

# THE DR. IS IN

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## BREAKEVEN DIAGNOSED!

Understand your numbers and make educated business decisions.

**K**nowing your numbers is the difference between making profit happen or just happening to make profit. Electronic systems contractors (ESCs) who understand their numbers use those numbers to make management decisions such as pricing and staffing. Those who do not understand numbers are accidents waiting to happen; sometimes they accidentally make a profit and sometimes they accidentally lose money! And if they accidentally make a profit more often than not, they stay in business. But in today's economy, it's not so easy to accidentally make a profit. It appears to be much easier to accidentally lose money, and sooner or later, the business can't survive.

In the June issue, I discussed the difference between markup and margin. Remember that margin is always calculated as a percentage of sales price. Using your margin to create a sales price is an important part of the sales process. Reviewing your financials is an important part of the management process. While your proposals contain an anticipated margin, your financials can show you your achieved margin.

Once you determine the margin you are able to achieve, you can then use that number to create a breakeven analysis. A breakeven analysis is simply a numbers game that relates the gross margin to sales, overhead and profit. It is an excellent tool that can help you answer the "what if" questions: What if I hire another project manager? What if my sales volume changes? Should I invest in more marketing?

### Breakeven example for increased overhead

For example, let's say that you are considering investing \$7,000 in a new marketing campaign. Should you do it? To answer that, you might consider a breakeven analysis.

First, let's look at the current financial statement:

Profit & Loss Statement		
Sales	300,000	100%
COGS	195,000	
Gross Profit	105,000	35%
Overhead	75,000	25%
Net Profit	30,000	10%

In this example, we've achieved a 35 percent margin. Now, you can use that number to help you make this decision. The formula we will use is Gross Profit divided by Gross Margin equals sales:

Gross Profit	Gross Margin	Sales
\$105,000	÷ 35%	= \$300,000

Next, let's add the \$7,000 for our new marketing campaign into our overhead. This means that our new overhead number is \$82,000. Technically, a breakeven company makes no profit—but for our purposes, we will include the profit as well. Therefore, if we want to maintain the same profit (\$30,000), and increase our overhead by \$7,000, we need to earn a Gross Profit of \$112,000. Using that same formula we can determine the sales we need to justify the marketing dollars and maintain our profit.

Gross Profit	Gross Margin	Sales
\$112,000	÷ 35%	= \$320,000

Therefore, our sales will need to increase from \$300,000 to \$320,000, an increase of \$20,000. We can look at it another way by isolating just the \$7,000 increase.

Gross Profit	Gross Margin	Sales
\$7,000	÷ 35%	= \$20,000

So, let's ask the question again: "Should we invest \$7,000 in marketing?" If we think that it will increase our sales by \$20,000, then the answer is yes. If not, then the answer is no.

### Using breakeven to calculate the effect of price change

This is just one example of using a breakeven analysis. Another "what if" game we can play relates to pricing. I've heard several ESCs say that they've had to reduce their prices just to get the jobs. So, let's ask the question: "What happens if I reduce my margin from 35 percent to 30 percent? What sales volume do I need to achieve in order to maintain my overhead and profit?"

Again, we use the same formula, but instead of changing the gross profit number, we change the gross margin number. If we keep the same

\$105,000 in gross profit, we can determine the sales volume needed to cover that overhead and profit, but at an achieved 30 percent gross margin.

Gross Profit	Gross Margin	Sales
\$105,000	÷ 30%	= \$350,000

Note that our sales must increase by \$50,000 if our achieved gross margin falls from 35 percent to 30 percent. Do you think you can sell \$50,000 more work by reducing your prices?

Perhaps you should consider the consequences of increasing your price. I can hear you shouting "NO," but let's just look at the numbers. What if you were able to do less work, but more profitably? What if you increased your sales price to achieve a 37.5% margin? Using the same formula, what would the sales volume need to be?

Gross Profit	Gross Margin	Sales
\$105,000	÷ 37.5%	= \$280,000

Notice that if you raised your prices, you could sell \$20,000 less, and still make the same profit. Just think about the sales that you are chasing. You might think about the work that you do and focus more on qualitative sales, instead of quantitative sales.

### Benefits of a breakeven analysis

While your numbers may vary, it's important to see the benefits of playing the "what if" game. Using a breakeven analysis can help you make these important decisions. After reading my June article on markup and margin, one reader sent an interesting e-mail. Chuck Kovacs said, "Profit is primarily a function of sales price (what you collect). It's the amount of the sales check deposited, not the cost of the product that counts. Granted, the reciprocal sales calculation (breakeven) may be a bit awkward to do, but the quicker a business makes the transitional focus to revenue and profit, the longer the business may stick around for another day." I agree. Understanding your numbers can help you make solid financial decisions for long term sustainability and survivability. **CR**

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