

# The Business Case for Product Rationalization

**An executive summary on the benefits,  
trends & technologies**

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## 1 Using GMROI to Improve Product Velocity & Profitability

In the past decade, products and brands have proliferated inexorably. Today, not only do we have the core product itself, but also multiple variants of the product, in different packaging, placed in different channels to satisfy particular consumer niches. To achieve this, product companies increasingly pour funds into new product R&D and efficient processes, segmenting consumer markets to find those niches where profitability lurks. In many cases product proliferation works and adds to revenue, profits, consumer satisfaction, increases brand strength, and other critical variables.

However, with the vastly increasing number of products and brands in the marketplace, the management of those products comes increasingly into the spotlight. With a broad selection of products, how can product companies, wholesalers, distributors and retailers ensure that product turns as efficiently as in the past? How can these players become more responsive to the marketplace? After all, managing the inventory of an increasingly diverse product base is more difficult than managing a single product. Product organizations of all types constantly struggle with this dilemma and the importance of managing this diverse product base efficiently is only becoming more paramount.

To manage product proliferation, companies throughout the supply chain employ varying tactics. Tactics differ between the types of industry players, but at least one tactic remains constant—the measurement of product effectiveness on the bottom line results of the company. Retailers have long known about measuring product categories, and even individual products down to the stock-keeping unit (SKU) level based on the Gross Margin Return on Investment (GMROI). Product manufacturers, wholesalers and distributors typically track product velocity in terms of raw turns and monitor other financial and balanced scorecard measures. What is recognized to a lesser extent, regardless of the industry player, is monitoring and managing product profitability on an ongoing and consistent basis.

How would a retailer know when profitability from the merchandise mix is maximized? How is this product profitability managed on an ongoing basis? What products from their entire portfolio should wholesalers and distributors emphasize to increase sales and profits? Which products should manufacturers choose to promote? The answer to these and other

questions lies in more effective measurement and management based on those measures. Identifying the product or SKU-level GMROI is an area of performance measurement that is rapidly gaining in both relevance and popularity as an effective planning tool.

GMROI recognizes the limitations of looking at sales, profit margins, and inventory turns individually and captures them in one inclusive measurement. Using GMROI effectively allows industry players to compare relative returns across categories and aids in optimizing the overall product mix for increased profitability. GMROI can be applied at macro or micro levels in any size organization. Minor changes to the merchandising mix can often have a dramatic impact on overall profitability while providing the critical marketing information needed to improve positioning for growth. Analysis based on GMROI can lead to sales increases through product rationalization or opportunities for cost reductions throughout the supply chain.

## 2 GMROI Calculation

The base GMROI calculation is relatively straightforward (exhibit 1). The essence of the calculation is how profitable a given product or category is, multiplied by how quickly the units are sold—the inventory turnover or sales-to-stock ratio for retailers. Net sales from gross margin and the sales-to-stock ratio cancel each other out to produce GMROI. The GMROI calculation can function on multiple levels depending on the needs of the particular business.

Simpler calculations are typically easier to implement but sacrifice the accuracy of the more detailed adjustments that may be made to the calculation. While value-creating decisions may be made upon the simpler calculation, the calculation is not quite as accurate as one adjusted for other critical components of the business. For example, does a retailer include inbound freight in the gross margin calculation? The organization's goals and objectives for the GMROI initiative will drive decisions made about how GMROI is calculated. In the final analysis, what is most important is not necessarily the calculation, but the consistent application of the measure throughout the company.

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### Exhibit 1: Gross Margin Return on Investment Calculation



The GMROI calculation makes intuitive sense, hence its strong appeal. The aggregate gross margin for a particular inventory category multiplied by the inventory turnover for that category yields a percentage that represents the gross margin return for every dollar invested in inventory. That is, for every dollar invested in inventory the amount of contribution made to overall profitability. Too often the gross margin and inventory turnover are looked at in isolation.

For example, say a clothing retailer is analyzing men's shirt sales:

- **Gross Margin:** The gross profit is defined as net sales less the cost of goods sold (COGS). Net sales equals gross sales adjusted for mark-ups, markdowns and other adjustments. In this example, net sales for the

subject for the year were \$500,000 and COGS was \$450,000. The gross margin percentage is derived by dividing gross profit by net sales:  $\$50,000/\$500,000 = 10\%$ . This 10% represents the margin made on every \$1 of net sales, before selling, general and administrative costs, depreciation, and other expenses on the income statement below the gross profit line.

- **Sales-to-Stock Ratio:** In this calculation, the merchandise turnover is measured by the Sales-to- Stock ratio, or inventory turns at retail prices. Calculate the cost of average inventory by adding beginning to ending inventory at retail and dividing by two. In this example, the total retail value of beginning inventory was \$50,000 and the ending inventory was \$150,000, for an average of \$100,000 on hand throughout the year. Therefore, the sales-to-stock ratio on \$500,000 in sales is  $\$500,000/\$100,000 = 5$ . This means that merchandise inventory is turning five times per year at retail prices.
- **GMROI:** GMROI is simply determined by multiplying the gross margin percentage by the Sales-to-Stock ratio. In this example, GMROI for men's shirts is  $10\% \times 5$  or 50%. So, for every dollar invested in men's shirts the retailer earns \$0.50. For this clothing retailer, this GMROI can also be used to compare across other categories such as women's blouses and blue jeans to see which subjects are contributing the most to overall company profitability.

Men's shirts appear to be a great business returning \$0.50 in contribution for every \$1.00 investment in inventory. The GMROI assessment is directly correlated to overall earnings: a high GMROI means high gross profitability and a low GMROI translates directly to low gross profitability. Therefore, merchandisers should take heed. Increasing GMROI will increase firm profitability; and for high volume businesses, small positive changes in GMROI can mean extraordinary improvement in overall profitability.

The GMROI calculation may be complicated by a number of adjustments. The adjustments that are made depend on the type of business. Net sales, for example, is fairly straightforward and usually well defined. For retailers, net sales typically take into consideration markdowns, mark-ups, returns and other adjustments. The point is to arrive at the average price at which goods are sold to customers—that is, the cash yielded by the merchandiser's net units sold.

So, a senior citizen's discount for example reduces the average gross margin and affects the GMROI calculation. Moreover, COGS may include simply the purchase cost of goods sold or be extended to include the total

costs of the supply chain—that is, total costs to bring a particular good to the point of sale. When determining what adjustments to include, the organization must consider the unique needs of the business. However, to reiterate, what is most important is consistent application of the calculation that the merchandising organization creates in the first place.

- Now that the GMROI calculation is defined, the following questions quickly become:
- What strategies can be employed to improve GMROI performance?
- If GMROI improves, how does this affect my overall bottom-line and by how much?
- What derivative measures should retailers evaluate?
- How can we track GMROI on an ongoing basis?

### 3 Strategies based on GMROI

The endgame for any strategy based on GMROI is the same. In an ideal world, managers want to grow the volume of high margin products; that is, high GMROI products. In reality, however, managers must deal with a portfolio of products that span the spectrum of profitability and volume. In the example above, men’s shirts appear to be a solid cash generator. Retailers though carry a broad range of products and categories—some that are much lower margin, some high margin, some higher turn, some lower turn.

Strategy based on GMROI must be placed in context with the organization’s business objectives, goals and model. For example, capacity, resources, and other capabilities shape the approach a particular company may decide to take. A high fixed cost business in a price sensitive market may decide to sacrifice margin to gain in volume, overcoming the overhead burden. Successful strategies differ tremendously in approach. Wal-Mart is notorious for everyday low prices and value; Cartier is notable for higher priced products that turn much more slowly. Regardless of approach, relative strategies may be very similar. A simple two by two framework integrates the fundamental tenants of GMROI analysis.

**Exhibit 2: GMROI Analysis Framework**

|                    |      |  |  |
|--------------------|------|--|--|
| Inventory Turnover | High | <p><b>Consumer Staples</b></p> <p>Acceptable GMROI</p> <p>How can margins be increased?</p>                      | <p><b>Family Jewels</b></p> <p>Highest GMROI</p> <p>How can Treasures be protected?</p>    |
|                    | Low  | <p><b>Rationalization Opportunity</b></p> <p>Lowest GMROI</p> <p>On what basis are product/groups evaluated?</p> | <p><b>Niche Performers</b></p> <p>Acceptable GMROI</p> <p>How can volume be increased?</p> |
|                    |      | Low  | High   |
|                    |      | <b>Profit Margin</b>   |  |

The framework yields four distinct categories that will be present in every business, relative to its approach to the market. Like Wal-Mart, Cartier will have relatively lower priced goods with higher turns and higher margin merchandise with lower turns. What's relevant is, within each company, the comparison between product categories and SKUs and externally to companies of similar market approaches (e.g., Tiffany for Cartier). The same is true for product manufacturers, wholesalers and distributors. Each of the quadrants is discussed in turn.

### 3.1 Family Jewels

Every company's dream: goods selling at high margins that are turning at high rates. Clearly, these will be the most profitable goods in the product mix. If the company's goal is to elevate the entire merchandise portfolio to a much higher level of profitability, then this is the route the categories or products will take. We all love the Family Jewels. The merchandiser's goals are not only to elevate the categories or products to this level (and ultimately above), but also to protect the margins and turnover of these outstanding performers. Customer demand needs to be studied in detail and systematized to carefully plan the inventory of the category.

The greatest risk in this quadrant is stock-outs—not having the product depth on hand to meet demand. To minimize stock-outs a study of the category's component SKUs would reveal the fastest sellers. The product company needs to keep these high volume and high turning SKUs in stock or on the shelves. That means carefully predicting demand, working with the supplier(s) to ensure a steady stream of product and maximizing the efficiency of the supply chain to get the goods to the stores quickly. GMROI analysis, supplemented by SKU level research to identify patterns and trends in the quadrant, enables the insight necessary to help protect these star categories and SKUs. More importantly, GMROI kicks off an analytical process that potentially adds value in other areas of the business.

### 3.2 Niche Performers

This category provides strong margins for the retailer, but relatively much lower volume. This category is, as an extreme example, the 10-carat diamond sitting on the shelf for years waiting for someone to buy it. Even so, since the margins are so high GMROI may be as good or better than the high volume Consumer Staples. If we could think of ways to sell those 10-carat diamonds every day, surely we would!

Niche performers fulfill a couple of different objectives in the product mix. These products could represent the window-dressing that fills the shelves for the retailer, the “panache” that adds to the overall customer experience within the store environment or the goods for salespersons to trade customers up to. Regardless, we’re looking at this from a GMROI perspective and that simply means we like to sell more of these.

Once again, we turn to SKU level analysis. Within this product category, there will be some relatively stronger and weaker performers. The merchandiser needs to assess the category at the SKU level to determine the appropriate means to elevate the aggregate quadrant “portfolio”. Decreasing the costs to get these products to the stores are, relatively speaking, not the primary focus of this category. Rather, means need to be identified to increase volume that may entail improving merchandising assortments and displays or making tactical adjustments to markdowns. Whatever route the merchandiser takes, focus should be maintained on the GMROI components to improve overall company profitability.

### 3.3 Consumer Staples

This category provides the retailer its “meat and potatoes” in terms of daily revenue. For a supermarket, this is the milk and the bread—the staples that bring the customer in the door. Typically, Consumer Staples are low margin, but very high volume goods so the GMROI could be on a par with Niche Performers.

To improve GMROI and returns for this category, small improvements to gross margin yields high impact to the bottom line due to the volume sold. A SKU level analysis will reveal the individual products that have potential for margin improvement. Once individual products are identified, managers can look to the supply chain for opportunities to improve margins. Grouping these SKUs by vendor, for instance, may set off further investigation into possibilities for improving the costs of the goods purchased.

### 3.4 Opportunity Area

This is the quadrant where the tough decisions need to be made between merchandise that is on-hand for appearance’s sake versus the products that should be eliminated or reduced in order to improve GMROI. These are the categories or products that are “fillers” to take up space in a store, provide the breadth and depth of product mix or otherwise contribute to store “feel” somehow making the shopping experience a positive one for the customer.

These are all very legitimate concerns. However, what the GMROI assessment at the category level can provide insight into is the allocation of a given category to the overall store.

For example, what percent of store sales does men's shirts contribute to? 1%? 50%? What percent should men's shirts contribute to maximize overall profitability in the context of the business' overall strategy? Let's continue our men's shirt illustration to demonstrate how GMROI helps to optimize profitability. At a category level, let's assume that men's shirts represents 5% of total store sales (remember the 50% GMROI), the overall store GMROI was 40% and that women's blouses represents 10% of store sales at a 10% GMROI. If the allocations to these sections were switched—that is, men's shirts consist of 10% and women's blouses 5%, overall store profitability increases.

The GMROI results suggest that men's shirts are a cash generator with high turns and high margins. It seems in this particular store that patrons buy lots of Romance Novels and that the storeowner is overjoyed with the high margins. If this is the case, the manager should deepen the inventory and selection of men's shirt merchandise and counter the risk of stock outs.

Conversely, why carry so much inventory and SKUs in women's blouses? It is clear that women's blouses is a target—not necessarily for elimination from the product mix—but for reduction or re-allocation. To maintain the breadth of the store product mix and other reasons, this merchandiser will always want to carry some women's blouse product. Therefore, the category may never be eliminated entirely.

The next step is a closer examination of the SKU level detail. Which Biographies have the lowest GMROI—the lowest margin and the lowest turning? These are targets for elimination from the product mix. Of the reduced space for Biographies, the relatively higher GMROI Biographies remain. This retailer should consider increasing the count of these higher turning SKUs or further increase the inventory of other selections. Upon completing a “rationalization” of women's blouses, the next step is to determine the shelf space that is available. Some of this space will go to increasing the inventory of the higher GMROI men's shirts. However, there may be space left over. This is where we look across the store for other high GMROI categories or SKUs. The merchandiser then determines what additional SKUs from the higher GMROI subject will take the space of the “rationalized” women's blouse section.

## 4 GMROI for Consumer Products Companies & Distributors

This paper has provided illustrations of GMROI application largely to retailers. However, GMROI concepts may be applied to other product companies throughout the supply chain. In this sense, these companies seek to optimize the profitability of the product mix or product “portfolio”.

The discovery process begins by understanding the calculation of GMROI that is appropriate for that particular business, identifying the aggregate portfolio GMROI, segmenting the portfolio and then performing a product grouping and SKU level analysis to develop alternative optimization strategies or scenarios. Eliminating certain under performing SKUs from the product mix and replacing that capacity with higher volume, higher margin products to improve revenues is clear. A more difficult issue for these companies is identifying individual product margin and driving supply and distribution efficiencies. Such methods as activity-based costing and process value analyses would effectively enable companies to identify product margins down to the SKU level. With this insight these companies are in a much better position to realize cost reductions and improve product margins.

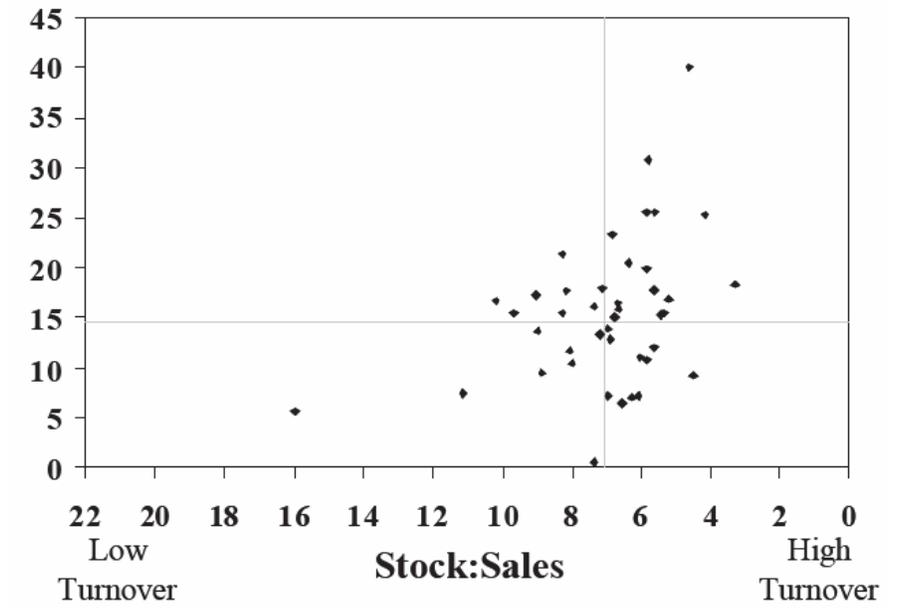


By calculating GMROILS by category and down to the SKU level, retailers will understand how effective their space is, and more importantly, how to improve their profitability on space. Exhibit 4 below displays an example of SKU level GMROILS research. The horizontal and vertical lines are averages to force the SKUs into the four quadrants. The process of SKU level analysis follows as described above. In the Opportunity Area, for example, SKU A is a clear target for elimination or reallocation of space to another SKU such as B. By embedding a process such as this, store and organizational profitability can be maximized on an ongoing basis.

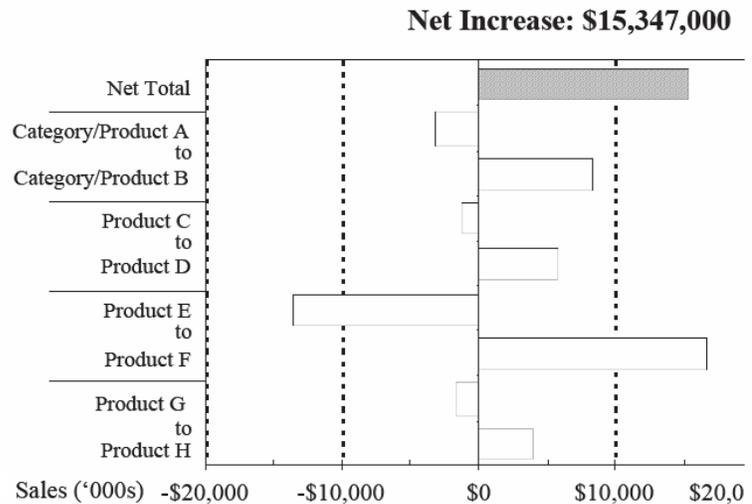
## 6 SKU Rationalization Impact

GMROI and its variants have potential to generate the insight necessary to drive new value. This is true for all product industry participants from retailers to manufacturers. Reallocating inventories to higher turning and more profitable product types drives this impact. Such reallocations have impact on both revenues and costs. Revenue gains are in terms of increased sales from higher turning products as well as higher margins. Cost reductions come from SKU or product type rationalization and the benefits of higher throughput, increased facility utilization, and potentially consolidated purchasing.

**Exhibit 4: SKU-level GMROILS research**



How are increased sales and margins achieved? The answer lies in SKU level analysis of the Niche Performers, the Consumer Staples and a thorough evaluation of the Opportunity Area. For the Niche and Staples groups, the SKU level analysis focuses on identifying higher potential products based on historical trends, market and consumer analysis, and floor placement for retailers. These facts synthesize to a conclusion to place heavier emphasis on certain products within the group as opposed to others that will grow volume or margin.

**Exhibit 5: Net increase in sales**

The opportunity Area is the group where the most impact can be made. These products by definition have low margins and are not selling. Not a good combination. SKU level analysis similar to the Niche and Staples groups would be performed. However, rather than shifting emphasis to certain products, instead SKUs may be “rationalized”.

Before targeting particular SKUs for rationalization, the individual products should be prioritized based on criteria that are developed for the particular business. For example, new products may be found in the Opportunity Area that has high future potential. The business needs to separate these high potential products from the low potential ones.

Once low potential products are identified rationalization may begin. The total cost of owning these products is assessed in detail. Total costs include the costs to procure, logistics, inventory and distribute. These costs may vary significantly depending on the nature of the product. From the cost analysis, a business case is developed to rationalize the category or SKU and reallocate capacity to other higher performing products. Exhibit 5 shows the net increase in sales expected from an optimization/reallocation of inventory between multiple products.

For example, the space dedicated to inventory category or product A is being reallocated to category or product B. Due to differences in the sales to stock ratio of the two products, sales increase on a net basis. Similar analyses may be performed based on inventory category or product profitability and models may be run that are designed to optimize based on sales or profitability across products.

Furthermore, these analyses may be run across stores for a large national retailer to identify and optimize considering local differences. What's the overall potential impact to the company's bottom-line of conducting a GMROI review of merchandise categories? For high volume businesses, the potential impact of small changes in the product mix is enormous. For smaller business, understanding the velocity and profitability of products can mean survival.

## 7 Tracking & Monitoring GMROI

Product category and SKU optimization efforts based on GMROI can have a very strong profitability impact on any product organization. The process of investigating and dissecting product profitability is one that can achieve enormous insight for companies seeking to improve their ability to manage diverse product lines. Improved systems and reporting capabilities enables organizations to monitor category, product, and SKU level GMROI on an ongoing basis.

There are a number of business intelligence tools to accomplish this goal. These tools facilitate data collection activities, calculate the GMROI, GMROILS and variants, provide reporting capabilities and integrate with an organizations performance management systems. With such real time reporting capabilities, decisions on product or merchandising mix can be made more quickly to drive bottom line results.

Further, business intelligence systems can integrate with an organization's business partners (e.g., suppliers, customers, distributors) to measure and manage performance not just within the company itself, but also across the supply chain. Such supply chain intelligence can enable organizations to very quickly identify opportunities to drive operational efficiencies that ultimately have product margin and velocity impact. For manufacturers, wholesalers and distributors, having intelligence and insight on product movement throughout the supply chain on a regular basis can drive significant impact to the bottom line.



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