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ASK ALAN I BY ALAN FRIEDMAN

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Alan,

I enjoyed your article in the June issue of Music Inc. ("Won't Get Fooled Again") and have a question related to inventory shrinkage. I've dealt with a lot of shrinkage over the years, especially when I was operating 45 record stores back in the '70s. Records and tapes were shoplifted with ease, pilfered by employees and seemed to simply evaporate from the shelves.

When we did have dramatic shrinkage, we confronted it. We believed that shrinkage dollars came out of our bottom line dollars (net profit). I once told our folks in a particularly bad store that the previous year the company had a net profit of 1 percent. The cost of goods for an LP or cassette at that time was $\$ 4.25$. In my mind, we had to do $\$ 425$ in sales to truly recoup the theft of one LP - pretty dramatic, but pretty true in our case.

In your example of the 3percent shrink, what would be the dealer's year-end net profit? If it was 5 percent, the dealer would have to do an extra $\$ 600,000$ to make up that $\$ 30,000$ of inventory

the true cost of inventory shrinkage on a music products retailer
shrinkage, right? Is my math flawed, or am I just cooking the books in order to scare the hell out of dealers everywhere? Rick Albert, National Accounts Manager Tyler Retail Systems/Tylernet Clearwater, Fla.

Rick,
Thanks for asking such an important and timely financial question, given our year-long series on inventory management. You happen to be correct in all of your comments and observations. Although the amount of your "make-up sales" is slightly debatable, your premise is correct and is a popular theory with more truth than error. Let me explain.

First, let's define the term "inventory shrinkage" for our readers by way of example. Let's assume a music store doing annual sales of $\$ 1$ million is carrying $\$ 350,000$ of inventory (at cost) on its books, consisting of thousands of items of musical products. This aggregate inventory cost is reported on the company's balance sheet as a current asset.

Now let's assume the store just performed a "physical inventory," where it counted, re-counted and valued every item in its possession at the item's purchase cost, including freight-in charges. The total cost value of the store's inventory based on its physical inventory count came to $\$ 320,000$. Accordingly, its inventory has apparently
"shrunk" by \$30,000.
So, let's begin to answer Rick's question by furthering the example of our music store doing $\$ 1$ million of sales at a 30 percent gross profit margin and a 3-percent net income. Let's also assume it's doing a poor job of managing and safeguarding its inventory as evidenced by the $\$ 30,000$ of inventory shrinkage. Now let's take a look at our store's year-end income statement in Chart 1 (next page).

Chart 1 is a common financial statement, showing typical info like sales, gross profit, operating expenses and net income. Rick's question is essentially "How much additional sales volume does our store need to make up the $\$ 30,000$ of inventory lost to shrinkage?" Is it \$100,000 ( $\$ 30,000$ of shrink divided by the store's 30 -percent gross profit percent)? Is it $\$ 1$ million ( $\$ 30,000$ of shrink divided by the store's 3 -percent net income)? I believe the answer lies somewhere in the middle.

Now, take a look at Chart 2, which is the same financial information formatted in a different manner, breaking out the store's operating expenses between those that are "vari-

| CHART 1: THE TYPICAL MUSIC STORE STAIEMIFNI OF INCOME (STANDARD FORMAI) |  |  |
| :---: | :---: | :---: |
|  | DOLLARS | PERCENT |
| NET SALES | \$1,000,000 | 100.0 |
| COST OF GOODS SOLD | 700,000 | 70.0 |
| GROSS PROFIT | 300,000 | 30.0 |
| OPERATING EXPENSES |  |  |
| Sales commissions and payroll taxes | 120,000 | 12.0 |
| Administrative salaries and payroll taxes | 30,000 | 3.0 |
| Advertising | 35,000 | 3.5 |
| Rent and utilities | 30,000 | 3.0 |
| Bank and merchant fees | 15,000 | 1.5 |
| Insurance | 12,000 | 1.2 |
| Store supplies | 10,000 | 1.0 |
| Professional fees | 5,000 | 0.5 |
| Office expense | 3,000 | 0.3 |
|  | 260,000 | 26.0 |
| INCOME FROM OPERATIONS | 40,000 | 4.0 |
| OTHER EXPENSE |  |  |
| Interest | 10,000 | 1.0 |
| NET INCOME | \$30,000 | 3.0 |



|  | DOLLARS | PERCENT |
| :--- | ---: | ---: |
| NET SALES | $\$ 1,000,000$ | 100.0 |
| COST OF GOODS SOLD | 700,000 | 70.0 |
| GROSS PROFIT | 300,000 | 30.0 |
| VARIABLE EXPENSES |  |  |
| Sales commissions and payroll taxes | 120,000 | 12.0 |
| Advertising | 35,000 | 3.5 |
| Bank and merchant fees | 15,000 | 1.5 |
| Store supplies | 10,000 | 1.0 |
|  | 180,000 | 18.0 |
| OPERATING INCOME BEFORE FIXED EXPENSES | 120,000 | 12.0 |
| FIXED EXPENSES |  |  |
| Administrative salaries and payroll taxes | 30,000 | 3.0 |
| Rent and utilities | 30,000 | 3.0 |
| Insurance | 12,000 | 1.2 |
| Professional fees | 5,000 | 0.5 |
| Office expense | 3,000 | 0.3 |
|  | 80,000 | 8.0 |
| INCOME FROM OPERATIONS | 40,000 | 4.0 |
| OTHER EXPENSE |  |  |
| Interest | 10,000 | 1.0 |
| NET INCOME | $\$ 30,000$ | 3.0 |

able" and those that are "fixed" in nature. Variable expenses are those expenses that will increase or decrease as sales volume increases and decreases. Sales commission is a good example of a variable expense. Fixed expenses are those expenses that will, for the most part, remain at the same level whether our sample store does \$1 in sales or \$1 million in sales. Rent expense is a good example of a fixed expense.

By looking at the operating income after variable expenses, but before fixed expenses, we can begin to calculate the additional sales volume our store needs to do to make up the $\$ 30,000$ of shrink.

By dividing the store's shrinkage, $\$ 30,000$, by its oper-ating-expense percent before fixed overhead, 12 percent, we arrive at $\$ 250,000$ of additional sales needed to make up our inventory lost to shrinkage. In other words, our store needs to do an additional \$250,000 of sales to generate enough operating profit, at 12 percent, to make up for the $\$ 30,000$ shrink.

Rick, the only flaw in your calculation is that by using the "net income" percent you are assuming that all expenses go up as sales volume goes up; it's really only the variable expenses. However, your record store may have been a business where most of the expenses were, in fact, variable or perhaps semi-variable.

Either way, you are totally correct in your assumption that the dollars needed to make up for inventory shrinkage are dramatically greater than the shrinkage dollars itself - a most excellent point that all retailers should make note of. IMI

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[^0]:    Alan Friedman, CPA, provides accounting and financial services to music industry clients. He is a frequent speaker at NAMM U. seminars and can be reached at 860-521-3790 or alan@fkco.com.

