# BUSINESS MANAGEMENT TOOLS FOR OPTOMETRIC PRACTICES

*Management & Business Academy*
*Sponsored by Essilor*

## FRAMES A-B-C ANALYSIS

**MBA Business Management Tools** are analytical tools to assess practice performance, identify improvement opportunities and develop business plans. Each technique has been proven to be useful in other business settings.

Management & Business ACADEMY
For Eye Care Professionals
Sponsored by
essilor

## Background

In every retail or manufacturing business, a limited number of "best sellers" account for a disproportionate share of sales and have higher inventory turnover ratios. It's useful to know precisely the inventory turnover of each item a business stocks. This information can guide decisions on which items to retain or cull, which items to devote prime display space, which items to promote and how frequently to replenish inventory to avoid out-of-stocks.

It's a common analytical process among production and inventory managers to categorize each of the items they handle (or stock keeping units -- SKUs) into three groups (A, B and C), based on turnover, and to apply different operational guidelines to control inventories of the different groups.

Across industries, "A" items typically include the 10-20 percent of fastest selling SKUs, which often account for 60-70 percent of total unit movement. "B" items include those with average turnover ratios, typically accounting for 20-30 percent of SKUs and 20-30 percent of unit movement. "C" items include the large number of slow-movers that usually account for over half of items stocked, but less than 15 percent of units sold.

### A, B and C Stock-Keeping Units (SKUs)

| | % of stock keeping units | % of unit sales |
|---|---|---|
| A items | 10-20% | 60-70% |
| B items | 20-30% | 20-30% |
| B items | 50-70% | 5-20% |

Note: These proportions of SKUs and unit sales by category apply across diverse industries, but may not accurately depict the distribution in every business.

MBA data shows that the quantity of frames in inventory among independent OD practices is correlated with practice size, but does not grow in a linear fashion as overall revenue increases. Large practices enjoy higher frame turnover. They can present an adequate selection to patients and sell ten times more units with inventories just twice as large as small practices.

### Frames Inventory by Practice Size
**(median within practice size group)**

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| 600 | 650 | 750 | 750 | 852 | 915 | 905 | 1,025 | 1,125 | 1,250 |
| $356 | $580 | $698 | $825 | $947 | $1,106 | $1,300 | $1,532 | $1,852 | $2,950 |

ANNUAL GROSS REVENUE ($000)

Source: Management & Business Academy

An A-B-C analysis is useful in managing frames inventory. It will result in a more refined understanding of patient demand and lead to better decisions about how many items to stock, both in total and within frame lines. It will reveal if excess inventory exists and which specific items can be eliminated without impacting the eyewear capture rate.

## Frames A-B-C Analysis Example

The example below analyses the frame inventory of an actual midwestern practice, the performance metrics for which are typical of independent optometric offices in the upper middle range of practice size.. There is a total of 780 frames in inventory, including a single pair of each SKU stocked. The practice sells 1,556 frames annually, achieving an annual turnover of 2.0. It has 26 weeks supply of frames on hand (total inventory divided by average week frame unit sales).

### Frames A-B-C Analysis Example Practice

| | |
|---|---|
| **Annual frames unit sales** | **1,556** |
| **Annual frames retail sales** | **$304,353** |
| **Retail sales per unit** | **$196** |
| | |
| **Inventory units** | **780** |
| **Annual frames turnover** | **2.0** |
| **Weeks supply on hand** | **26** |

The A-B-C analysis of this practice's inventory revealed:

- "A" items (selling three or more units annually) account for 13.5 percent inventory units and 29.5 percent of frames unit sales. Annual turnover for "A" items is 4.4, more than twice that of the total inventory average. An average of 12 weeks supply of "A" items are in inventory.

- "B" items (selling two units annually) account for 16.7 percent of inventory units and 18.7 percent of unit sales Annual turnover is 2.2, slightly higher than the overall average. Weeks supply in inventory is 23 weeks.

- "C" items (selling one or less units annually) account for 69.9 percent of frames inventory units and just 51.8 percent of unit sales. Annual turnover is just 1.5. Some 35 weeks supply are on hand of the average "C" item.

### A, B and C Stock-Keeping Units (SKUs)

| | SKUs | % of of SKUs | Unit Sales | % of Unit Sales | Annual Turnover | Weeks Supply |
|---|---|---|---|---|---|---|
| **A** (3+ units per year) | 105 | 13.5% | 459 | 29.5% | 4.4 | 12 |
| **B** (2 units per year) | 130 | 16.7% | 291 | 18.7% | 2.2 | 23 |
| **C** (0-1 units per year) | 545 | 69.9% | 806 | 51.8% | 1.5* | 35 |
| | | | | | | |
| **Total** | 780 | 100.0% | 1,556 | 100.0% | 2.0 | 26 |

*The actual annual turnover of "C" items is much lower than shown in this analysis, because the current number of "C" SKUs in stock masks the fact that there is considerable churn in the composition of "C" item inventory over the course of a year. Slow-moving "C" items are more likely to be returned to frame vendors and new items added. If all of the individual "C" items stocked at any time during a year were counted in this example, it would likely total 900-1,000 SKUs, producing a turnover per item of 0.8 to 0.9.

Note: The classification of items selling three units annually as "A' items is arbitrary. If these items were classified as "B" SKUs, then "A" items would account for 7.2 percent of SKUs, 18.9 pecent of unit sales, with an annual turnover of 5.3.

The example reveals a low concentration of unit sales in best-selling frames items, quite unlike the much heavier concentration usually observed in other retail categories. There is extreme proliferation of frames colors and styles, which causes the low concentration of sales in “A” items. It’s likely that most practices with comparable sized inventories have a similar low concentration of sales in “A” items.

The best-selling single frame SKU in this practice had sales of just nine pairs in the previous 12 months, accounting for less than one percent of total frame sales. This location sells 30 pairs of frames per week, so the odds of an order for its best selling frame during any week is about one-in-five. That means it makes sense for an office of this size (or smaller) to keep only a single unit of any frame SKU in stock, because the probability of selling two units in a single week, and experiencing an out-of-stock, is low.

In this example, by far the largest number of frames SKUs had sales of one or zero units during the previous 12 months. This office requires that frames sales representatives weed out slow movers during quarterly visits. At any point in time, it’s likely that there would be many as 150-200 “C” items in this practice’s inventory which would sell no units in twelve months, if slow-movers were not regularly culled by the sales reps.

It makes no sense for any practice to stock the same “C” frames, year after year, that do not turn at least one unit a year. Eliminating them would have little impact on sales. Offering a broad selection of frames communicates a strong visual message to patients that they are likely to find a frame that best suits their needs at the practice. But it makes no sense to carry a lot of items that no patient ever buys.

This office deals with 17 frames vendors – probably too many. The effect is to raise inventory levels somewhat above what is necessary to provide adequate selection, because there is duplication of styles. The number of “C” items stocked in this example (and in most offices) is likely excessive and could be reduced without significant business loss. Eliminating 10-20 percent of the slowest moving “C” items would be a prudent action based from this analysis.

In this practice, an analysis was also conducted of frames inventory and sales by vendor. The top three vendors accounted for 53 percent of inventory and 67 percent of unit sales, achieving an average annual turnover of 2.5. Beyond the top three vendors, the annual turnover of the remaining vendors is just 1.4. It’s likely that secondary vendors occupy too many inventory slots and that the range of colors and styles from these companies could be reduced and some vendors could be eliminated.

## Frame SKUs and Unit Sales by Vendor

| | SKUs | % of of SKUs | Unit Sales | % of Unit Sales | Annual Turnover | Weeks Supply |
|---|---|---|---|---|---|---|
| Value vendor | 153 | 19.6% | 453 | 29.1% | 3.0 | $146 |
| Core vendor 1 | 173 | 22.2% | 365 | 23.5% | 2.1 | $213 |
| Core vendor 2 | 88 | 11.3% | 218 | 14.0% | 2.5 | $215 |
| Other vendors (14) | 366 | 46.9% | 520 | 33.4% | 1.4 | $219 |
| Total | 780 | 100.0% | 1,556 | 100.0% | 2.0 | $196 |

## Conducting an A-B-C analysis

1. Create a report, using the practice software system, showing a list of all frames in inventory, ranked from highest to lowest in unit sales for the previous 12 months. For the report, define an item as a SKU if it has a distinct manufacturer order number. Each color or size of a frames style should be considered a separate SKU. An example report format appears below. If frames inventory has not been entered into the software system or is not kept current, it will be necessary to manually count inventory and enter the data on the report

### A-B-C Analysis

| Frame item description | 12 month unit sales | % of unit sales | Cumulative % of sales | Current inventory quantity | Annual turnover | Weeks supply |
|---|---|---|---|---|---|---|

Note: Annual turnover equals 12 month unit sales divided by inventory quantity
Weeks supply equals inventory quantity divided by (12 month unit sales divided by 52)

2. Within the report calculate a sub-total for the best-selling "A" items that account for 5-15 percent of SKUs with turnover more than two times higher than overall inventory turnover. Create additional sub-totals for "B" items accounting for 10-20 percent of SKUs with turnover similar to the overall average, and for "C" items – all remaining items with below average turnover.

It's likely that the report or inventory count will reveal many frames in inventory with no unit sales during the past 12 months. These are likely the prime candidates for elimination.

3. It can also be useful to aggregate sales and inventory by frames style within vendor (suppressing data on sales of different colors or sizes) and by vendor totals. This will reveal the styles and vendors with sub-par annual turnover ratios, which would be the prime candidates for reduction in inventory slots or elimination.

4. Allocate inventory slots based on the A-B-C analysis.

With a target inventory quantity determined and with the A-B-C analysis in hand, the available inventory slots should be allocated among the vendors and styles. The allocation should take into account the variability in turnover of different styles and brands – higher turnover brands/ styles should be allocated more slots. Here is a hypothetical example of an allocation of 700 inventory slots. Each practice must determine its own allocation based on the demographics of the patient base. The allocation should be reviewed and updated annually.

## Frame Inventory Slot Allocation by Vendor: Example

| | SKU Allocation |
|---|---|
| Core Vendor 1 | 160 |
| Style 1 | 30 |
| Style 2 | 30 |
| Style 3 | 25 |
| Style 4 | 25 |
| Style 5 | 20 |
| Style 6 | 20 |
| Style 7 | 10 |
| Core Vendor 2 | 90 |
| Style 1 | 30 |
| Style 2 | 20 |
| Style 3 | 20 |
| Style 4 | 10 |
| Style 5 | 10 |
| Value Vendor | 70 |
| Style 1 | 30 |
| Style 2 | 20 |
| Style 3 | 20 |
| Total Designer Brands | 330 |
| Designer Brand 1 | 60 |
| Designer Brand 2 | 60 |
| Designer Brand 3 | 60 |
| Designer Brand 4 | 50 |
| Designer Brand 5 | 50 |
| Designer Brand 6 | 50 |
| Total Luxury Brands | 50 |
| Luxury Brand 1 | 25 |
| Luxury Brand 2 | 25 |
| Total | 700 |

## About the Management & Business Academy

*The Management & Business Academy ™ (MBA) was founded in 2005 as a premier business-building program to help independent optometrists to boost their practice performance. The program, which is sponsored by Essilor, includes educational seminars with leading business management experts, where the focus is on easy-to-implement strategies to improve offices processes and financial results. In conjunction with the seminars, participating ODs can complete a detailed online survey that generates a personalized MBA Optometric Practice Performance Assessment, an individualized report that compares the performance of a practice to national norms. Aggregate results of the survey, completed by more than 1,900 practices to date, comprise the MBA data base. In addition, the MBA regularly conducts surveys of optometry practices and publishes MBA Insights and MBA Essentials. All MBA resources are found at www.MBA-ce.com.*