How To Optimize Inventory Turnover Rates

Keep Cash In The Bank And Reduce Missed Sales Opportunities With This Formula

By Alan Roseman

Imagine the following scenario. You've tightened the screws over the last year, trimmed the fat, and done everything you can to fine tune your business to meet the current challenges. Things are starting to feel better intuitively and you sit down with your CPA to go over the results. After reviewing your books, your accountant turns to you: "I have good news and bad news. The good news is that you didn't lose any money last year. While sales were off, you managed to keep your expenses in line. The bad news is that your trade payables are up and you have no money in the bank!"

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I often ask my clients (and future clients) at the end of a month, season, or year, "Would you like cash in the bank or surplus merchandise on the racks." Too much inventory in the wrong class ties up working capital and creates an over-inventoried position. Not enough inventory in the right class results in lost sales. The answer to the above question isn't a simple one. It depends on a variety of factors including your overall philosophy, but its implications for the success of your business, especially in lean times is all-important. The balance and flow of inventory in each classification of your store helps maintain sales and cash flow. One mantra I always adhere to is: "If you want to improve a situation, start by measuring it," and the best measure of effective inventory levels I have found is inventory turn rates geared to each and every classification in the store. Not the store in general. Not brands, but each and every classification. While all of these are important, it's the last that will help you determine the answer to my earlier question.

Inventory Turnover

Inventory turnover is a measurement of how many times the retail inventory is sold during a twelve-month period. Please keep in mind that while total store turn rates are important to know, turn rates are much more meaningful when viewed at the classification level (T-shirts, shoes, skateboards, etc.). Vendors are not classifications. It is important to note that inventory turn rates are a measurement tool and turn rates vary according to the class, individual store's geographic locations, store personality, customer demographics, and merchandise mix.

The Formula

Unfortunately, not all point-of-sale systems have the ability to accurately calculate inventory turnover rates - but not to worry. Inventory turnover is easy to calculate, especially if you practice proper record keeping in your store. A practice that you should all have dialed these days, right? The formula is simply:

Turnover = Sales ÷ Average Inventory

1st of Month	Sales (Retail)	Inventory (Retail)
Jan	3,000	1,400
Feb	3,200	1,520
Mar	4,000	1,850
Apr	4,850	2,020
May	4,320	1,710
Jun	3,600	1,630
Jul	3,100	1,710
Aug	4,000	1,920
Sep	3,870	1,730
Oct	3,060	1,440
Nov	3,980	1,530
Dec	4,990	2,440
Dec (Mo. end)	3,210	____
Totals	**49,180**	**20,900**

Average Inventory: $49,180 ÷ 13 = $3,783
Turnover: $20,900 ÷ $3,783 = 5.5

Turnover is calculated over a continual twelve-month period of time. It is twelve consecutive months of retail sales divided by the average retail inventory for the same twelve-month period. To calculate turnover, take the first-of-month inventory amount for twelve consecutive months plus the ending inventory at the end of the twelfth month and divide this total amount by thirteen. This will yield the average inventory amount. Now divide the total sales for the same twelve-month period by the average inventory amount to get the inventory turnover rate.

Note: Turnovers can be calculated as retail sales to average inventory at retail amounts or sales at cost to average inventory at cost. But turnover should never be calculated combining retail and cost amounts. Apples to apples, oranges to oranges.

How Does Turnover Affect Cash?

Surplus inventory sitting on your racks at the end of the season means you bought the wrong goods or too much goods. Wouldn't you like more cash in your bank account at the end of a season instead? On the flip side, not having enough inventory results in stock-outs or insufficient selection during the season and will likely result in lost sales with the same impact of less cash in your bank account. The best situation is to have an inventory selection that is just right, and a fine tuned level of turn is the result of this balance, and comes from knowing what to expect for each inventory category.

Increasing turn without sacrificing lost sales is the science of merchandise planning. In the example above, the formula for turnover yields a 5.5 turn. This means that in this class the inventory was sold and replaced 5.5 times during the twelve-month period. This may be a great turn rate for skateboards or other merchandise that can be ordered weekly, but it may be too fast for a classification like men's pants. Due to the number of styles, fabrics, colors, and sizes, perhaps a turn rate of 3.0 would be more appropriate to yield a better selection for your customers' needs. But what if your turn on pants is only 1.5? This could indicate that previous seasons' styles didn't sell and are still sitting in the racks tying up valuable floor space and cash.

So what does that look like on your books?

Pant Sales

$60,000 ÷ 1.5 turn = $40,000

$60,000 ÷ 3.0 turn = $20,000

The difference in turn equals $20,000 tied up in inventory at retail potential or $9,600 inventory cost savings assuming a 52% IMU on the pants. Which goes back to our original question, would you rather have surplus pants on the racks or $9,600 cash in the bank?

"I am always asked what are considered good inventory turnover rates, and my response is a nebulous 'it depends.' The answer to that question is different for every store, every class, and every situation."

Your goal should be a 3.0 turn rate or better, and this is reached by properly landing the correct amount of inventory necessary to drive profitable sales for each month during a twelve-month period. This is accomplished by optimizing peak inventory levels for the key selling months and reducing inventory levels by category during non-peak periods while maintaining a respectable inventory level for the class to not miss sales. This is accomplished on a monthly basis by having the correct stock-to-sales ratio for each month of your merchandise plan.

The key benefit of increasing turnover is that fewer end-of-season markdowns need to be taken, which increases gross profit dollars. (See *TransWorld Business* July 2009.) But more isn't always better. It's all about balance as the benefit of not overinflating turn is to increase inventory selection throughout the year. Your goal is to get turn just right with the benefit of having optimal cash in the bank.

What Are Optimal Inventory Turn Rates?

I am always asked what are considered good inventory turnover rates, and my response is a nebulous "it depends." The answer to that question is different for every store, every class, and every situation. That being said, here are some general turn rates by department (not class):

Men's Apparel = 2.5 to 4.0
Women's Apparel = 3.0 to 4.5
Surfboards = 2.0 to 3.5
Skate Department = 4.0 to 6.0

Do you have the correct turn rates for each of your classes in your store? Will you transition into next season without excessive markdowns? Will your CPA give you good news or bad news? The answers to those questions start long before the first customer of the season walks through the door with a hard look at turn rates in your business planning.

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