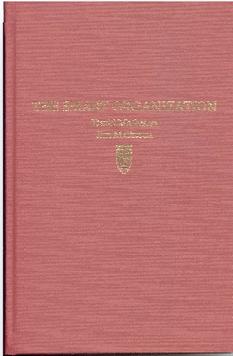


## **The Smart Organization: Creating value through strategic R&D, by David Matheson and Jim Matheson**

*A book review by Ian Jay*

An organization is positioned to make a competitive bid for capital assets; however the prime concern is that the bid does not 'over price' the assets. After conducting a number of profitability evaluations, the bid is submitted. The team are shocked when the outcome reveals a competitor has bid over three times as much and as a consequence has taken a leading position in the industry.

Situations where an organisation tries to pick the 'winning' project are not unusual. In many cases however, the approach to decide on the winner is fatally flawed. The authors of this book explain why and also explain how to address the problem.



Decision makers faced with selecting a project from alternatives have a problem significantly different from that of most operational managers. In operational settings it is possible to make a choice and the short time between making a change and observing the result provides feedback that enables adjustments to be made. This is the typical situation that quality management approaches are designed to deal with.

In contrast to operational decisions, project decisions are followed by an extended period before any feedback on the decision is available. This is the typical situation faced by product development and R&D managers. The 'single loop learning' cycle used in quality management is unable to address such a situation. Managers have to ensure that the decision making process itself is of a standard that maximises the prospect of success. This requires something known as 'double loop learning', and entails embedding organization processes and cultures that support high quality decision making.

The authors of this book surveyed over three hundred organizations in a variety of industries. These ranged through petrochemicals, nuclear power, and engineering, manufacturing, to information technology. Within this sample a set of twenty two organizations exhibited unusual levels of success, and these top performers were examined in more detail. The research revealed forty five practices that could be grouped into nine areas. Not all companies had all forty five practices, but all had some of them. These practices were supporting the R&D decision making processes.

From their research, the authors have developed a model that describes nine principles they found in successful organizations. The core of the book is devoted to explaining these principles in some detail. This includes illustrations drawn from experience. Each principle is described in terms of the underlying philosophy it represents, its meaning at a personal level for employees, the organisation culture implications, as well as the systematic processes needed to ensure it is sustained.

An example of one of the principles is 'create alternatives'. The philosophy behind this principle is to generate several good alternatives, and then evaluate and select from the outcome. At the personal level, organization members are routinely required to produce several good alternatives for each major decision the organization is faced with. For this to work, the culture of the organization must be receptive to creativity and new ideas. It also has to be supportive of this in practice. The authors cite a number of cases of failure; they point out that "organizations need to learn to evaluate alternatives honestly and without prejudice".

The book includes two chapters that integrate the principles with conventional planning systems. The first of these chapters covers the decision process as it relates to technology strategy. The second explains how the principles integrate with project portfolio management. Of particular interest is the need to divorce individual project manager's fortunes from one project in a wider portfolio, and link their performance to that of the portfolio itself. This change is needed to address the 'bet on winners', or 'pick the winner', practices common in poorer performing organizations. As the authors point out,

picking winners means dropping many other potential winners. This may significantly alter the fortunes of the organization.

The concepts described are portable. The authors explain how they have been utilized in the film industry to deal with the 'pick the winner' problem described above. Other industries where the approach has been adopted are also described. These are as diverse as tar sand mining, car manufacturing, capital investment decisions and bidding projects.

The book provides a survey tool which can be used to assess the presence of the nine principles within an organization. The text provides a model that integrates quantitative and qualitative methods in a systematic way. The author's main goal is to assist readers faced with product evolution and replacement problems. However, the content may also provide the basis for local research into decision practices in different sectors of industry. Finally it offers advice to anyone involved in managing a portfolio of projects.

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