

: Does an “information culture” encourage adopting and using decision support technologies?

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Supposedly, the phenomenon of an “information culture” influences why some organizations adopt innovative information technologies faster and more effectively than others. For example, Curry and Moore (2003) define information culture as "a culture in which the value and utility of information in achieving operational and strategic success is recognized, where information forms the basis of organizational decision making and Information Technology is readily exploited as an enabler for effective Information Systems" (p. 94).

Marchand (1995) referred to the capacity of managers in an organization to use information as its "information culture". Information culture is defined by Marr (2005) as "the values, attitudes, and behaviors that influence the way employees at all levels in the organization sense, collect, organize, process, communicate, and use information". In general, culture refers to shared assumptions, beliefs and ideas of a group. Information culture would then refer to shared assumptions, beliefs and ideas about the value of obtaining, processing, sharing and using information in decision-making and organizational management.

Rick Tanler, who founded Information Advantage, identified four different information cultures. In a Decision Wire column titled “Becoming the Competitor All Others Fear”, Tanler (1999) stated “The four information cultures are Spectator (observes changes within their market); Competitor (initiates change within their market); Predator (attacks market principles); and Information Anarchy (the dysfunctional information culture).”

Tanler noted in that same column that “Almost every data warehouse is justified to senior management in terms of the competitive advantages that will accrue to the enterprise if better information is available to decision-makers.” Tanler argued the Competitor Culture will encourage managers to develop better information systems and that will lead to better decisions and better corporate performance. This conclusion is very optimistic ... and it assumes that initiating change always leads to positive outcomes.

Also, Tanler argued many companies have a Spectator Culture and need to move to a Competitor Culture. Tanler believed the “difference between the Spectator Culture and the Competitor Culture is that the former focuses on decision-support (What information do users need?) and the latter focuses on decision-implementation (What are users doing with the information?).”

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Tanler's four culture categories create a “buzzword” approach to organizational change. It sounds like he is really concerned about how to design systems rather than about culture. Certainly we need to ask what are and what might users do with information and how can we better support their decision-making. Building a DSS is much more than asking potential users what information they need. Relying on managers to “divine” what information will be or is needed won't work; such an approach is much too passive to succeed.

Tanler noted that developers need to examine the “role of information within the context of the entire decision cycle.” We need to understand what a decision cycle is to bring about this change. In the management and decision making literature, a decision cycle or process starts with the identification of an opportunity or recognition of a problem. The cycle includes analysis and formulation of decision alternatives. The cycle also includes approval of a decision and communications and actions needed to implement the decision and measure its impact.

Tanler argued the “objective is to compress the decision cycle”. He concluded that by “moving from a Spectator Culture to a Competitor Culture, an organization can make smarter decisions in shorter cycle times to ultimately become the competitor that all others fear.” Reducing the cycle time is a desirable goal, but in and of itself a shorter decision cycle does not improve decision making and if decision support is provided inappropriately to reduce cycle time, then decisions can be negatively impacted and results will be much worse and not better.

A number of other authors have identified and proposed information culture typologies. Marchand (1995, p.15) identified four types of information culture: 1) Functional culture: managers use information as a means of exercising influence or power over others; 2) Sharing culture: managers and employers trust each other to use information to improve their performance; 3) Inquiring culture: managers and employees search for information to better understand the future and ways of changing what they do to align themselves with future trends/directions, and 4) Discovery culture: managers and employees are open to new insights about crisis and radical changes and seek ways to create competitive discontinuities. Davenport (1997, p.84) distinguishes the following types of information culture: 1) Open or closed; 2) Factually oriented or rumour and intuition-based; 3) Internally or externally focused; 4) Controlling or empowering; and 5) Having preferences for information channels or media.

We need to maintain a humble attitude when our goal is to improve human decision behavior. Decision-making is as much art as science and we may be able to inform decision-making with facts and analysis. In my opinion, a positive information culture encourages active information use and

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recognizes that technology can help with a variety of decision tasks and can speed up the clerical side of those tasks, but that people remain the thinkers and decision makers who must assume responsibility for organizational actions. Businesses aren't intelligent, people are. Decision support has to focus on helping managers make decisions.

An information culture may be a real "phenomenon", but Tanler's ideas on information culture and successful implementation of technologies to support decision making is at best anecdotal. Perhaps there is a proactive, decision support and analytics organizational culture. Perhaps information culture determines technology adoption, but perhaps technology adoption reinforces the existing information culture. Culture is challenging to alter and change. Is there evidence supporting the claim of information cultures? If so, is there evidence on the consequences?

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