

: How can managers identify opportunities to create innovative DSS?

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Once a manager believes it is possible to gain significant benefits or even a competitive advantage from building an innovative DSS, then a systematic search process is needed to identify opportunities, significant decision process problems and decision maker needs. Some creativity and forward thinking is important, also much can be gained from systematic process audits (Power, 2002), working with consultants, and brainstorming sessions.

A cursory review of articles indicates there are many planning processes and analysis frameworks that might help find decision support opportunities (cf., Neumann, 1994). An information systems planning process should provide a systematic method of searching for and evaluating IS/IT opportunities including decision support. The IS/IT planning must be linked to business-level strategic planning and the process should be ongoing and open-ended. Managers need to collect competitive intelligence, fund DSS research and development projects, conduct regular brainstorming sessions, and in some cases follow hunches and intuition about using technology to improve or speed-up decision making.

A good technology planning process should examine the technology infrastructure to determine what is currently possible and examine enhancements that would facilitate or enable new decision support capabilities. Decision support planning should involve broad consultation and both problem-oriented and opportunistic search. DSS do not always solve specific problems; rather DSS may create new capabilities for customers, suppliers or even members of the Board of Directors of a company. Evaluating DSS opportunities is sometimes difficult because of problems with assessing costs and benefits and that difficulty can not be avoided. A good description of the new capability and a scenario explaining the use of the DSS may help in understanding the benefits. In some situations the opportunity analysis will be directed to a buy decision because industry-specific decision support packages are available. This type of

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off-the-shelf DSS

may be needed but the resulting DSS will not be innovative and it probably will not provide a major benefit or competitive advantage.

One approach for finding innovative decision support opportunities is to monitor technology trends and identify decision support system innovations in other industries or in consumer markets. The success of Apple Computer's iPhone suggests that a device with easy to use web surfing and integrated communications may be ready for developing decision support applications.

Another approach is to identify the tactical and strategic decisions that make a major difference in the success of the business, then focus decision process review and monitoring efforts on those decisions. Sometimes a close examination of "how" a decision is made creates insight and an "ah ha" experience that leads to decision support innovation.

Also, asking employees for suggestions about ways to improve decision making may highlight opportunities. The employees who observe results, suffer from poor processes or hear the "wrath of customers" may have insights that lead to decision support innovation.

Finally, talk to vendor salespeople. This is useful, but managers need to keep in mind the inquiry is initiating a selling process. The vendor representative shares what s/he knows about "best practices" to help identify the manager's needs for decision support. The salesperson will be trying to identify a major need and "gap" in current decision support. Once that "gap" between existing and desired decision support is identified, a good salesperson will try to identify solutions his/her company has that can fill all or part of the "gap". At some point, a vendor representative will explain how the manager can solve the decision support "gap". Remember the vendor salesperson's goal is selling software and services and having a "satisfied" customer. The best customer for computerized decision support is a knowledgeable manager who asks good questions.

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The ultimate decision to invest in a DSS project should be based on many factors and not just project risk. Sometimes, the DSS project that is most likely to result in a competitive advantage is the riskiest project (cf., Applegate et al, 1996).

Decision support technology is changing and evolving very rapidly. MIS managers, business managers and academics face a difficult challenge trying to stay abreast of those changes and to make good, informed decisions about building and maintaining DSS for organizations. The goal at DSSResources.com is to provide an integrated, authoritative source of information relevant to building, choosing and understanding computerized Decision Support Systems.

Managers must determine who a proposed DSS will support and whether they will use the DSS. Also, managers must know what result is desired from using an innovative DSS. The bottom line: an innovative DSS should create value.

As always, your comments, suggestions and questions are welcomed.

References

Applegate, L., F. W. McFarlan and J. L. McKenney. Corporate Information Systems Management. Chicago, IL: Irwin, 1996.

Neumann, S. Strategic Information Systems: Competition Through Information Technologies, New York, Macmillan, 1994.

Power, D. Decision Support Systems: Concepts and Resources for Managers, Greenwood/Quorum, 2002.

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