



Creating and managing value-driven product portfolios.

Improving product portfolio management to optimize your products, services and projects

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Contents

- 2 Introduction
- 3 Value to the customer
- 3 Value to the business
- 5 Six keys to being value driven
- 14 Objective
- 15 A solution that addresses your portfolio management challenges

Introduction

The product portfolio decisions you make today will determine whether your company is relevant tomorrow. With such a fine line between success and failure, now is the time to make product portfolio decisions based on fact—not guesswork, political agendas, intuition or the opinions of the loudest voice in the room. Successful product portfolios are parked at the intersection of what is valuable to both your customers and your business. Companies with successful product portfolios often utilize a systematic process to effectively guide which projects are selected. After all, every new product initiative is an investment of scarce resources.

Considering its importance, product portfolio management is ironically one of the weakest areas of new product development. Only 21 percent of portfolios contain projects that are of high value to the corporation. Only 25 percent of businesses effectively rank and prioritize their projects. And less than 20 percent of companies have the right balance of projects in their development portfolios. And while 76 percent of businesses have too many projects for the resources available, only 21 percent have a portfolio management system in place to help them select their best projects. ²

To increase the chances of marketing a successful product, organizations must become value driven; that is, they must deliver products and services to the consumers they value the most, and they must provide those deliverables when their consumers want them. Benchmark analysis indicates that companies that are best in class at portfolio management are four times more likely to achieve margin advantages of 75 percent or higher for products on the market for less than two years.³ Becoming value driven requires a continual assessment of how value can be increased through the optimization of the products, services and projects that your organization delivers.

Before we look at how you can become more value driven, let's examine what we mean by *customer value* and *business value*.

Customer value is the customer's judgment of the benefits versus the costs of conducting business with your company.

A portfolio offers value to the business in four areas: value maximization, balance, strategic alignment and an optimal number of projects.

Value to the customer

Customer value is the customer's judgment of the benefits versus the costs of conducting business with your company. Thus, it is important that you increase the value proposition of your products while minimizing transaction costs. Both products and services are key components of the value proposition.

A product is a set of attributes and the benefits that the customer derives from using those attributes. In combination with services and the brand, the set of benefits helps define the total product value for the customer. A slightly different perspective is to view products in terms of the jobs they perform or the services they deliver. Either way, the product is the critical element in delivering your company's value proposition to your customers.

Because consumers are primarily concerned with value, it is important that you understand that value and deliver it. In fact, once product marketers understand the customer value associated with product features—and they have assessed the value to your organization—they can drive product development forward.

Value to the business

Broadly, a portfolio offers value to the business along four dimensions: value maximization, balance, strategic alignment and an optimal number of projects. With *value maximization*, you manage the active projects in your portfolio so as to maximize your portfolio's worth in terms of some business objective. A *balanced* portfolio helps you avoid tipping the scales in the direction of projects that take too long to execute or are too risky to the business. To support *strategic alignment*, your target portfolio should promote a dominant business objective. And you should make sure that you have the *optimal number of resources* to support the projects you have on deck.⁴

Value to the business is commonly measured in terms of marketshare, revenue or profit margin.

It's important to standardize your valuation process to analyze the

value that a potential product offers.

The value a product offers to the business is commonly measured in terms of marketshare, revenue or profit margin. Without a quantifiable value to the business, there is no incentive to develop a product. Value is typically assessed using various factors, including:

- Financial present-value calculations like net-present value of future cash flows.
- Competitive assessments.
- · Marketplace assessments.
- Technical risk.
- · Commercial risk.

To compare the value that a potential product offers, companies must standardize their valuation process. A process that uses quantifiable models of risk and reward allows managers to compare projects to determine the best return to the company. These models also build trust and buy-in among stakeholders.

Most product companies have extensive cost/benefit analysis built into the decision-making and ideation processes for their products; services and IT organizations are less consistent. In many organizations, recent endeavors have focused on governance. Rather than enhancing shareholder value, these efforts can become undirected policing initiatives.

Responding quickly to marketplace changes can yield significant financial rewards.

Assessment gives management the information it needs to make informed decisions about which projects to green-light, postpone or abandon. Product companies, especially those in highly competitive industries like consumer electronics, have learned that responding quickly to marketplace changes can help their products command a premium. This has been referred to as the "sashimi theory," meaning that just as the freshest fish will command the highest price, the first company to the marketplace with a new product will reap the most financial benefit. Agility is essential to such a fast response—in decision making, scoping, development and messaging. And the net effect is that a value-driven approach helps companies respond to their marketplaces by delivering the benefits that their marketplaces most value.

Six keys to being value driven

Using six key constructs, you can focus on delivering value. These concepts are assessment, alignment, achievability, accessibility, agility and accountability. Any one of these core elements can help you increase your focus on value, but taken together, these elements reinforce one another and create a more value-driven organization.

Assessment

Assessment is vital to successful product development. Your company's management team needs information to make informed decisions about which projects to green-light, postpone or abandon. Projects that move directly from idea to development, with little or no assessment, can be disastrous—"runaway projects" with lots of momentum but little merit. With an objective, trusted definition of value, managers can decide which projects are viable and which should be postponed or abandoned. In the best new product processes, management deliberately includes one or two assessment stages, comprising vital must-do actions, before the go-to-development decision point.⁵

To manage a successful portfolio, you need to understand where your current products are in their lifecycle as well as where prospective products might be.

Stakeholders can contribute valuable assessment information to help define the needs of the target marketplace.

Managing a successful portfolio requires an understanding of where your current products are in their lifecycle as well as where prospective products might be. Plotting your products within the market growth/marketshare matrix developed by the Boston Consulting Group (BCG) in the 1970s, for example, can help you picture which of your products are stars in need of continued investment, dogs in need of retirement and cash cows in need of milking. More recent adaptations of this model, including bubble charts that depict the level of resources along risk and reward axes, can also be helpful.⁶

Developing successful products requires that managers understand what customers want. This is typically accomplished by defining and segmenting a marketplace by customer needs. By analyzing the segment through marketplace research, current product analysis, concept test, operational assessment, business and financial analysis, and technical and risk assessment, you can ascertain the value that each places on a product. Stakeholders such as existing customers, prospects, sales managers, product marketers and engineers can contribute valuable assessment information, such as requests for enhancement, defect reports, marketplace analysis, warranty data and call reports, helping to define the needs of the target marketplace. This information should be converted into metrics that will answer questions such as, What type of customer is asking for this particular feature? and How large is this customer segment?

The best-performing businesses are twice as likely as the worst performers to obtain information on marketplace size and potential prior to development.

The best-performing businesses are twice as likely as the worst performers to obtain solid information on marketplace size and marketplace potential prior to development, they are three times as likely to get good price sensitivity information and they are four times more likely to have good insights into customer reaction to the proposed product before development begins.⁷

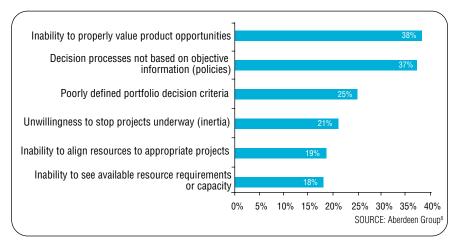


Figure 1: Lack of information for decision making

Prospective products must align with the business strategy because a product portfolio manifests the company's strategy.

Alignment

Your product portfolio represents your company's strategy. Therefore, product portfolio decisions must align with your business strategy and with the needs of your customer segment. The needs of both are often revealed through assessment. While product success certainly depends on delivering customer value, it is also important to consider the costs and benefits of developing a new product.

Page 8

Highlights

When too many projects are executed simultaneously, resources spend more time juggling their workload than completing projects.

Poorly aligned products can put stress on your company in terms of operational resources, positioning, messaging, sales and support. Increasing the product portfolio increases operational complexity. Managers must balance the number of product development projects with the available capacity. When too many projects are executed simultaneously, resources spend more time juggling their workload than completing projects. As a result, projects slow and begin missing targets. Aligning portfolio planning with product development can help improve the throughput of product development projects.

There are two general approaches to aligning product portfolios to strategy: bottom up and top down. Bottom-up approaches include scoring models like the BCG model mentioned before, which can help ensure alignment by maximizing strategic fit. In a top-down approach, senior management categorizes its product portfolio and chooses where the company should focus its resources. Existing products are added to the relevant categories, and then managers decide whether the actual spending for each category is consistent with the planned spending.¹⁰

There are two general approaches to aligning product portfolios to strategy: bottom up and top down.

Rather than innovating, many companies are now merely augmenting existing products. As one analyst recognizes, "Companies undertook almost twice as many 'new-to-world' true innovation products in 1990 as they do today as a percentage of their development portfolios, according to an APQC benchmarking study in 2004." Many product portfolios are unbalanced and do not focus on high-value projects. 12

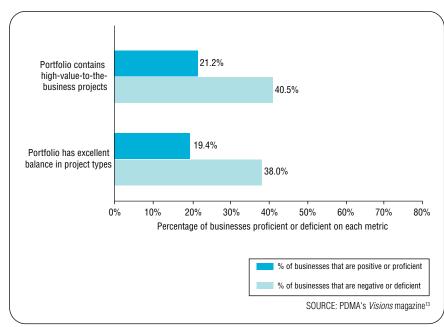


Figure 2: Room for portfolio improvement

Portfolio reviews enable companies to reassess their product investments, eliminate products that offer a lower return and reallocate

resources to more viable projects.

Evaluate projects in terms of resource constraints to avoid pipeline gridlock—too many projects for too few resources.

Achievability

While you may understand the parameters of your product portfolio and the portfolio may be aligned to corporate strategy, it may not be achievable because of resource constraints or operational limitations. It may be easier to say yes to every project, but it is more important to kill or postpone a project that offers a lower return. Through portfolio reviews, an organization can reassess its product investments, eliminate those products that offer a lower return, and reallocate resources to more viable projects.

Projects that are unachievable can be delayed, rather than abandoned, until more information is gathered or resources become available. When considering whether a project is achievable, it is important to evaluate it against other projects in the context of resource constraints. Failing to do so can lead to green-lighting too many projects, which can result in pipeline gridlock—too many projects for too few resources.

Portfolio reviews are typically held quarterly but can be held as often as monthly.

Top-performing companies have a portfolio management system that helps management allocate resources to the right projects. One solution to pipeline gridlock is to use portfolio reviews in conjunction with stage gates. Here the focus of portfolio review is on the entire portfolio of projects—ensuring that your business has the correct set of approved projects, the right mix and balance of those projects, the right prioritization of those projects, and sufficient resources to undertake those projects. Portfolio reviews are typically held quarterly, ¹⁴ but some organizations searching for marketing responsiveness are holding various focused reviews monthly, with large reviews held every four months.

Understanding what is possible—and putting the right resources on the most important projects—is key to success. Top-performing businesses ensure that they have the necessary resources for new product development (NPD) in terms of both funds and people from all functional areas. The astute investment of resources is an important driver of high performance.

Top performers also have a portfolio management system that helps the leadership team allocate resources to the right areas and to the right projects—the right mix and balance of NPD investments, and a strategically aligned portfolio. These companies also maximize the productivity of their research and development (R&D) spending by ensuring that funds and people are focused on high-value projects. Several methods—including scorecards, a productivity index and real options—can help you select and prioritize new product projects. ¹⁵

To properly evaluate a product portfolio, managers need accessible information from across organizational functions, including marketing, operations, finance and support.

To improve access to information and understanding of the marketplace, it's important to consolidate information from all of your company's different groups, including sales, engineering and marketing.

Accessibility

Information accessibility is the fourth key to becoming value driven. It is arguably the most critical of the six core principles. To make informed decisions about a product portfolio, managers need information that helps them understand the value of the product portfolio as well as the value of each product and its requirements. Without this information, lobbying, politics and personal agendas can negatively impact product selection and the success of the portfolio.

Many organizations address this issue by using product teams and committees to communicate product information. Others use information portals that provide realtime visibility into this information. Regardless of the technique used to provide accessibility, it will help your organization embrace a value-driven approach. By increasing the accessibility of information, it is possible to communicate how each product fits in the portfolio and contributes value to the organization. Without it, value can easily be overrun.

Too often, each group involved in the product lifecycle creates its own information repository. Sales teams maintain a customer database to help close deals, support teams track product issues in a bug-tracking system, and engineering departments keep detailed system requirements and project plans in their own solutions. To develop an understanding of what consumers want and where the marketplace is headed, marketing utilizes marketplace research and competitive intelligence. Each system is like the side of a cube, which represents the company's experience of the marketplace. From any single perspective, the cube appears to be a two-dimensional square that offers a limited subset of all the information and knowledge held by the organization. By unifying the different teams and systems, you can improve access to information, and your organization can improve its understanding of the marketplace.

Agility

By improving your knowledge of the marketplace and applying that knowledge to your product portfolio management, you can help your company's managers enhance agility. To enhance responsiveness to the marketplace and leverage the sashimi theory, it's important to:

- Mix short- and long-term projects.
- · Balance cash inflows and outflows.
- Deliver a variety of new products rather than product enhancements and extensions.

Product companies need to understand their marketplace at the early stages of product portfolio management. With this information, managers can verify that their decisions are sound and that the portfolio is balanced. Critical issues like product timing can spell the difference between success and failure.

Agility is the result of being value driven: understanding the market and applying that knowledge to product portfolio management.

Increasing agility is tightly linked with being value driven. These both depend on marketplace intelligence, which involves speaking with customers and prospects, collecting data on how and why a product is winning or losing, and understanding the competition. Without this vital information, agility can be unachievable.

Accountability

Make your portfolio accountable for delivery of results—just like your financial portfolio. The connection is easy to see: "If your NPD portfolio is weak, then your business's new product results are sure to follow. Recognize that every development project is an investment, and just like your stock market portfolio, the mix and balance of these new product project investments must be carefully scrutinized." ¹⁶

Page 13

Highlights

In 48 percent of the worst-performing companies, senior management does not understand the NPD process at all.

A value-driven organization relies on the accountability of managers for the success of the product portfolio. Managers should be incentivized to ensure portfolio success. Value-driven product portfolios can be driven from the top down with executive support. While senior management accountability has the smallest effect overall on performance, 17 it can help increase the profitability that the business unit achieves from new products. This approach relies on management understanding its NPD process as well as its role and responsibility in the process: "This is not always the case (true for only 40.2 percent of businesses), but is clearly a best practice—a major discriminator between best performing businesses and the rest, with 72.4 percent of best performers scoring very high here. Indeed, in 48 percent of worst performers, senior management does not understand the NPD process at all!" 18

Management accountability, which captures the degree to which new product performance is measured, holds senior management accountable for program results. Typical scores are very low on all components of management accountability. Consider each component in greater detail:

- New product performance was a part of senior management's personal performance objectives.
- Senior management's compensation or bonus scheme was tied to the business unit's new product performance. Very few businesses employed this practice.
- The performance results of the new product program were actually measured (e.g., percentage of annual sales generated by new products, or success, fail and kill rates). Surprisingly, this practice was rare—companies simply failed to keep score!

The objective of product portfolio management is to generate value by optimizing the portfolio of products you manage.

The six keys to becoming value driven can help you focus on what is important so your company can maintain the balance it needs.

The evidence suggests that not only is new product performance not a factor in senior management compensation schemes, or even an integral facet of senior management's annual performance objectives, but such new product performance results are likely *not even measured* for a great many organizations.

Objective

The six keys to becoming value driven are at the heart of true portfolio management. The objective of financial portfolio management is to optimize the return on a set of investments. Product portfolio management has the same objective for projects, products and applications: to generate value by optimizing the portfolio of products the company manages.

Too often, organizations undertake product portfolio management without considering the need for assessment, alignment, achievability, accessibility, agility and accountability. With the six steps applied and balanced, portfolio management focuses on increasing value to both the customer and the company by selecting the right set of projects and/or products for development.

Regardless of the products in your portfolio, your goal is to keep your organization focused on delivering value. The six keys to becoming value driven can help you focus on what is important so that your company maintains the balance it needs to win, despite these difficult economic conditions.

Creating and managing valuedriven product portfolios.

Page 15

A solution that addresses your portfolio management challenges

IBM Rational® Focal Point™ software is a leading application for product management and product portfolio management. Designed to target your focus on your customers' needs as you meet your product goals, Rational Focal Point can help you improve product value and increase agility from idea conception all the way through the product lifecycle. Moreover, the software can help you address the six keys to becoming value driven so you can optimize your products, services and projects.

For more information

To learn more about IBM Rational Focal Point software, contact your IBM representative or IBM Business Partner, or visit:

ibm.com/software/rational



Endnotes

- 1, 2, 7, 14 Robert Cooper and Scott Edgett, "Ten Ways to Make Better Portfolio and Project Selection Decisions," PDMA's Visions magazine, June 2006.
 - 3, 8, 9 Jim Brown, "The Product Portfolio Management Benchmark Report: Achieving Maximum Product Value," Aberdeen Group, August 2006.
- 4, 6, 10 Robert Cooper, Scott Edgett and Elko Kleinschmidt, "Portfolio Management: Fundamental for New Product Success," *The PDMA ToolBook for New Product Development*, Wiley & Sons, April 2002.
- 5, 15, 17 Robert Cooper and Scott Edgett, Winning Businesses in Product Development: The Critical Success Factors, May 2007.
- 11, 12, 13, 16 Robert Cooper, "Attention: Results Are Down! Your NPD Portfolio May Be Harmful to Your Business's Health," PDMA's Visions magazine, April 2005.
 - 18 Robert Cooper and Scott Edgett, "Benchmarking Best Practices: Performance Results and the Role of Senior Management," Product Development Institute, May 2003.

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