



CATHEDRAL CONSULTING GROUP, LLC

Product Mix

As we wrap up the first quarter of the new year, it is a good time to reflect on the product mix. Some questions you may want to ask are: What items are currently a part of your product line? Are they individually profitable? How do your products compare to your competitors? Are there new innovations in your product mix that you have yet to implement? Are there customer needs that your product mix does not yet address?

A product is often narrowly defined as the tangible item that a company or organization offers its target segment. However, for purposes of this discussion we will broaden the definition to include services or programs with all tangible and intangible elements.

Width of the Product Mix

Every company faces the difficult choice of how many product lines to offer. The traditional Pareto's Principle, also known as the 80/20 rule, implies that 80 percent of your revenues come from 20 percent of your products. This would cause a shift in focus to the 20 percent of your products that are the most profitable. So the first step in analysis is to determine what the revenue mix is of your products. Specifically, break down last year's revenue by product. Next do this by quarter. The quarter data, including the first quarter of this year, will give a sense of product mix change. If the mix is changing, we now ask why. Again the mission is to know whether you fall within Pareto's rule and whether the mix is changing.

If your focus is on e-commerce then you might want to consider the new Long-Tail theory.¹ This theory utilizes online retail studies to demonstrate that online consumers are just as apt to purchase the other 80 percent of your products—the niche item that comes in a different color or fits a more unusual need. E-commerce has indeed changed the landscape by allowing efficient distribution of niche products. Therefore, before abandoning an underperforming set of products, consider the e-application.

As the product mix widens management needs to be alert to sales analysis which will show not only mix changes, but also which products are not selling. These products need to be evaluated for value and considered for elimination from the mix. If regular analysis does not occur it can result in cash flow being tied up in inventory. Boston Consulting Group portfolio analysis examines the market growth rate and the product's relative market share to determine the profitability of each product.² Each product is viewed as a producer or user of cash. If a company wishes to finance future product development through internal cash flow, having a high number of cash producing products is vital.

¹ "A World Without Bestsellers." <http://www.inc.com/magazine/20070901/a-world-without-bestsellers.html>

² "Product Mix Management and Responsibility." <http://www.enotes.com/business-finance-encyclopedia/product-mix>

The time span of a product's existence is known as the Product Life Cycle. It typically evolves in four stages: introduction, growth, maturity, and decline. In industries such as retail or manufacturing it is critical that merchandise is marked-down as it ages to avoid the risk of getting stuck with dead inventory.

As a manager evaluates the company's current product mix, it is good to consider the current state of the industry. Review if there are opportunities for expansion and growth or if the industry is contracting. If sufficient growth is occurring, evaluate if your company has the necessary capacity and resources to expand.

Gross Margin Analysis

Once the product mix is developed, the next step is to review the gross profit margins for each. Gross profit is the actual sales price less the cost of the product. The actual sales price is the price less discounts. The cost of the product is the cost paid plus related costs such as shipping. With today's cost changes the gross profit margins on differing products will move during the year. Review gross profit margins to be sure that each product is producing a gross profit.

Many of our clients ask, "How much gross profit should be expected?" As usual it is not possible to give a specific answer. However, a couple of factors are:

1. What is the competition pricing? Clearly, one cannot price above market. Competitor's prices are an indicator of the market.
2. What is the expected volume and the overhead costs? In this approach we look at the total expected volume of products to be sold, then add the costs of those products to the operating costs for the business. This is the total needed revenue to run the business. It is appropriate to add some profit as well. From this total target revenue is subtracted the product costs to arrive at the target gross margin. The target gross margin as a percentage of targeted revenue is the target gross margin percentage. If you do budgets, this would be a normal part of the November budget process.
3. Gut instinct works pretty well for many people, but the problem today with gut instinct is that costs are rapidly changing. Therefore, the gut becomes out-of-tune with where the market is relative to market pricing. You cannot sell at a higher price than the market will bear. At the same time, we have seen a number of clients where the costs went up faster than their prices, even though the market would bear the higher pricing.

Now that the gross margin for the product mix is computed, we need to consider shifting the mix. Here we run into the profit/volume analysis. The profit/volume analysis shows how to maximize the organization's profits by a mix that maximizes the profits given the potential volumes. Every business is different. But this analysis will dramatically help in focusing on what the customers need against what they are willing to pay for.

The final step is to consider the minimizing the costs of the products. We find that most clients are excellent at this. Buying smart is an essential part of all businesses, especially the smaller private company. By using the above analysis tools, the additional benefit will be better inventory management. Keeping the mix that the customers want on hand without excess dramatically reduces inventory carrying costs.

Product Mix Model

A successful product mix should do the following:

- Maximize profit in the short and long term
- Utilize resources most efficiently
- Satisfy buyers constraints
- Satisfy current demand trends

In order to determine if your current product mix meets these criteria, further information should be obtained. Analyze current market trends through external sources such as industry-trade journals, attendance at trade shows or seminars, memberships in trade associations as well as through internal sources including customer and sales analysis. A cost analysis of products will also be useful in determining where to best allocate resources.

Steps in Managements' Evaluation of the current Product Mix:³

1. Review your current product line offerings
2. Determine how much emphasis each product line receives
3. Determine which product lines to remove
4. Decide which and how many product lines to add
5. Determine which product lines will be developed and which will be acquired
6. Review effects of added or deleted product lines on existing product mix
7. Consider external factors which will influence the effectiveness of your product mix

You might have the best product mix in the world, but does it match your distribution strategy? Who is really selling your product? If you are selling direct to the consumer, then the success of your product mix will be immediately evident. However, if you sell to wholesalers or through other distributors there may be an educational process that needs to take place. If your product mix is to be a success, distributors have to also believe in your products and push them through their channels.

Articles for Further Reading

- "Product: A Part of the Marketing Mix."
https://people.creighton.edu/~shu02225/nps_c_05.html
- "Product Mix." <http://www.enotes.com/business-finance-encyclopedia/product-mix>
- Hall, Dr. Charles. "Product Mix: Determining my Winners and Losers."
<http://aggie-horticulture.tamu.edu/GREENHOUSE/NURSERY/GUIDES/econ/chopt.html>

Phil Clements is CEO of Cathedral Consulting Group, LLC and a Managing Director in the New York Office. Sharon Nolt is a Senior Associate in the New York Office. This article was written for our Topic of the Month for March 2008 as part of our Board Services program.

For more information, please visit Cathedral Consulting Group LLC online at www.cathedralconsulting.com or contact us at info@cathedralconsulting.com.

³ "Product Mix Management and Responsibility." <http://www.enotes.com/business-finance-encyclopedia/product-mix>