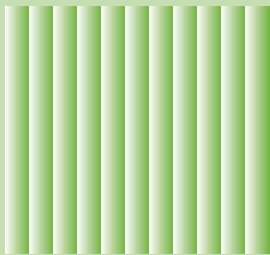


ROI | INCOME STATEMENT | EXPENSES IN RELATIONSHIP TO GROSS MARGIN | BALANCE SHEET |  
FINANCIAL RATIOS | ASSET PRODUCTIVITY RATIOS | MERCHANDISING PROFILE | EMPLOYEE  
PRODUCTIVITY RATIOS | SALES VOLUME ANALYSIS | REGIONAL ANALYSIS | TREND ANALYSIS

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# Profit Improvement Report

“The Cost of Goods Not Sold”

Sponsored By the Door and Hardware Institute

# **Profit Improvement Report**

**Prepared for DHI**

**Vol. 19, No. 1**

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## **The Cost of Goods Not Sold**

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One of the realities of management information systems is that they only express what actually happened. In many instances, it is important to understand the financial and operating impact of what didn't happen. This is especially important with regard to missed sales opportunities.

Given the severity of the recession many firms are making some major changes in their operations—lowering payroll, reducing inventory levels and tightening credit policies. Such actions have a very pronounced and very visible impact on financial performance. At the same time, all of these actions have the potential to decrease sales. Nowhere in the MIS is there a proper entry for the economic impact of sales that are not made.

This report will examine the impact of lost sales on industry profit performance. It will do that by addressing two key issues:

- **Understanding Sales Sensitivity**—An examination of how even modest missed sales opportunities decrease profitability.
- **Rejuvenating Sales Results**—A discussion of the alternative approaches available to management to drive higher sales volume without increasing operating expenses.

### **Understanding Sales Sensitivity**

It should be noted from the start that incremental sales volume is almost always a mythological creature. The assumption that adding new customers doesn't increase costs because "the truck is going right by there anyway" always proves inaccurate in the harsh realization that expenses are incurred on every sale.

However, there are a few instances when incremental sales volume is a very relevant and useful concept. This is particularly true in the context of generating additional sales volume from the existing operating structure. That is, selling more of the current product line to existing customers. In such instances, the expense impact, at least with respect to fixed expenses, is negligible.

**Exhibit 1** presents financial information for a typical DHI member based upon the latest results from the PROFIT Report. As can be seen in the first column of numbers, the typical firm generates \$10,000,000 in sales, operates on a gross margin percentage of 30.0% of sales and produces \$300,000 in profit or 3.0% of sales on a pre-tax basis.

Like every firm in every industry, this typical DHI member has both fixed expenses and variable expenses. Fixed expenses are overhead expenses that tend to be difficult to shed as sales fall. Variable expenses, including things like commissions, are expenses that rise and fall with sales volume. For analysis purposes, variable expenses are assumed to be 5.0% of sales—a figure that would be reasonably close for most DHI members.

In the next two columns of numbers, sales have been increased by 5.0%. The second column reflects a sales increase with no change in either the expense or gross margin structure of the firm. That is, the firm really is selling more of its existing products to existing customers without lowering its prices. Therefore, fixed expenses remain the same while variable expenses rise with sales.

The impact on profits is significant. With a 5.0% sales increase, profits increase by 41.7%, from \$300,000 to \$425,000. This clearly demonstrates the sales sensitivity for firms in the industry. Once again, this is all predicated upon finding truly incremental sales volume, something easier said than done.

Unfortunately, the hunt for incremental volume is almost always associated with price reductions to induce the incremental sales. Once price reductions on incremental sales take place, price reductions on almost everything tend to follow. Taking this path easily negates the sales gain.

The final column of numbers examines the gross margin reduction that would exactly offset the sales increase and leave the dollar profit number unchanged. The figures in this column are not intuitive, so they need some additional explanation.

In the second column, sales cost of goods and gross margin were all increased by 5.0%. In the third column, the increase in cost of goods sold associated with more sales stays where it was in the second column, at \$7,350,000. However, prices on the same physical volume are reduced by 1.3%, so sales do not reach the \$10,500,000 level. Instead they only increase to \$10,368,421. At the lower sales level and the same cost of good sold, gross margin falls to 29.1% of sales.

The net result is that dollar profits do not improve, but remain where they were originally. However, the firm is working 5.0% harder to generate the same unit sales. The important message is that incremental sales volume is a wonderful concept when it truly is incremental. However, the opportunities to destroy the profit impact of true incremental sales abound. To be successful, fixed expenses must stay fixed and the gross margin percentage must not fall.

## Rejuvenating Sales Results

At first blush, generating incremental sales volume in a sluggish economy would appear to be virtually impossible. The reality, though, is that many of the actions that firms take to diminish the financial burden of the recession actually end up lowering sales. Sometime not doing things that hurt is as important as doing things that help. Three of these issues are particularly important:

- **Inventory Reductions**—Almost every firm has tried to reduce inventory for cash flow reasons. The almost universal reality is that sales suffer from an increased frequency of out-of-stock situations. Clearly, firms are caught between an inventory “rock” and a sales “hard place.” While inventory reductions may be necessary, they need to be highly targeted. Blanket cuts in inventory levels or management edicts to cut purchasing must be avoided.
- **Accounts Receivable Reductions**—This follows an almost identical logical process as inventory reductions discussed above. Certainly bad debt problems increase in a down market. However, every reduction in a customer’s credit line is a potential sales opportunity that is missed.
- **Lag in Add-On Selling**—Every salesperson has been beat up by the recession in some way. One result is that the enthusiasm for add-on selling is greatly diminished. The quickest way to drive incremental sales, though, is to cajole or motivate the sales force into making an extra commitment to this process.

## Moving Forward

Economic conditions have created measurable sales challenges for almost every DHI member. In too many cases, though, cash flow challenges have caused firms to make the problem even worse. In particular, reductions in inventory and accounts receivable often hurt sales as much as they help cash flow. In addition, management teams that are stretched thin often do not monitor sales productivity—as opposed to total sales—to the extent that they might otherwise. As a result, sales per salesperson causing can fall. If these issues can be dealt with directly, some sales relief can be achieve. The impact on the bottom line can be dramatic.

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### About the Author:

Dr. Albert D. Bates is founder and president of Profit Planning Group, a distribution research firm headquartered in Boulder, Colorado.

## A Managerial Sidebar: Targeting Sales Needs

A variation on the break-even formula can be used to measure how much of a sales increase is required to generate a target level of profit. This approach is valid as long as the sales are truly incremental. That is, they can be generated without an increase in the fixed expenses.

The formula is fairly straight forward. It is illustrated below with numbers for the typical DHI member. In the example, it is assumed that the firm would like to double its profits—from the current \$300,000 to \$600,000. The answer is that sales would have to rise to \$11,200,000, an increase of 12.0%.

$$\begin{array}{rcl}
 \text{Sales} & = & \text{Fixed Expenses} + \text{Target Profit} \\
 \text{Goal} & & \text{Gross Margin \%} - \text{Variable Exp. \%} \\
 & & = \\
 & & \frac{\$2,200,000 + \$600,000}{30.0\% - 5.0\%} \\
 & & = \\
 & & \frac{\$2,800,000}{25.0\%} \\
 & & = \\
 & & \$11,200,000
 \end{array}$$

**Exhibit 1**  
**The Impact of a 5% Sales Increase**  
**For a Typical DHI Member**

<u>Income Statement</u>	<u>Current</u>	<u>5.0% Sales Increase</u>	
		No Margin or Expense Change	Gross Margin Decrease
Net Sales	\$10,000,000	\$10,500,000	\$10,368,421
Cost of Goods Sold	<u>7,000,000</u>	<u>7,350,000</u>	<u>7,350,000</u>
Gross Margin	3,000,000	3,150,000	3,018,421
Fixed Expenses	2,200,000	2,200,000	2,200,000
Variable Expenses	<u>500,000</u>	<u>525,000</u>	<u>518,421</u>
Total Expenses	<u>2,700,000</u>	<u>2,725,000</u>	<u>2,718,421</u>
Profit Before Taxes	\$300,000	\$425,000	\$300,000
 <u>Percent of Sales</u>			
Net Sales	100.0	100.0	100.0
Cost of Goods Sold	<u>70.0</u>	<u>70.0</u>	<u>70.9</u>
Gross Margin	30.0	30.0	29.1
Fixed Expenses	22.0	21.0	21.2
Variable Expenses	<u>5.0</u>	<u>5.0</u>	<u>5.0</u>
Total Expenses	<u>27.0</u>	<u>26.0</u>	<u>26.2</u>
Profit Before Taxes	3.0	4.0	2.9



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