

PUZZLE OF THE MONTH

A New Business Thrust... or Bust?

We are pleased to bring you the second edition of Breakthroughs in Knowledge Management. Last month we said that Knowledge Blocks and the Market Value System can be used to solve complex technology, market and business puzzles. In this and succeeding issues, this column will describe a puzzle of the month.

Frequently, companies launch strategic thrusts without the benefit of Knowledge Blocks. Defining the puzzle to be solved and describing the Knowledge Blocks that are needed to solve the puzzle should always be the first thing to do.

The Puzzle

A multibillion dollar Fortune 100 Corporation thought that a manufacturing process was not only strategic to its primary business but also had the potential to become a major new business thrust.

To ensure success in both of these endeavors, the Corporation ought to define and evaluate all possible alternatives for accomplishing the function of the strategic manufacturing process.

In addition, the Corporation ought to define the optimum process technology that would establish the Corporation as the Market Value leader of the process technology for a major industry.

The Corporation also ought to forecast the market and complete a financial analysis that establishes, with certainty, that the

Corporation will be able to achieve an attractive return on their R&D and capital investments.

The Corporation ought to know in advance that every component of the manufacturing process they intend to develop can be reduced to practice and be able to achieve optimum performance and financial parameters.



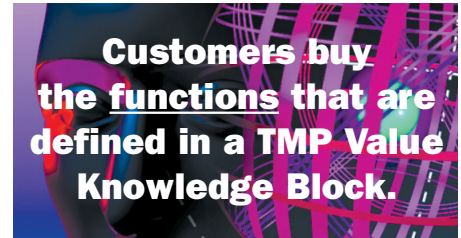
KVC's extensive website provides an in-depth look at the many ways to apply the power of Knowledge Blocks to your business - www.kestingventures.com

To solve this puzzle, the Corporation requires three Knowledge Blocks, which should be created before significant investments are made.

- 1. A managerial accounting and engineering Knowledge Block** that evaluates all possible process alternatives and defines the optimum process.
- 2. A TechnoMarket Performance (TMP) Value Knowledge Block** that evaluates the TMP Value of the Corporation's primary product after the auxiliary manufacturing process has been installed in one of its plants.

3. A Market Knowledge Block that forecasts the markets for the Corporation's primary product and the manufacturing process.

Creating Knowledge Blocks **before** significant investments are made dramatically increases the probability of success.



TechnoMarket Performance (TMP) Value is a Knowledge Block that links all of a product's properties together and correlates them with functional value for a product's use in a specific application. **TMP Value is the product.** This is what customers purchase and not the specific widget that embodies the properties.

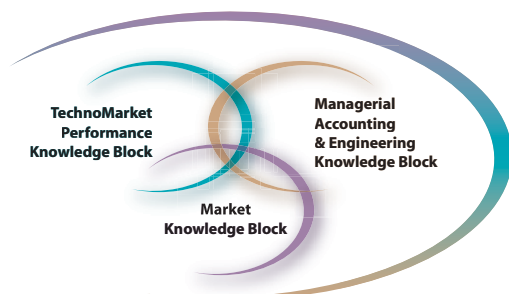
TMP Value enables competitive and conceptual products to be compared in great detail and matched with optimum property profiles that meet the long term needs of specific markets. Without a complete TMP Value model and companion glossary, it is improbable that the long term needs of a market can ever be determined.

A TMP Value glossary is a complete market dictionary of primary and secondary properties. Most products and/or services have forty (40) or more specific properties that are evaluated in a TMP Value Knowledge Block.

Optimum TMP Value is the property level beyond which the market will not be able to observe further improvements.

TMP Value Gap is the difference between the TMP Value optimum and the current TMP Value of the leading products.

Many materials companies tell us that they really don't fully understand why their customers purchase their materials. Some companies tell us that they throw their materials over their customers' fences and from then on they are not fully aware of how their customers use their materials. **KVC believes that every player in a Market Value Chain ought to have a TMP Value Knowledge Block.** ■



Three different Knowledge Blocks were required to solve the puzzle

A Case Snippet: When should you create a TMP Value Knowledge Block?

An Executive Vice President of a large materials company believed that his company could develop materials for a target industry because the required know-how, skill sets and technology were similar to that which was used to develop materials for the company's primary industry.

He launched a strategic thrust based on his vision. Since the company didn't have a product line for the target industry, it looked for, found and acquired a small company that claimed it had breakthrough materials. Some products and an R&D department were added and a new division was formed. After two years, the acquired technology and products failed. However, new materials that were being developed by R&D showed excellent promise. Development work lasted about five years only to learn that the new division didn't have the basis for commercial success.

The company's board lost patience, disbanded the division, terminated new hires

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and transferred the R&D department back to the corporate R&D center.

A sales manager became the caretaker for the products that the primary division manufactured for the start-up division. The goal was to keep some activity alive just in case one or more of the fledgling materials took off.

As luck may have it, within six months the sales manager obtained a million dollar order for one material. Management was

interested again because this might mean that the vision of a new profitable division might still become a reality.

A technology audit was commissioned to determine whether the successful material was a breakthrough. A TMP Value Knowledge Block was created and it revealed that the million dollar sale was due to the skill of the sales manager because a number of commercially available materials could have been used to achieve similar or even better results.

The TMP Value Knowledge Block also revealed that there was a significant TMP Value Gap that, if overcome, constituted a Market Value breakthrough. The detailed TMP Value Knowledge Block, which could have been created seven years earlier, stimulated the parent company's R&D scientists to create new materials that could easily overcome the TMP Value Gap. **The original R&D Team had been working on improving the wrong properties.**

The Executive Vice President's vision was proven to be sound and it could have become a reality. However, after seven years of failed effort and more than \$50 million, management didn't have the confidence to begin again. Today, the company's breakthrough technology remains on the shelf. ■

breakthroughs in knowledge management

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About Kesting Ventures

Since 1982, the mission of Kesting Ventures Corp. has been to develop, improve, record and facilitate the problem-solving methodology required by R&D, marketing and commercial development specialists.

The powerful problem-solving methodology of Experiential Modeling embodied in KVC's Extend® and Start® Programs enable your organization to form specific operational plans for entire businesses, envision and then invent new products and technologies — even renew the growth of existing businesses.

The Rank Order Principle

The rank order equation predicts the rank order of market alternatives after all market forces reach equilibrium. For example, when a new player enters a market, there are immediately two alternatives. When a market behaves like a 2-player market, the rank order equation predicts that the market will equilibrate at 75% share for the market value leader and 25% share for the number 2 player.

The primary use of the rank order equation is to raise questions concerning market shares. We have found that most markets agree with shares that are predicted by the

rank order equation and there is always a good reason for deviations. The rank order equation does not predict which player will ultimately lead after all market forces equilibrate.

The number of players is different than the number of alternatives. For example, if the No.1 player has 75% market share and 9 other companies share 25%, the market behaves like a 2-player market. The last player in a market value chain must be "all other."

We invite you to visit our website, www.kestingventures.com, where you can download a PowerPoint presentation concerning the "Rank Order Principle." ■

Market Value vs Market Share

CURRENT			FUTURE		
Rank	Market Value	Market Share	Rank	Market Value	Market Share
Optimum	117.5		Optimum	117.5	
No. 1	87.5	42.0%	No. 2	92.5	45.7%
No. 2	92.5	28.5%	No. 1	87.5	25.7%
No. 3	85.0	15.0%	No. 3	85.0	15.0%
No. 4	82.0	11.5%	No. 4	82.0	11.5%

The Rank Order Principle predicts how the No. 2 Player can become the No. 1 Player by proving to the market their product has a higher Market Value