executives' skills and activities necessary for the selling of information systems products and services. The research also raises three controversial questions for future investigators.

Keywords: Planning, information systems, information management

ACM Categories: K.6.0, K.6.4

1 The authors contributed equally to the design and execution of this research project and article.

Introduction

Traditionally, information systems exclusively facilitated operational and management functions. More recently, organizations have begun to create information systems that can provide a strategic impact and earn substantial profits. Although an expanding literature attests to the growing interest in information systems for strategic impact (Clemons, 1986; Clemons, et al., 1984; Clemons and Kimbrough, 1986; Clemons and McFarlan, 1986; Harris, 1985; Ives and Learmonth, 1984; Jonscher, 1983; King, 1978; McFarlan, 1984; Petre, 1985; Porter and Millar, 1985; Rackoff, et al., 1985; Wiseman, 1985), recent research has shown that top management still needs to be convinced of the potential strategic impact of information systems (Lederer and Mendelow, 1986; 1988). This article explores the reasons for this need and the techniques by which information systems executives attempt to convince top management of this potential.

Conventionally, both practitioners and researchers have assumed that information systems planning is a prerequisite to the development of information systems with strategic impact. Information systems executives recognized the importance of this planning in a 1984 survey when they identified improved planning as their most important issue (Dickson, et al., 1984). In a subsequent survey, Hartog and Herbert (1986) confirmed this. They also found that aligning IS goals with business goals, a presumed requirement for identifying information systems with strategic impact, was the second most important issue. In a third survey, Brancheau and Wetherbe (1987) found that IS strategic planning remained the most important issue among IS executives. They also found that using information systems for competitive advantage, one of the characteristics of strategic impact, was the second most important issue.

Information systems planning, however, is replete with problems. Lederer and Mendelow (1986) identified a number of these. For example, they found that understanding top management's objectives, a prerequisite to effective planning, was deficient (Lederer and Mendelow, 1987). They also found that the effort to convince top management of the strategic impact of information systems impeded planning (Lederer and Mendelow, 1986; 1988). This second finding is especially important because many senior business managers share their objectives.
with their information systems executives only if convinced that such systems have a potentially strategic impact. Hence, convincing executives of this can often be a prerequisite for learning their objectives.

This need to convince top management of the strategic impact of information systems is significant for another reason. Top management's acknowledged responsibility for the development and implementation of the organization's strategy suggests that they should also accept responsibility for fostering information systems with strategic impact.

The purpose of this article is to present research to identify the reasons why IS managers feel it is difficult to convince top management of the potential impact of information systems. The article also reports techniques that IS managers use in attempting to overcome this difficulty.

First, the article examines the meaning and the importance of the strategic impact of information systems. It then describes the methodology and results of the study. After a discussion of the results, implications for practitioners and researchers are offered.

### Meaning of Strategic Impact

This section defines the meaning of the strategic impact of information systems, which is a basis for explaining why top management should be concerned about it. Basically, information systems with strategic impact help an organization realize its goals and objectives. Authors, however, led by Porter (1980), have offered richer perspectives. McFarlan (1984) applied Porter's framework to the information systems environment. In addition, Parsons (1983), Benjamin, et al. (1984), Wiseman (1985), Porter and Millar (1985), and Ives and Learmonth (1984) built on McFarlan's application. Despite these definitions, Clemons (1986) questioned the prevalence of information systems with strategic impact. The following paragraphs now elucidate these perspectives.

Porter (1980) identified three generic business strategies. The first, differentiation, refers to policies and actions to distinguish an organization's products or services in such a way that, industry wide, they are perceived as unique. The second, cost leadership, refers to policies and actions that provide products or services with the lowest outlays of money, time, and labor by the organization. The third, focus, refers to policies and actions that provide products or services to a particular, narrow market.

Porter (1980) observed that organizations use these generic strategies to control various industry forces. The five forces he recognized were:

- the rivalry among existing firms
- the bargaining power of suppliers
- the bargaining power of buyers
- the threat of substitute products
- the threat of new entrants

These observations, however, referred to businesses in general and not specifically to information systems.

McFarlan (1984) applied Porter's (1980) work to information systems. In his view, information systems can have strategic impact if used to:

- build barriers against new entrants
- change the basis of competition
- generate new products
- build in switching costs
- change the balance of power in supplier relationships

Parsons (1983) increased the applicability and scope of McFarlan's (1984) perspective. He suggested that information systems can have strategic impact if used to:

- change an industry's products and services
- change an industry's markets
- change an industry's production economics
- affect a firm's buyers and suppliers
- prevent customers from using competitors' products and services
- preclude new competitors
- alter the degree of rivalry
- support one of Porter's three generic strategies
Benjamin, et al. (1984) added breadth to these perspectives. The authors suggested that an information system with strategic impact need not necessarily affect customers. It can have strategic impact if it merely affects internal operations. Similarly, the authors added that an information system with strategic impact need not involve new products and services. It could strictly involve traditional products and services.

Wiseman (1985) noted that information systems affecting internal operations or traditional products and services will only have strategic impact if they support the “strategic thrusts” of the organization. These strategic thrusts include Porter’s differentiation and cost, along with innovation, growth, and alliance, all of which influence relationships with customers, suppliers, and competitors.

Porter and Millar (1985) incorporated the concept of value with the previous meanings of strategic impact. Thus, an information system would have strategic impact if it had the potential to add value to a product or service in at least one stage of the value chain. The value chain, using Porter and Millar’s terms, comprised inbound logistics, operations, outbound logistics, marketing and sales, and service, along with the support activities of human resource management, technology development, and procurement.

Ives and Learmonth (1984) applied the value chain to the customer’s interactions with the organization. They described examples of systems with strategic impact by showing how they fit into a customer resource life cycle to differentiate the products or services from those of competitors on the basis of customer service.

Nevertheless, despite these numerous definitions, Clemons (1986) questioned the prevalence of such strategic systems by offering several warnings about those claimed to be strategic. For example, better operations might not be strategic; if everyone can do it, competition will not change and the organization will not achieve an impact. He further warned that even essential systems may not be strategic if firms do not differ in their ability to develop and exploit them. Additionally, a strategic impact might not be sustainable; it might merely have a temporary effect until competitors can imitate the information system.

Important of Strategic Impact

Anthony (1965) suggested that top management is responsible for the development and implementation of an organization’s strategy. Since information systems can have a significant strategic impact in the manner suggested by a growing number of authors (Clemons, et al., 1984; Clemons and McFarlan, 1986; Harris, 1985; Ives and Learmonth, 1984; Jonscher, 1983; McFarlan, 1984; Petre, 1985; Porter and Millar, 1985; Rackoff, et al., 1985; Wiseman, 1985), top management also needs to take responsibility for fostering information systems with the potential to provide this impact.

However, Lederer and Mendelow (1986) found that although information systems department (ISD) management believes that information systems can have a strategic impact, convincing top management of that potential impact was a major difficulty. These findings suggested the need for the current study to answer two questions. First, why is convincing top management of the strategic impact a difficulty? Second, what actions does ISD management take to attempt to overcome the difficulty?

Methodology

Given the absence of prior empirical work on these research questions, a “direct” research approach involving a structured interview seemed the most appropriate precursor to a more conventional study relying on a larger sample and a survey methodology (Mintzberg, 1979). The results of the interviews are reported in this article.

The research questions have two perspectives: one from the ISD management view and one from the top management view. Since the current study seeks to understand the ISD management view, senior managers with the ultimate responsibility for planning and managing their organizations’ IS were sought for interviews. Managers were selected from medium to large organizations in a wide variety of industries. Interview appointments were set up by telephone. All contacted managers agreed to participate, indicating great interest in the problem. Table 1 contains profiles of the 20 participating organizations.
Table 1. 1985 Profiles of Companies in the Sample

<table>
<thead>
<tr>
<th>Type of Company</th>
<th>Revenue $</th>
<th>Net Income $</th>
<th>Employees</th>
<th>Other</th>
</tr>
</thead>
<tbody>
<tr>
<td>State affiliated university</td>
<td>.4</td>
<td>N/A</td>
<td>8,000</td>
<td>34,000 students</td>
</tr>
<tr>
<td>Construction supplies</td>
<td>1.4</td>
<td>(.03)</td>
<td>11,000</td>
<td></td>
</tr>
<tr>
<td>Processed food products</td>
<td>4.0</td>
<td>.3</td>
<td>45,000</td>
<td></td>
</tr>
<tr>
<td>Steel producer</td>
<td>19.0</td>
<td>.4</td>
<td>80,000</td>
<td></td>
</tr>
<tr>
<td>Glass and chemicals producer</td>
<td>4.3</td>
<td>.3</td>
<td>37,500</td>
<td></td>
</tr>
<tr>
<td>Natural gas producer</td>
<td>3.2</td>
<td>.2</td>
<td>7,500</td>
<td></td>
</tr>
<tr>
<td>Coal producer</td>
<td>1.5</td>
<td>.1</td>
<td>10,000</td>
<td></td>
</tr>
<tr>
<td>Consumer products</td>
<td>2.0</td>
<td>(.1)</td>
<td>31,000</td>
<td>deposits $18 billion</td>
</tr>
<tr>
<td>Full service bank</td>
<td>N/A</td>
<td>.2</td>
<td>15,000</td>
<td>deposits $1 billion</td>
</tr>
<tr>
<td>Chemicals manufacturer</td>
<td>1.6</td>
<td>.07</td>
<td>6,000</td>
<td></td>
</tr>
<tr>
<td>Natural gas distributor</td>
<td>N/A</td>
<td>N/A</td>
<td>1,500</td>
<td></td>
</tr>
<tr>
<td>Specialty food chain</td>
<td>.3</td>
<td>(.02)</td>
<td>8,000</td>
<td></td>
</tr>
<tr>
<td>Conglomerate</td>
<td>10.0</td>
<td>.6</td>
<td>125,000</td>
<td></td>
</tr>
<tr>
<td>Industry association</td>
<td>.02</td>
<td>.001</td>
<td>200</td>
<td></td>
</tr>
<tr>
<td>Medical insurer</td>
<td>1.0</td>
<td>N/A</td>
<td>1,500</td>
<td>2,600,000 subscribers</td>
</tr>
<tr>
<td>Urban hospital</td>
<td>.1</td>
<td>N/A</td>
<td>2,500</td>
<td>550 beds</td>
</tr>
<tr>
<td>Savings bank</td>
<td>N/A</td>
<td>9.7</td>
<td>1,000</td>
<td>deposits $1 billion</td>
</tr>
<tr>
<td>Privately held construction management firm</td>
<td>N/A</td>
<td>N/A</td>
<td>6,000</td>
<td></td>
</tr>
<tr>
<td>County government</td>
<td>.4</td>
<td>N/A</td>
<td>7,500</td>
<td>1,500,000 people</td>
</tr>
<tr>
<td>Retail drug chain</td>
<td>.7</td>
<td>N/A</td>
<td>7,000</td>
<td>in 20 states</td>
</tr>
</tbody>
</table>

Key: All Revenue and Net Income figures are expressed in billions of dollars. Employees shows number of employees in the organization. Other shows additional miscellaneous indicators of size.

The interviews with the IS executives lasted about three hours. Subjects were promised anonymity. Although a written agenda guided an exhaustive discussion of a wide variety of IS planning problems, techniques, and philosophies, the following questions specifically related to this article were asked: Is convincing top management of the strategic impact of information systems a difficulty that you experience? If so, why? If not, why not? What do you do (or have you done) to overcome this difficulty? All interviews were conducted by both co-authors of this paper. Although each interviewer specialized in one portion of the questionnaire, the other was free to interrupt, seek clarification, and probe further during the course of the discussion. Both interviewers took extensive notes of the entire interview and transcribed them as soon as possible (usually within two days). With the subjects' permission, all but the first interview were recorded on tape, and the tape was used to resolve any discrepancies during transcription.

In 19 of the 20 interviews, the subject was the firm's top IS manager. In the one exception, the interviewee was the general manager of EDP planning, control and telecommunications. In two other instances, the head of the IS function brought one or two members of his staff to participate in the interview. Their additional viewpoints were included in the study because they did not affect research results.

Results

The transcripts of the interviews were studied to identify the issues facing IS managers as they attempted to convince top management of the strategic impact of information systems. Several interviewees gave more than one response. The responses were collated into reasons for top management's lack of support, as shown in Table 2. The techniques, which the interviewees advocated in an attempt to overcome the problems (reasons), are listed in Table 3. The low "Number of Interviewees" mentioning each reason or technique is attributed to the fact that the responses of the interviewees were not prompted with any suggestions.
Strategic Potential

Table 2. Reasons for Top Management's Reluctance to Recognize Strategic Impact of IS

<table>
<thead>
<tr>
<th>Reason</th>
<th>Number of Interviewees</th>
</tr>
</thead>
<tbody>
<tr>
<td>Top management lacks awareness</td>
<td>6</td>
</tr>
<tr>
<td>Top management sees strictly operational use of computers</td>
<td>6</td>
</tr>
<tr>
<td>Top management perceives a credibility gap</td>
<td>5</td>
</tr>
<tr>
<td>Top management doesn't view information as a resource</td>
<td>4</td>
</tr>
<tr>
<td>Top management demands financial justification</td>
<td>3</td>
</tr>
<tr>
<td>Top management is action-oriented</td>
<td>2</td>
</tr>
</tbody>
</table>

Discussion

Sixteen out of the 20 indicated that they had experienced difficulty convincing top management of the potential strategic impact of information systems and shared their thoughts about its causes. Table 2 displays the six major reasons for the problem. They will now be discussed.

Reasons

Top Management Lacks Awareness

Many top managers lacked any involvement in MIS early in their careers. Information technology was not widespread at that time and hence they had little or no contact with it when they worked at operating levels. Since information technology became widespread only after their promotions to positions of wide responsibility, many of these top managers do not realize the scope of the effect of information systems. In fact, even if they experienced information technology early in their careers, rapid changes may have outdated their perceptions of the potential of the technology.

Top management's lack of familiarity with technology sometimes creates anxiety in relating to the issues associated with it. They are simply not comfortable with computing and do not like this discomfort. Moreover, they are reluctant to gain the necessary knowledge. After all, they reached their current positions without it and they do not believe that it will further their careers.

Top Management Sees Strictly Operational Use of Computers

Many top managers take a traditional view of the computer. They see it as a necessary evil. They view it as necessary to increase the efficiency of operations by reducing labor through transaction processing, but perceive it as evil because of its exorbitant costs.

If current uses of information systems are distant from the core operations of the business, the difficulty of convincing top management of the strategic uses of information is more severe. One interviewee expressed this conversely by saying, "The closer you get to manufacturing, the easier it is to be heard."

Top Management Perceives a Credibility Gap

Even when MIS suggests a system that might have significant strategic impact, top management may be incredulous. They do not believe that the system will accomplish its goals because previous systems failed to live up to their expectations in terms of benefits, costs, and implementation schedule. Those previous systems had been oversold.

Table 3. Techniques to Overcome Top Management's Reluctance to Recognize Strategic Impact of IS

<table>
<thead>
<tr>
<th>Techniques</th>
<th>Number of Interviewees</th>
</tr>
</thead>
<tbody>
<tr>
<td>Educate top management</td>
<td>11</td>
</tr>
<tr>
<td>Market ISD accomplishments to top management</td>
<td>5</td>
</tr>
<tr>
<td>Have user do the selling</td>
<td>4</td>
</tr>
<tr>
<td>Promote business image for the ISD</td>
<td>4</td>
</tr>
<tr>
<td>Respond to outside forces</td>
<td>3</td>
</tr>
<tr>
<td>Capitalize on changes in management</td>
<td>3</td>
</tr>
<tr>
<td>Perform ISD planning</td>
<td>2</td>
</tr>
</tbody>
</table>

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Furthermore, top managers perceive the ISD as technical experts rather than business experts. Top managers fail to understand why ISD asks about business goals and strategies. One interviewee quoted a response by his top management to a question about business goals and strategies, “You’re a computer guy, what’s it got to do with you?”

Top Management Doesn’t View Information as a Resource

Information does not have the same characteristics as other resources used by the business. Information is intangible and cannot be used up. As such, top managers do not see its critical role or its centrality to operations. This makes it difficult to appreciate its contribution to the value of a final product.

Top Management Demands Financial Justification

Traditionally, management decisions are based on cost/benefit analysis. Strategic information systems, however, are costly to conceive. There is no well-defined method for identifying them. Such strategic systems planning techniques as IBM’s Business Systems Planning (IBM, 1981) are expensive and time consuming. Moreover, it is very difficult to associate financial value and information systems with a strategic role because these benefits might not be readily visible.

Top Management Is Action-Oriented

Many top managers derive great satisfaction from seeing the immediate results of their actions. In many instances, this drives them to take actions that provide those results. In contrast, activities associated with envisioning the strategic role of information systems do not yield tangible, short-term benefits. Hence, they might not support such long-range planning.

One interviewee described a situation in which the company CEO refrained from making a decision regarding the implementation of a strategic information system because he was close to retirement. He did not want to take the high risk associated with the system. Had it failed, he would have retired with a tarnished reputation.

Techniques

In addition to the reasons mentioned previously, subjects identified seven major techniques to help them convince top management of the potential strategic impact of information systems. Shown in Table 3, these will now be discussed.

Educate Top Management

Many interviewees stated that they use education to convince top management of the strategic role of information systems. They often attempt to use personal education on a one-to-one basis, spanning issues from managing the information resource to computer literacy. The interviewees also make regular presentations to top management and persuade top managers to attend seminars by such firms as IBM. They sponsor departmental programs such as vendor equipment displays. They attempt to increase management awareness by producing white papers which describe the strategic impact of new information technology. One interviewee described how he circulated a published article dealing with practical examples on a monthly basis to management.

Market ISD Accomplishments to Top Management

Several interviewees said that they advertise their accomplishments periodically. Such accomplishments range from the realization of anticipated systems benefits to the implementation of systems on time and within budget.

Some interviewees prepare reports explaining these accomplishments so that their bosses can relay them to the president. One interviewee used independent audits to lend credibility to his claims of success. Another interviewee and his senior managers had a monthly breakfast with the president to promote ISD accomplishments. A third interviewee marketed his services by subsidizing certain systems that he believed would have a strategic impact for the company. This subsidy took the form of free service for 18 months.

Have the User Do the Selling

Some ISDs let their users convince top management of the necessity of information systems for strategic impact. In this way, users champion their own particular systems and fight for top management approval and support of the project. The MIS director of a coal company stressed that he likes to “let the user be the gladiator.”
Users might have strong motives for championing a project. Frequently, users might see a project as offering significant improvements to their department. In addition, the MIS director of a consumer products manufacturer suggested that a corporate climber may see a successful information system as a tool to help make a career leap.

**Promote a Business Image for the ISD**

Several interviewees confirmed the widely recognized need for the ISD to show that it is more concerned about the organization's business than about its own technology. The ISD can do so by consciously communicating in business terms rather than in technical jargon, and by focusing on bottom-line concerns rather than on technical niceties.

**Respond to Outside Forces**

In some organizations, outside influences force top management to recognize the potential strategic impact of information systems. Thus, when top managers see their competitors gain an advantage through the use of information systems, they are more receptive to the ISD's suggestions that information systems can have a strategic impact on their own organization. In addition to being chided by competitors, they are sometimes pushed by lawsuits into collecting information to help defend a position; this also frees managers to run the company rather than defend against lawsuits.

Contacts with vendors and customers also helped to convince top management of the strategic impact of information systems. One organization's purchase of a new telephone communication system forced management to think through their information needs and hence recognize the potential strategic impact of information systems. Another company was forced to adopt electronic data interchange (EDI) technology as a condition of selling to a large customer; this technology could then be applied in other customers.

In one unusual situation, an organization was forced to realize its dependence on information when a hardware malfunction resulted in the tragic loss of 105 records of customer activities. Regulatory authorities threatened to close down the organization. This event convinced the president that information systems played a strategic role in his organization.

**Capitalize on Changes in Management**

Changes in top management inevitably occur through retirements, terminations, etc. Some interviewees noted that these changes offer opportunities because the new executives may be more comfortable with information systems. For example, the new executives at a chemical manufacturer demanded more information systems than the ISD had been able to deliver under previous management. A new CEO of a hospital was comfortable dealing with the high technology of modern medicine, and therefore, the ISD manager felt it was easier to promote the strategic impact of information systems.

Changes in ISD personnel offer the opportunity to reconsider organizational structure. This gives ISD management the chance to argue that they should report directly to the president. One interviewee stated that a precondition to his employment was that he report to the president and participate on an executive committee where he could evaluate the impact of proposed strategic changes on information systems and indicate the role the ISD could play.

**Perform ISD Planning**

The process whereby the ISD develops its plans can help convince top management of the strategic impact of information systems. In one organization, the massive top management participation needed to successfully complete a formal methodology such as IBM's Business Systems Planning (IBM, 1981) forced top management to realize this impact. In another situation, a bank had strategic planners on its ISD staff to identify systems with strategic impact for recommendation to top management. In the same bank, the ISD vice president actively participated in the strategic planning sessions for the entire bank, where he could learn about organization plans, contribute to the corporate environmental scan in the area of technological developments, and make suggestions as to their applicability to the bank.

**Synthesis**

An examination of Table 3 reveals that four of the seven techniques embrace selling. Three of them (Educate top management, Market ISD accomplishments to top management, and Promote business image to the ISD) demand that ISD executives market ISD products and services to senior management. ISD executives must
not only ensure that top management understands ISD products and services, but also that top management believes that the ISD can deliver them correctly, on time, and within budget. One of the techniques (Have user do the selling) demands that ISD executives persuade other managers to join the marketing effort. Indeed, without selling, strategic information systems will not be effected.

**Conclusion**

The results of this study have implications for practitioners and researchers. Although information systems practitioners widely recognize the importance of management skills and activities such as planning and controlling, this research suggests the importance of skills and activities related to selling. Not only must information systems executives have technical and managerial expertise, they must be able to promote and market, and be willing to spend the time doing so.

Also, practitioners may find solace in the realization that other practitioners encounter problems similar to their own. Practitioners might review the “reasons” listed in Table 2 in order to identify the extent to which they, as well as the interviewees, are plagued by these concerns. This might help them adopt tactics to deal with the concerns. In addition, the techniques would help practitioners develop a checklist of potential new approaches to their problems.

Researchers might use these results as a basis to identify the conditions where the difficulty of convincing top management of the potential strategic impact of information systems is more severe and the conditions where specific techniques for correcting this situation are most effective. The conditions might be related to specific industries, organization structures, the history of information systems within the organization, or the management styles of both top management and the top ISD executive. Furthermore, some techniques might be more effective under different conditions.

In addition, our analysis of the interviews prompted three controversial questions. Future researchers may need to consider them as they design their studies.


Many interviewees referred to cost cutting and productivity when they discussed the problems and techniques. It may be that they were referring to the cost leadership strategy and were discussing systems with strategic impact. Alternatively, it may be that they were merely reflecting the traditional, operational approach to justifying information systems. A subjective assessment of interview notes suggested that only a few interviewees, because of their appropriate use of terminology, clearly understood the definitions of Porter (1980), MacFarlan (1984), Parsons (1983), Benjamin, et al. (1984), Wiseman (1985), Porter and Millar (1985), or Ives and Learmonth (1984). However, more subjects may have understood strategic impact within those terms.

On the other hand, many interviewees may have thought of strategic impact simply as “important” or “essential.” If they thought of it merely as important or essential, there is an opportunity for ISD executives to learn about the other definitions to broaden their perspective on the strategic potential of information systems. This might help them generate ideas for such systems. Also important is the knowledge that both researchers and subjects work with the same definitions. This was not important in this study because the research permitted both general and specific definitions. Moreover, the resulting problems and techniques are meaningful regardless of the definition.

2. **Does ISD management know specific, potential IS applications for strategic impact within their own organizations, or do they merely have vague ideas about possible applications?**

The wording of the interview question, “Is convincing top management of the strategic impact of information systems a difficulty that you experience?” did not assume that the interviewees knew specific systems. Rather, it assumed merely that the interviewees recognized the potential strategic impact of information systems.

Two possibilities exist. ISD managers might know such specific systems but simply cannot convince top management to implement them. This would imply a less critical need for proc-
esses to identify such systems but a greater need to convince top management to authorize the resources for their development.

Alternatively, ISD managers might be unable to identify specific information systems with strategic impact. This would raise the following questions: Who should be responsible for generating ideas for strategic systems? Should the ISD, top management, line managers, staff managers, strategic planning department or some combination of them have this responsibility? How should it be done?

In summary, careful consideration would help focus research on either the identification of systems with strategic impact or on the implementation of such systems.

3. Is the concept of IS for strategic impact a means of identifying applications or a means of obtaining resources?

The ISD competes with other departments in convincing top management to allocate it a share of the organization’s scarce resources. In this way, the ISD is no different from other departments. Indeed, every department promotes its own interests.

From a cynical perspective, the concept of information systems with strategic impact might provide ISD management with a convenient means to intimidate top management into allocating desired resources. Without those resources, ISD managers might argue that the future of the company could be jeopardized should competitors implement similar systems. Thus, the concept of information systems for strategic impact might merely be a gimmick for empire building and many researchers might be less interested in the concept.

On the other hand, if thinking about systems in terms of strategic impact helps managers generate ideas for such systems, then the motivation for obtaining the resources may be irrelevant.

References


Petre, P. "How to Keep Customers Happy Captives," Fortune (112:5), September 2, 1985, pp. 42-46.


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