

## ■ Section Five: **The Profitability Sweet Spot**

The previous sections identified the impact of the CPVs individually. In this section attention will turn to how the CPVs could—or even should—be combined to produce the largest possible profit.

One obvious approach is that the firm should do everything better than its competitors. This is an extension of the High/Low Test that was used in the previous sections. It means that the firm performs better than the typical firm on *each* of the CPVs. That is, it has higher sales volume, more rapid sales growth, a higher gross margin percentage and a lower operating expense percentage than its peers. It also has a higher rate of inventory turnover and collects faster, even though those two CPVs were noted to be double-edge swords.

Doing everything better than the firm's peers is, of course, easier said than done. Actually, it is close to impossible to do. Out of the 885 firms in the research project, exactly 9 had a perfect score on managing all of the CPVs better than the typical firm in their lines of trade. Their reward is a PBT that is 128.6% higher than typical and an ROA that is 182.5% higher.

Even if firms tried to achieve perfection, they are unlikely to reach it. Every firm has a tendency to emphasize some part of the business more than others. Some firms have a sales orientation, others emphasize asset control and the like. This simply reflects the different perspectives of different management teams. Few firms—9 out of 885, or barely more than 1.0%—can reach perfection.

However, it may not be necessary to strive for perfection. It might be possible to identify a group of CPVs that could be managed collectively to produce a strong profit improvement. That effort is the theme of this section.

### **A Three-Pronged Approach**

This section examines the profit results associated with being better than the typical firm on *any three* of the six different CPVs. Again, this harks back to the High/Low Test that was used throughout the previous three sections. It does not involve

being in the fourth or fifth quintile on any of the CPVs. It merely involves being better than the industry norm on three CPVs.

As an illustration, the firm might be above typical in sales size, have a higher gross margin and collect faster. A second scenario might be to have faster sales growth, lower expenses and a higher rate of inventory turnover.

Three out of six is an arbitrary number, of course. It is not suggested that such an approach is ideal or even preferable to other combinations. Companies might very well strive to do better on two out of six or four out of six. It is, however, a relatively common theme in management—do three things better. It is also a group of CPV combinations that can be analyzed within the current data set.

There were six different CPVs evaluated in the previous sections of this report—sales size, sales growth, gross margin percentage, operating expense percentage, the DSO and inventory turnover. Three actions at a time produces twenty different CPV combinations. For want of better terminology, these will be referred to as twenty different Profit Plans.

It is important to remember that for both the DSO and inventory turnover, quicker is viewed as better. There is some debate regarding this, as was noted earlier. However, the prevailing mentality in distribution at the present time is that firms should try to collect faster and have a higher rate of inventory turnover.

## The Profit Implications of Different Profit Plans

The first part of this section will examine how the plans impact PBT; the second part will relate the plans to ROA. PBT is being covered first simply because it is the profit ratio that most managers review most frequently.

**Exhibit 9** lists all of the plans ranked from the one with the largest positive impact on PBT down to the one with the smallest impact. The left side of the exhibit consists of a series of check marks identifying which of the three CPVs are incorporated into the specific profit plan. For each of the twenty plans three items are reported:

- **Impact on PBT**—The percentage change in the PBT generated by the firms following each particular plan. As was the case throughout the earlier sections, this is based on the deviation from the median PBT.
- **Resulting PBT**—Using the three different sample firms from Exhibit 1 as a baseline, this presents the actual PBTs that would be produced if the statistical relationships held true.
- **Number of Firms**—This totals 1,924 firms which is a little more than twice the number of firms in the research project. This is because some firms fall into more than one category. For example, if a firm does four things well it will be assigned to two distinct three-at-a-time categories. A very few (9 firms) do everything well and some perform under the line-of-trade median on every factor.

**Exhibit 9**  
**An Analysis of Twenty Different Profit Plans**  
**and Their Impact on PBT**

	Sales Size	Sales Growth	GM	Oper. Exp.	DSO	Inv. Turn	Relative PBT	Resulting PBT			Number of Firms
								Low	Mid	High	
1			✓	✓	✓		147.5	2.5	6.2	8.7	42
2	✓		✓	✓			122.2	2.2	5.6	7.8	53
3		✓	✓	✓			120.5	2.2	5.5	7.7	42
4			✓	✓		✓	118.8	2.2	5.5	7.7	37
5		✓		✓	✓		65.6	1.7	4.1	5.8	121
6	✓			✓	✓		60.9	1.6	4.0	5.6	113
7	✓	✓			✓		58.7	1.6	4.0	5.6	104
8	✓		✓			✓	57.9	1.6	3.9	5.5	71
9	✓		✓		✓		57.9	1.6	3.9	5.5	79
10	✓	✓	✓				56.1	1.6	3.9	5.5	96
11				✓	✓	✓	50.0	1.5	3.8	5.3	124
12	✓	✓		✓			46.3	1.5	3.7	5.1	158
13		✓	✓		✓		43.5	1.4	3.6	5.0	97
14		✓	✓			✓	40.6	1.4	3.5	4.9	73
15	✓				✓	✓	36.8	1.4	3.4	4.8	96
16	✓	✓				✓	31.3	1.3	3.3	4.6	119
17		✓		✓		✓	31.0	1.3	3.3	4.6	145
18	✓			✓		✓	28.9	1.3	3.2	4.5	154
19		✓			✓	✓	28.8	1.3	3.2	4.5	114
20			✓		✓	✓	3.4	1.0	2.6	3.6	86
	✓	✓	✓	✓	✓	✓	128.6	2.3	5.7	8.0	9

As can be seen, every unique combination of three CPVs, when taken collectively, has a positive impact on PBT. This suggests that if a firm could focus randomly on any three CPVs and perform above the line-of-trade norm on those three, the resulting PBT also would be above the line-of-trade norm.

However, the improvement levels are far from equal. The range of impact is from 147.5% better for Plan One to 3.4% for Plan Twenty. Every combination produces results that are better than typical, but the range of improvement is massive.

Interestingly, managing all six of the CPVs more effectively increased PBT by 128.6% as shown at the bottom of the exhibit. The top four plans were virtually as profitable as the “all six” plan. This *may* reflect the benefit of doing a few things very well as opposed to doing everything fairly well.

The exhibit also indicates that the plans at the top of the list are heavily geared towards gross margin and especially operating expenses. Specifically, all six of the top profit plans involve controlling operating expenses. Four of the six also employ gross margin.

At the other extreme, all seven of the lowest-PBT impact plans included inventory turnover. Sales growth was a component of four of the seven lowest plans. The DSO and sales size were included in three.

Easily the most arresting finding in Exhibit 9 is that the combinations with the greatest impact on PBT are the least likely to be used by firms in the study. In point of fact, the four most-profitable plans were the four with the lowest incidence.

From a frequency of usage or “popularity” perspective, four out of the five most popular profit plans included sales growth as a component. This is consistent with the popularity of sales as an educational topic in distribution that was discussed in Section One.

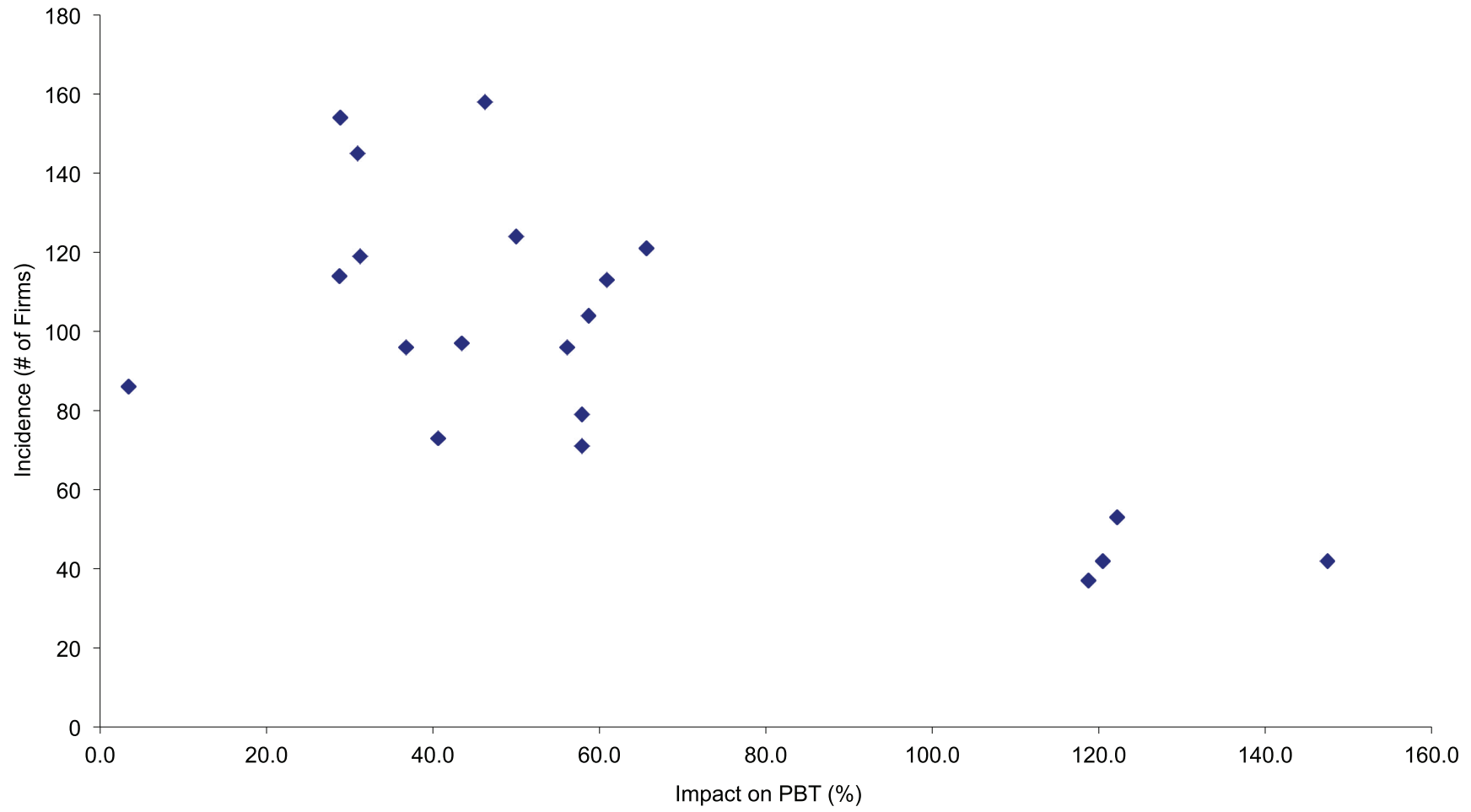
**Exhibit 10** provides a graphical representation of the data presented in Exhibit 9. For each of the twenty profit plans, the exhibit graphs the relative impact on PBT on the horizontal axis versus the number of firms employing the plan (incidence) on the vertical axis.

The imbalance between the impact on PBT and usage in distribution is obvious. The four real profit-enhancing combinations are resting somewhat forlornly at the lower right-hand corner of the exhibit.

It is not quite as obvious, but there is a popularity cluster of six plans towards the upper-left side of the graph. All six are widely implemented but are in the bottom half of the plans in terms of PBT improvement. The disconnect between the potential profit impact and the level of usage is disconcerting.

As long as increasing sales is viewed as fun and lowering operating expenses is viewed as drudgery, distributors may continue to emphasize profit combinations

**Exhibit 10**  
**The Relationship Between the Impact of Profit Plans on PBT**  
**and Usage by Distributors**



towards the bottom of the list in Exhibit 9. If increasing PBT can be defined as fun, then there is an opportunity to line up usage—enthusiasm if you will—with profit potential.

**Exhibit 11** takes the same exact approach that was employed in Exhibit 9, but applies it to ROA. The list of profit plans in Exhibit 11 is identical to the list in Exhibit 9. Since PBT and ROA are highly correlated, there is a strong degree of similarity between the two exhibits. However, the profit plans are ranked in a slightly different order.

Since ROA incorporates the investment component in measuring performance, both the DSO and inventory turnover rise somewhat in the rankings. This is true at both the top and the bottom of the list. Despite these slight modifications the lists are very similar.

Despite the re-ranking, the top four combinations in Exhibit 9 are also the top four combinations in Exhibit 11, albeit in slightly different order. They also continue, of course, to be the four that are employed the least by the firms in the research project.

It is useful to compare the impact of these four plans with the “all six” plan mentioned earlier. With regard to ROA there is a premium (182.5% higher ROA) from performing above the norm on every CPV. This is because two of the CPVs in the six-pronged plan incorporate a lower level of asset investment.

**Exhibit 12** provides a graphical interpretation of Exhibit 11. The structure remains the same as Exhibit 10, but the extremes are moderated somewhat. Even with less polarization, the differences between popularity and performance remain obvious.

## The Usage Conundrum

Collectively, the four previous exhibits concluded three things: First, performing better on any combination of three CPVs will improve financial results. Second, there is a wide variation in the profit impact from different CPV combinations. Third, the most popular combinations do not produce the greatest impact on profits.

**Exhibit 13** combines these three conclusions. It does so by examining the impact on PBT and ROA on the two axes of the graph. It then incorporates an analysis of the extent to which the different plans are employed.

The exhibit utilizes what is commonly called a bubble graph. The size of the bubble graphically represents the extent to which a particular profit plan is utilized. The larger the bubble, the more popular the plan is. The location of the bubbles reflects the plan’s impact on both PBT and ROA.

Bubbles towards the right represent plans with a large impact on ROA. Bubbles towards the top indicate plans with a large impact on PBT. Bubbles towards the upper right are plans with a significant impact on both PBT and ROA.

**Exhibit 11**  
**An Analysis of Twenty Different Profit Plans**  
**and Their Impact on ROA**

	Sales Size	Sales Growth	GM	Oper. Exp.	DSO	Inv. Turn	Relative ROA	Resulting ROA	Number of Firms
1			✓	✓	✓		156.4	20.5	42
2			✓	✓		✓	131.5	18.5	37
3		✓	✓	✓			117.6	17.4	42
4	✓		✓	✓			83.1	14.7	53
5		✓		✓	✓		69.9	13.6	121
6	✓			✓	✓		66.7	13.3	113
7	✓	✓			✓		64.3	13.1	104
8				✓	✓	✓	63.6	13.1	124
9	✓				✓	✓	56.6	12.5	96
10	✓		✓			✓	56.2	12.5	71
11	✓	✓		✓			54.8	12.4	158
12	✓		✓		✓		51.5	12.1	79
13	✓	✓	✓				51.0	12.1	96
14	✓	✓				✓	50.6	12.0	119
15		✓	✓			✓	50.6	12.0	73
16		✓		✓		✓	46.1	11.7	145
17	✓			✓		✓	40.7	11.3	154
18		✓			✓	✓	39.3	11.1	114
19		✓	✓		✓		37.7	11.0	97
20			✓		✓	✓	10.6	8.8	86
	✓	✓	✓	✓	✓	✓	182.5	22.6	9



Four plans clearly are leaders in improving both ROA and PBT. They are, unfortunately, the four CPV combinations that are the least utilized:

- Gross Margin, Operating Expenses and the DSO
- Gross Margin, Operating Expenses and Inventory Turnover
- Gross Margin, Operating Expenses and Sales Growth
- Gross Margin, Operating Expenses and Sales Volume Size

The redundancy of gross margin, operating expenses and something else is obvious. It would appear that the path to increasing profit, at least empirically, goes through the internal operations aspects of managing margins and expenses.

There is a mass of profit plans that impact both ROA and PBT in a modest way and are widely employed. They are all moderately effective as profit plans, but their profit impact doesn't really justify their prevalence.

Finally, there is one plan that has almost no impact on profitability, but is utilized more extensively than it would seemingly deserve. The plan incorporates gross margin which is part of the four most effective plans. In this case it is combined with an emphasis on both inventory turnover and the DSO.

The amalgam of gross margin and two investment factors as the lowest-performing, but widely-employed profit plan, may be nothing more than a statistical fluke. However, it conjures up memories of outmoded management metrics such as GMROI which try to tie gross margin and inventory (and in some cases gross margin and the DSO) together in a return on investment format.

The use of measures such as GMROI to evaluate items or gross margin per dollar of accounts receivable to evaluate customers continues to doom firms to employing anachronistic concepts in a technological age. More importantly it appears to lead directly to lower profit performance.<sup>4</sup>

## **Gross Margin and Operating Expenses as the Central Elements of a Profit Plan**

Both Exhibits 9 and 11 suggest that the most successful firms combine a strong gross margin percentage with a strong operating expense percentage. After that, it doesn't appear to make any real difference what additional strategy is employed. The problem in improving profitability is that very few firms appear to be able put together any of the most-profitable combinations of CPVs.

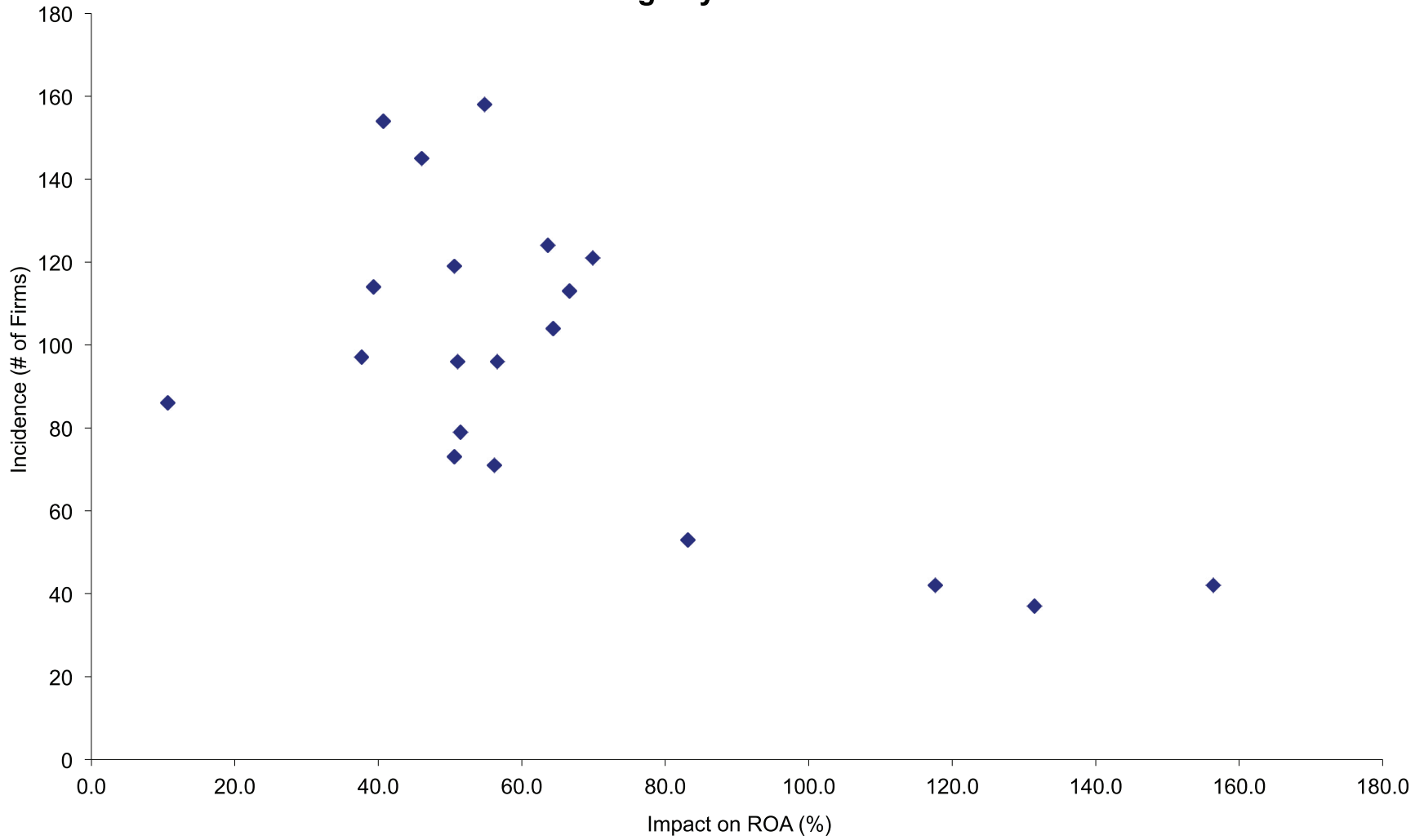
The central reason behind this is that gross margin percentage and the operating expense percentage are the only two independent variables in the analysis that are highly correlated. That means, quite simply, that firms with a high gross margin percentage almost always have a high operating expense percentage as well.

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<sup>4</sup> For a discussion of the problems with GMROI and suggestions for new approaches, see *Saying Goodbye to GMROI*, profitplanninggroup.com. The white paper is in the Seminars section.



**Exhibit 12**  
**The Relationship Between The Impact of Profit Plans on ROA**  
**and Usage by Distributors**



Raising the gross margin percentage relative to operating expenses is challenging. Combining a high gross margin percentage with a low operating expense percentage moves from challenging to incredibly difficult.

However, it seems likely that any firm able to modify or break the gross margin/operating expense relationship should generate exceptional profits. Consequently, it is useful to take a more detailed look at various gross margin and operating expenses relationships.

Specifically, this analysis looks at those firms that are able to move beyond the mid-point with regard to *both* gross margin and operating expenses and into at least the fourth quintile. This means that the firms are not performing inordinately well on either variable. By definition, they are merely better than 60.0% of the firms in the research project. What sets them apart was that they were able to outperform 60.0% of the firms on both metrics at the same time.

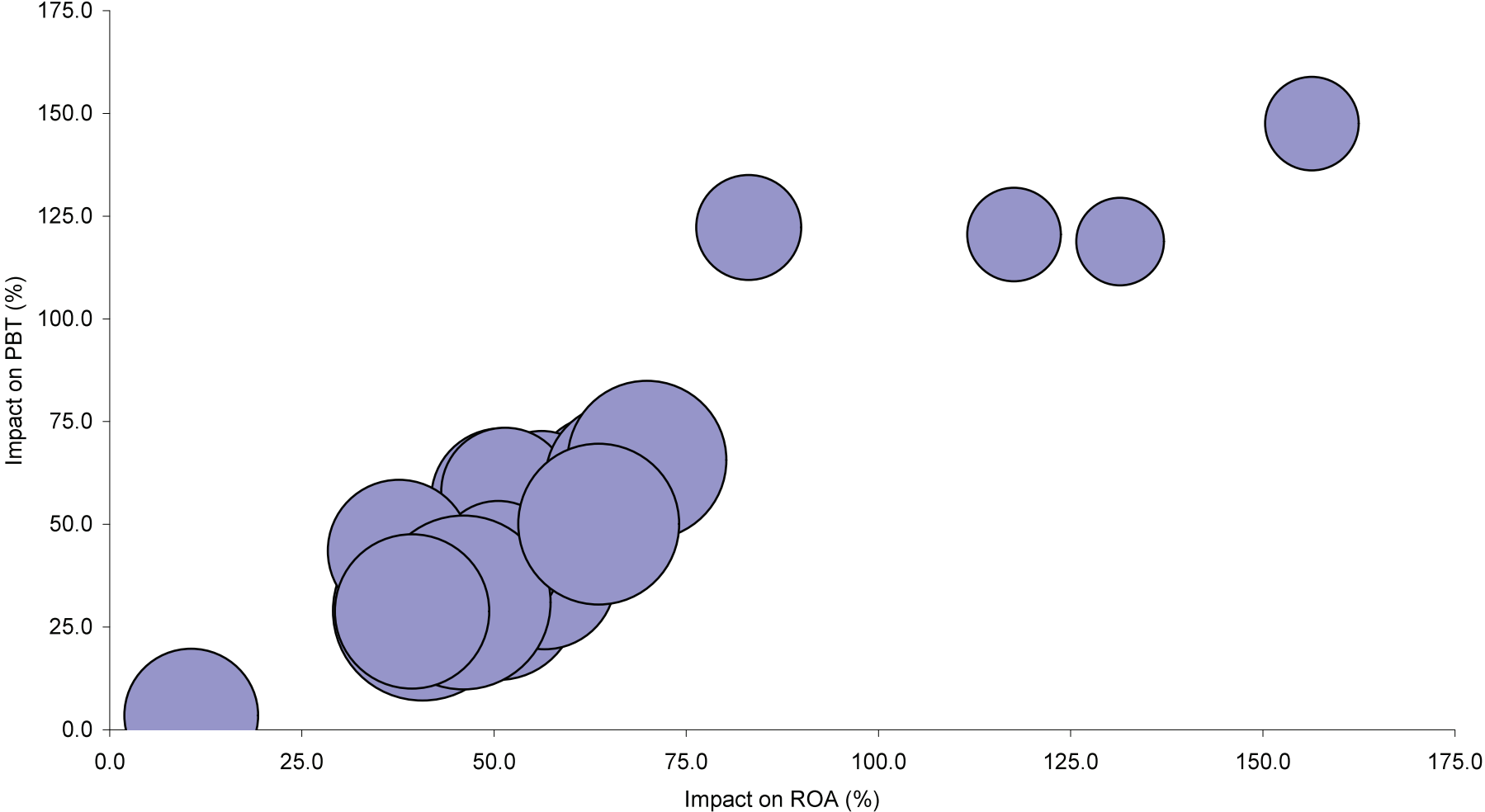
Only 35 out of 885 firms—slightly less than 4.0%—are able to reach this level of performance. However, the reward for doing so is huge. This group of firms collectively produces an ROA that is 189.7% higher than the norm. Put into actual ROA terms, they have a 15.2% ROA versus the 8.0% base results.

Given that both gross margin and operating expenses impact PBT and do not impact asset investments, the PBT difference is even greater. Firms in the superior group have a PBT that is 226.3% higher than the norm.

Any standard that can only be reached by 4.0% of the firms probably continues to be overly-aggressive in character. In an attempt to find a somewhat more attainable set of targets, three less-stringent performance combinations were examined.

- **Good Gross Margin/Adequate Operating Expenses**—This combination includes the firms that are in the top two quintiles with regard to gross margin (top 40.0% of the firms) and whose operating expenses were at least better than the typical firm. It can be thought of as a 40.0%/50.0% model.
- **Adequate Gross Margin/Good Operating Expenses**—This is simply the mirror image of the previous plan. It includes firms whose gross margin is at least better than the typical firm and is in the top two quintiles in controlling operating expenses. This is a 50.0%/40.0% model.
- **Good Gross Margin and Operating Expenses**—This raises the performance bar slightly by requiring results in the top two quintiles on both factors. This is characterized here as the 40.0%/40.0% model. This is the scenario that was discussed at the beginning of this section.

**Exhibit 13**  
**Impact on ROA and PBT**  
**by Incidence (Number of Firms Using)**



The profit results for any set of firms with superior performance with regard to both gross margin and operating expenses is impressive. The following table summarizes the results of the three combinations:

<b>Gross Margin</b>	<b>Oper. Exp.</b>	<b>Improvement In</b>	
		<b>PBT (%)</b>	<b>ROA(%)</b>
Top 40%	Top 50%	163.5	128.6
Top 50%	Top 40%	154.7	151.5
Top 40%	Top 40%	226.3	189.7

The profit improvements overwhelmingly demonstrate the importance of generating better than typical performance on both the gross margin percentage and the operating expense percentage. The clear implication is that firms need to know with some precision their position in their industry with regard to both factors. After that, they need to develop programs to reach the top 40% on at least one of the factors. Subsequent to those actions, it is somewhat immaterial what additional profit variables are emphasized.

### **Conclusions About the CPVs**

Research projects can do no more than provide insights into the operating dynamics of distributors. Ultimately, management must make the decision whether the research points towards a path that the firm can follow. This research clearly suggests that cost control via operational excellence has the greatest likelihood to improve profitability. If a firm has no appetite for controlling costs, then significant profit improvement will prove elusive.

Having said that, the four top profit-generating plans all combine gross margin and operating expenses. This combination can only be ignored if the firm can achieve top quintile performance, or better, on all of the other CPVs. It is difficult to imagine a reason why any firm would try to optimize performance on secondary CPVs when reasonable performance on gross margin and operating expenses holds such significant profit potential.

Interestingly if there is a stampede towards combining gross margin and operating expenses into a profit plan, the potential impact of such a plan may be reduced by overuse. That appears to be a risk worth taking.