

'Research Patterns' Continued PART 3 OF 3

This issue of Breakthroughs is the final installment of our three-part 'Research Pattern Series.'

All past issues, including Breakthroughs Vol. 2, No. 3, March 2004 (Introduction to Research Patterns), and Breakthroughs Vol. 2, No. 6, June 2004 can be downloaded from KVC's website www.kestingventures.com.

KVC's services utilize the methodologies we have developed during the past 20 years to harness the reasoning ability of people, who are working in the frontier of businesses, technologies and markets. The goal is to help our clients create new tangible blocks of knowledge that can be used to solve complex business, technology and market puzzles and forecast future market behavior.

KVC has helped its clients solve many hundreds of complex business, technology and market puzzles. Through this work, KVC has learned that there are eight (8) research patterns that describe most, if not all, business, market and scientific research.

Research Patterns describe the form of arguments for different business, market and scientific puzzles. Breakthroughs Vol. 2, No. 2, February 2004 pointed out that the first step to solve business, technology and market puzzles should be to formulate rational arguments to prove or falsify propositions. KVC's Research Patterns help people formulate their rational arguments.

The fact that there are only eight research patterns means that there are at most only eight argument forms that describe most business, market and scientific puzzles. Businesses, technologies and markets may differ but business, market and scientific research puzzles can be categorized into a much smaller number of argument forms.

Research Patterns are important because compound syllogisms (argument forms) that are developed for one business readily apply to other existing and new businesses.

And knowledge block structures that have been designed for one business can readily be modified for other existing and new businesses. ■

Research Pattern F

RESEARCH PATTERN F describes short term programs for direct manufacturing support. Managerial accounting and/or engineering programs to enable plants to understand and optimize manufacturing costs are included in this pattern.

Research Pattern F Form of Argument

Conditional Proposition: Companies that have managerial accounting and/or engineering programs to enable their plants to understand and optimize manufacturing costs are usually the low cost manufacturers of their strategic products. This is a known truth.

Categorical Proposition: The Company has managerial accounting and/or engineering programs to enable their plants to understand and optimize (minimize) manufacturing costs.

Logical Conclusion: Therefore, The Company has the opportunity to be the low cost manufacturer of its strategic products.

Research Pattern F Guidelines

1. Research Pattern F programs are best managed by a plant's technical staff unless special skills are required or a short term task force is appointed.
2. There's a high probability of success for 80% of the objectives of Research Pattern F programs. Avoid excessive spending on distractions that suggest going after the 20% balance, which is best handled by EVOP programs.
3. Develop managerial/engineering knowledge blocks that describe The Company's strategic processes. Use these knowledge blocks to provide cost accounting checks and balances. Plant technical staffs should use the knowledge blocks to increase professional productivity.
4. Hold periodic technology exchange meetings that enable plant technical staffs to communicate with each other.
5. Don't forget that technology should also be viewed as levers that produce and control properties.

Research Pattern F Knowledge Blocks

- Managerial/engineering knowledge blocks that describe the Company's strategic processes.
- Competitive intelligence (CI) knowledge block to prove that the Company will become the cost and economic value leader in its target markets. ■



Pattern A: Programs to enter or increase share of an existing market with new products that have cost and/or performance advantages.

Pattern B: Programs to create a completely new-to-the-company market or to revolutionize an existing market so that it becomes a new market.

Pattern C: Programs to increase profitability or market share based on cost reduction and/or pricing. Manufacturing cost competitive intelligence programs are included in this pattern.

Pattern D: Programs to develop a new material to replace an existing material, which is in short supply and/or increasing in cost. This pattern includes programs to satisfy needs created by legislation or some other external force.

Pattern E: Exploratory programs to develop fundamental knowledge. Knowledge management programs to create knowledge blocks are included in this pattern.

Pattern F: Short term programs for direct manufacturing support. Managerial accounting and/or engineering programs to enable plants to understand and optimize manufacturing costs are included in this pattern.

Pattern G: Programs based on a unique forecast of an emerging market and/or technology. Programs to create new-to-the-world markets are included in this pattern.

Pattern H: Programs based on developing a new material that has not been commercialized because an economic manufacturing process has never been developed. This pattern is a variant of Pattern B. ■



Research Pattern G

RESEARCH PATTERN G describes programs based on a unique forecast of an emerging market and/or technology. Programs to create new-to-the-world markets are included in this pattern.

Research Pattern G Form of Argument

Conditional Proposition: There is a direct correlation between a unique forecast of an emerging market that is supported by,

- market models,
- logical arguments,
- knowledge blocks, and
- the success of programs aimed at being among the market value leaders of the emerging market. This is a known truth.

Categorical Proposition: The Company has developed a unique forecast of an emerging market that is supported by market models, logical arguments, and knowledge blocks.

Categorical Proposition: The Company has launched a Start® Program, or its equivalent, to be the market value leader of the emerging market.

Logical Conclusion: Therefore, there is high probability that the Company will become the market value leader of the emerging market.

Research Pattern G Guidelines

1. A fundamental conditional proposition is that the Company has envisioned a unique view of a potential market. Do everything possible to encourage using this unique view as a creative stimulus to launch the initial phase of a Start® Program.
2. When the initial phase of the Start® Program is complete the program should be managed as a Research Pattern B program.
3. Assemble the components of the Company's product and/or service portfolio as soon as practical after the Company's business blueprint has been approved. This action will probably establish the Company in some existing businesses.

4. Manage the program for period (usually annual) profitability. Independently track the market.

5. Aim to track value and consider selling or spinning off the business at the proper time.

Research Pattern G Knowledge Blocks

- Market Value knowledge blocks that prove that advances made possible by the new product portfolio will establish the Company as the market value leader in the envisioned market.
- Technomarket Performance (TMP) Value knowledge blocks to prove that the new product portfolio approaches optimum TMP Value in the envisioned markets.
- Economic Value knowledge blocks to prove that the new product portfolio provides the envisioned market with the best economic value of all possible alternatives.
- Influence knowledge blocks to prove that the Company has the influence to be the market value leader in its envisioned market.
- Market Value knowledge blocks that spell out the Company's financial plan. ■

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About Kesting Ventures

Since 1984, 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.

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Research Pattern H

RESEARCH PATTERN H describes programs based on developing a new material that has not been commercialized because an economic manufacturing process has never been developed. Research Pattern H is an illogical pattern. Research Pattern H includes all illogical research patterns.

Research Pattern H Form of Argument

Conditional Proposition: The primary reason why Material (N) has not been commercialized is that an economic manufacturing process has never been developed. It is highly probable that this conditional proposition is fallacious. The proposition must be proven before making an investment.

Categorical Proposition: Company (R) has developed an economic manufacturing process to make Material (N). It is highly probable that this categorical proposition is fallacious. If Company (R) really has an economic manufacturing process to make Material (N), why hasn't Company (R) commercialized Material (N)?

Company (R) Conclusion: Therefore, Company (R) should develop its manufactur-

ing process to make Material (N). The fallacy of this conclusion is apparent.

Research Pattern H Guidelines

1. A discussion of research patterns would be incomplete without mention of illogical patterns. The conditional proposition is that success has not occurred because an economic process has never been developed. If success depends only on economics, the product would begin as a commodity. Economics is always an important component of market value, but it is rarely the primary reason why a product has not been launched.
2. Formulating the argument form for Research Pattern H programs usually results in switching to a Research Pattern B program.

Research Pattern H Knowledge Blocks

- Market Value knowledge blocks that prove new materials could enable the Company to become the market value leader in target markets when and if the Company could safely manufacture the material and achieve optimum economic value in target markets. ■

Kesting Ventures 'Research Pattern Series'

Logic: The Rational Science

Breakthroughs Vol. 2, No. 2, February 2004

Introduction to Research Patterns & Research Patterns A and B

Breakthroughs Vol. 2, No. 3, March 2004

Research Patterns C, D and E

Breakthroughs Vol. 2, No. 6, June 2004

Research Patterns F, G and H

Breakthroughs Vol. 2, No. 7, Dec. 2004