

UP TO

80%

OF YOUR PRODUCTS ARE LOSING MONEY

WHY YOU SHOULD CARE ABOUT PORTFOLIO COMPLEXITY

BY SCOTT STALLBAUM AND ANDREW LY



Customers expect more products, in more varieties, faster than ever before. As a result, organizations have responded by developing new products and services, entering new geographies and investing in new technologies. The result is often a bloated product portfolio placing increased demands on organizations and processes. These new products, services, geographies and technologies are now stretching the capabilities of most organizations and driving up costs, particularly complexity costs. To compete effectively, organizations must tackle

complexity and its impacts by:

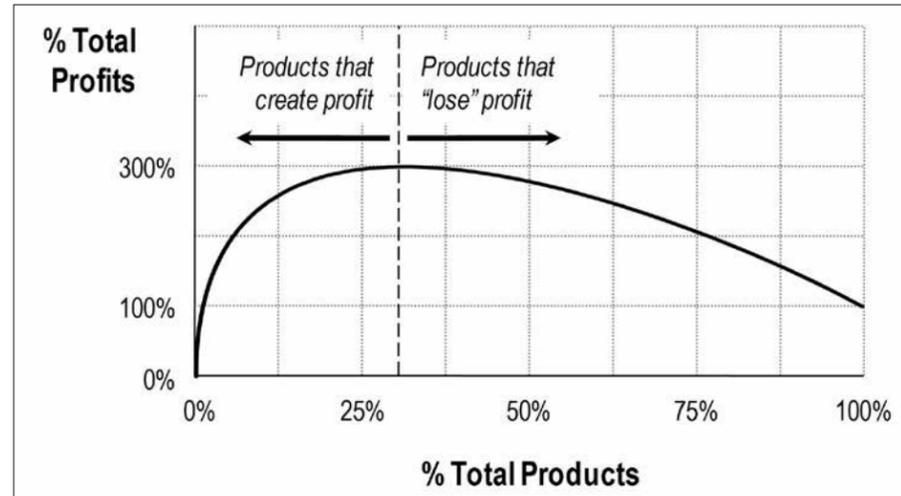
First, eliminating it, and then keeping it from creeping back in.

Because of the added layers of complexity, most organizations now don't know which products make money. In fact, most products today actually lose money!

How is this possible? Consider how profit is usually concentrated within a company. A so-called "Whale Curve" (Figure 1) demonstrates this effect, plotting a company's cumulative profit as a function of products ranked by their profitability.

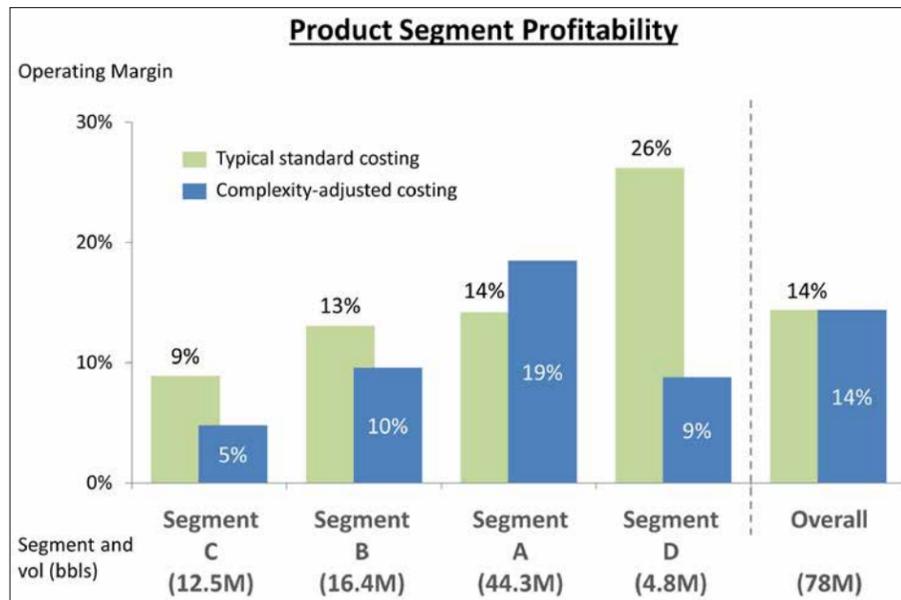
What does the Whale Curve tell us? Often, the most profitable 20 to 30 percent of products generate more than 300 percent of company profits. That means the remaining 70 to 80 percent lose 200 percent of the profits. These products are typically tied to assets, processes, products and customer groups that are disproportionate drivers of complexity. The Whale Curve is a provocative representation of profit concentration, and it provides a tantalizing view of the possibilities. What would your organization look like if you eliminated the 80 percent of products that are destroying profit?

FIGURE 1: THE WHALE CURVE



Properly managing your product portfolio requires a multi-faceted approach to understand the role each product plays in meeting strategic and financial objectives. A first step in understanding your portfolio can be a complexity-adjusted profitability study. To do so, you must look beyond traditional costing methodologies — fixed and variable — and also allocate costs to products based on the complexity they introduce.

FIGURE 2: OPERATING MARGINS USING COMPLEXITY-ADJUSTED COSTING AND TYPICAL STANDARD COSTING FOR A BEVERAGE MANUFACTURER



Mistaking complexity for variable costs makes small volume products and activities seem more profitable than they really are. Conversely, mistaking complexity as fixed costs overestimates leverage potential and could lead to underinvesting in profitable product lines. An accurately adjusted view of costs can dramatically impact the products you decide to add, maintain and remove from your product portfolio.

Imagine how different your company's decisions may be based on those different outputs.

Through extensive theoretical research and empirical practice,

TABLE 1: PER UNIT INVENTORY HOLDING COST USING COMPLEXITY-ADJUSTED COSTING

Product	Unit sales	Volume ratio	Inventory ratio (sq root of volume)	Inventory holding cost	Inventory per unit ratio	Per unit inventory holding cost
Product A	16,000	16x	4x	\$4000	1x	\$0.25
Product B	1,000	1x	1x	\$1000	4x	\$1.00

Wilson Perumal & Company has determined that most complexity-driven costs follow a square root of volume relationship. This relationship paints a significantly more accurate picture of a product's true cost.

As an illustration, take the example below:

- Two products: A and B
- 17,000 total units sold, 1,000 for Product A and 16,000 for Product B
- \$5,000 total inventory holding costs

The typical “peanut butter” allocation would split the \$5,000 evenly across all units sold and allocate holding costs of \$0.29 per unit for both Products A and B (\$5,000/17,000 units). However, in a typical supply chain, lower volume products enjoy fewer inventory turns; hence, each low-volume item spends more time in the warehouse. It follows then to burden lower-volume products with a greater portion of inventory costs per unit, and that is exactly the result of applying the square root costing methodology (see Table 1).

Imagine how different your company's decisions may be based on those different outputs. Indeed, this is what happened to a recent client who manufactures beverages (see Figure 2). Before complexity-adjusted costing, the beverage manufacturer believed Segment D to be their most profitable. But after accounting for complexity, Segment D was nowhere near as profitable as they had thought. By using complexity-adjusted costing, our client was able to make better-informed decisions on pricing, plant loading and product life-cycle management.

This square root costing method is an attractive substitute for Activity Based Costing, which can be accurate, but is incredibly time consuming and static. However, accurate costing is only one step toward optimizing your portfolio — you should not just “cut the tail” and eliminate the unprofitable or low-profit products (see Figure 3).

Some unprofitable products may support the sale of other products, be very important to customers who buy other products, be new and have promising growth trajectories, or any number of other reasons.

And, there may be opportunities to simplify your portfolio by removing profitable products that have direct substitutes elsewhere in the portfolio.

The result of proper portfolio optimization is a much simpler operation with higher profits. But understanding costs alone will not lead to the optimal portfolio, it is simply the first step of a longer journey. To redesign a portfolio, it takes a broad-based understanding of the role each product plays in the context of the company's strategy, the markets it operates in, and the actions of its competitors.

Once an optimal portfolio has been designed, there then must be a concerted effort to implement the offering changes that will lead to that portfolio. Once those changes are made, it is imperative to prevent complexity from creeping in and maintain the lower levels of complexity. ▼



Scott Stallbaum, a manager at Wilson Perumal & Company, is experienced in operations, strategy and product development. Scott has an MBA from the Harvard Business School and Bachelor of Science in Mechanical Engineering from Bucknell University.



Andrew Ly is a consultant at Wilson Perumal & Company focused on operations management, including sales operations, logistics, capacity planning and customer service, including call center operations. Andrew holds an MBA from The University of Chicago, a Master of Education from Boston University and a BS in Business Administration from the University of Oregon.