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The
Power
of the

2x2

Matrix

Using 2x2 Thinking to Solve Business
Problems and Make Better Decisions

Includes more than 50 classic
models for strategic, organizational,
and personal decision making

BCG: Product Portfolio Matrix

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- Step 3: Monitor progress on a quarterly or monthly basis to measure success. Implement corrective actions if results are unacceptable.

These are the steps for portfolio modeling:

- Step 1: Define. Place each of the businesses on the matrix, positioning them in the appropriate quadrant.
- Step 2: Diagnose. Stepping back from the matrix, reflect on the current mix, considering such factors as overall balance, profitability and return on capital, diversity, interdependencies, competency development, and investment in new, future sources of profit.
- Step 3: Envision. Adjust the mix to reflect a strong current and future set of businesses.
- Step 4: Follow up. Monitor to ensure that the businesses perform as planned and continue to represent the values ascribed to them.

Reference

Slywotzky, A., and Morrison, D. *The Profit Zone: How Strategic Business Design Will Lead You to Tomorrow's Profit*. New York: Times Business, 1997.



BCG: Product Portfolio Matrix

Bruce Hendersen

The framework is simple on the surface, but has a lot of hidden depth. It's when you get into the depth that you discover both its power and flexibility.

—Simon Trussler⁴⁰

Mention “2 × 2 matrix” to someone in a business context, and more often than not, that person will think of the BCG Grid. The names of the four quadrants—Dogs, Stars, Problem Children, and Cash Cows—have become standard popular terms and a convenient shorthand in strategic discussions. What has made the framework so powerful and enduring is its amazing breadth; not only is it a method for structuring strategic priority-setting discussions, it also represents a business typology, making it possible for planners to think about a portfolio of holdings from an investment perspective.

BCG founder Bruce Hendersen created the Product Portfolio matrix (Figure 6.35) in the early 1970s to assist conglomerate organizations to analyze the relative worth of their different business units, subsidiaries, and products. Not only did it help to establish BCG as a leader in the strategy consulting domain, it

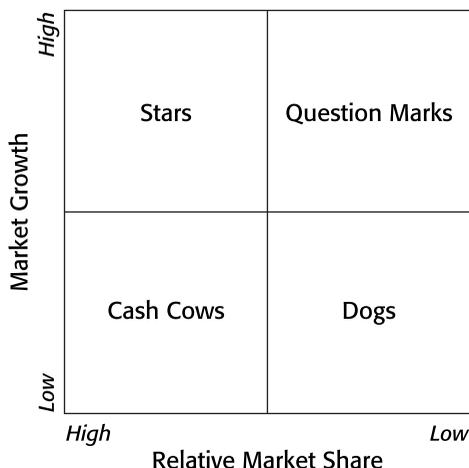


Figure 6.35. BCG Product Portfolio Matrix

played an important role in defining and legitimizing strategy as a management discipline practiced by professionals and consultants.

The Two Dimensions and Their Extremes. The framework combines quantitative and intuitive features to produce an accurate and consensual picture of the investment worthiness of different business holdings. Each business unit is assessed with respect to its market (Market Growth) and then compared to the other business units owned by the conglomerate firm (Relative Market Share). Relative Market Share and Market Growth form the basis for analysis:

Market Growth. Market Growth serves as a proxy for cash requirement. A market that is expanding rapidly requires more investment to maintain a competitive position.

Relative Market Share. Relative Market Share is a proxy for cost competitiveness and is derived from an essential BCG concept, the Experience Curve, which calculates the costs of production as a function of learning and size. Relative Market Share is determined by dividing the percentage of market held by a firm by the percentage held by its largest competitor.

The Four Quadrants. The portfolio approach brings rationality to the business investment process. Business units and markets proceed through a predictable cycle of maturation, which needs to be factored into decision making:

- Upper left: Stars. These are the high fliers—businesses with a high relative market share in a growing market. However, they still require investment to

maintain market share, so they might not be as profitable as Cash Cows. They might even need more investment than they return in profit (resulting in a short-term net loss). But these will be tomorrow's Cash Cows providing market share is maintained.

- Lower left: Cash Cows. The darling of the aging executive and owner alike, these businesses have high market share in a market with low growth. Maintaining current operations becomes the main cash requirements for this mature business. Like a great wine or cheese, it has cellared sufficiently and is ready to be harvested for profits as cash flow remains positive.

- Lower right: Dogs. Dogs are businesses with low market share in low-growth markets. The market may or may not be in decline. Despite the temptation to divest, dogs can have significant advantages, depending on market conditions. For example, the market might be positioned to grow, redefining potential worth. Or the business might be cash flow positive and capable of being restructured to maintain positive cash flow for a significant length of time. The business might also have significant strategic or brand importance, meriting retention to fend off competitors as a "guard dog."

- Upper right: Question Marks (or Problem Children). These businesses compete in high-growth markets, but they have a relatively low market share and may need significant investment to improve their position. Consultants tend to like clients who own a few of these (and the pockets to pay fees), as careful analysis is needed to determine if it is best to invest more, sell the business, or reposition to focus on a specific market niche (among other options).

Example: Dow versus Monsanto. "In the 1960s and early 1970s," write George Stalk and Thomas Hout, "a classic portfolio battle was waged by Dow Chemical against Monsanto. In this battle, Dow actively managed its portfolio for advantage, and Monsanto did not."⁴¹

Firms that reinvest based on profitability alone risk overspending on mature business lines while under-funding those in early stages of growth. It was not uncommon in the 1960s, however, for large multi-business companies to approach the market with a profit center orientation that did exactly this. Companies like GE and Westinghouse were leading practitioners of the strategy, promoting business unit accountability and rewarding financial results with independence and growth capital. During this period, Dow approached the market with the portfolio strategy reflected by the BCG Grid, while rival Monsanto pursued the prevailing profit center approach (Figure 6.36).

Monsanto began the period with the stronger portfolio. Seven of its businesses were facing growth in demand greater than 20 percent, as compared with Dow, which had only two businesses in this position. Following a course of reinvesting based principally on proven success and profitability, Monsanto overlooked emerging trends and opportunities. Of fourteen businesses growing at

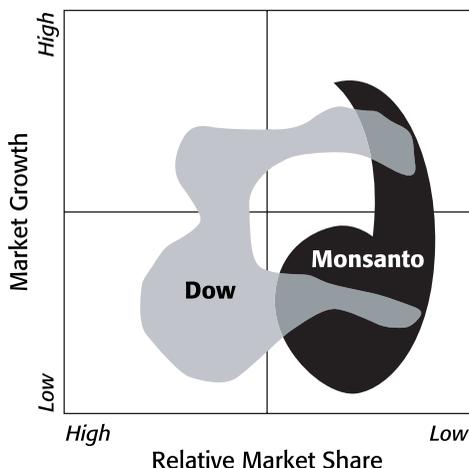


Figure 6.36. Dow versus Monsanto Matrix

an annual rate of 15 percent or greater, it expanded only three of those businesses faster than demand. It lost ground to competitors in eleven of fourteen growing areas. Dow, in contrast, pursued strategic growth in the portfolio-based manner, investing boldly according to plan. Of the twenty-three growing businesses in its portfolio, twenty of them were expanding faster than demand. Confident in its business direction, Dow borrowed to grow, secure in the belief that well-planned debt constituted less risk than underinvestment. Dow's debt-to-equity ratio stood at 1.1:1 as compared with the much smaller 0.46:1 ratio at Monsanto.

Through this period, Dow's business grew steadily, while Monsanto's stagnated. In portfolio management terms, Monsanto overspent on nongrowth businesses and failed to invest in launching a robust set of new Stars for future profitability. It wasn't until 1981 and the efforts of CEO Dick Mahoney that Monsanto tackled its portfolio imbalances, leading the company back to a path of strategic growth and more respectable returns on equity.

Context. The BCG matrix is used for analysis and to support strategic decision making. Because of the need for data-based calculations to map the locations of each business onto the 2 × 2 grid, it is seldom used during workshops for brainstorming new ideas and concepts. This is a persuasive tool that can be used to gain group consensus around the findings of an analysis.

Method. The following steps provide a high-level blueprint for conducting Product-Portfolio analysis:

- Step 1: Set the scope. Determine the unit of analysis by deciding whether business units, subsidiaries, product categories, or products are to be analyzed.
- Step 2: Define the portfolio. Collect the list of businesses held by the company in question for the agreed-upon units of analysis.
- Step 3: Calculate revenues. For each business within the list, gather the following pieces of information:

Sales (revenue) numbers for the current year and for the past several years (two years minimum).

For every competitor being analyzed, calculate sales (revenue) numbers for the current year and for the past several years (two years minimum).

- Step 4: Calculate Market Growth and Relative Market Share. Find or calculate the Market Growth rates for each business being analyzed: This year's industry revenues – Last year's industry revenues/Last year's industry revenues × 100 percent. Calculate the Relative Market Share by dividing the firm's (or business unit's) market share (revenues may be compared) by that of its largest rival.
- Step 5: Complete the grid. Plot each item on the grid based on the calculated values for Market Share and Market Growth, and analyze the results.

References

- Stalk, G. Jr., and Hout, T. M. *Competing Against Time*. New York: Free Press, 1990.
- Stern, C. W., and Stalk, G. Jr. *Perspectives on Strategy*. New York: Wiley, 1998.



Impact-Uncertainty Matrix Adapted by William Ralston

The quest for certainty blocks the search for meaning. Uncertainty is the very condition to impel man to unfold his powers.

—Erich Fromm⁴²

For the past thirty years, the Impact-Uncertainty matrix (Figure 6.37) has been one of SRI Consulting Business Intelligence's (SRIC-BI) most widely used and effective tools for analyzing the external environment. It is applied in scenario planning, strategy management, issues scanning, and technology planning. The tool's key benefit is that it focuses management's attention on the most important external issues that drive future threats and opportunities.

An Impact-Uncertainty exercise begins by focusing on corporate decisions that may be greatly affected by changes in the external environment. These external