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From Chapter 37 of HTPLIP titled Gross Profit Margin: An estimator's Best Friend

MS Excel Figures (attached)

- None

Key terms

- None

PURPOSE

To explain how to:

- Define it
- Calculate it
- Monitor market trends with it
- Evaluate a business with it

INTRODUCTION

Gross profit margin is one of the most valuable tools an estimator has. However, it's not being discussed today in any real and meaningful way. Few estimators understand it, let alone track and use it in their bidding process. This is unfortunate.

******* How it works-start*******

In the late 1980s, a commercial landscape installation contractor in Maine consistently bid his work with a GPM in the mid-20 percent range. Jobs were plentiful and margins were good. However, in the fall of 1989, everything changed. The bottom fell out of the market and for the next four to five years, gross profit margins on bids had to reflect recessionary market conditions.

During this period, this contractor knew that, if his GPM on a bid was over 18 percent, he might as well not waste his time bidding the job, because he wouldn't be competitive enough to get it. Fortunately, from the mid-1990s on, this market changed and today this contractor is again bidding his commercial installation work in the mid-20 percent range.

In the early 1990s, a high-end residential installation contractor in Los Angeles was bidding on Phase 2 of a large four-phase residential project. Four contractors, including the contractor who did Phase 1, were invited to bid on the project. The first phase was $350,000. Subsequent phases would be in the same price range.

The recession in Southern California was in full swing at this time. Margins were tight and my client really wanted to get this job. He had me spend a day with him bidding this project. We were unsure why the owners were putting Phase 2 out for bid, but thought they might be dissatisfied with the original contractor. Consequently, we felt that, if we won Phase 2, we'd probably get Phases 3 and 4, which would mean the end of the recession for my client.

Prior to 1990, my client bid large residential installation jobs with a GPM in the middle to high 30 percent range. Two years later, jobs were so scarce and the market so tight that we bid work in the very low 20 percent range. My client bid this $300,000-plus job at 17 percent GPM.

Of the four bids provided, we were the second lowest. We'd beaten the original contractor's bid by $12,000, as he came in third. The fourth bid was much higher. The landscape architect and owners met and decided to throw out the low bid, which then made us the low bidder. My client was happy, and so was I, as I felt I'd done a good job for him.

However, the landscape architect called my client and informed him the owners decided that, for $12,000, they didn't want to change horses in midstream. It was then we realized we'd been "shopped." The owners and landscape architect probably never did intend to change contractors. Their intention, we thought, was to keep their guy honest but at the two other bidders' and our expense.

Imagine! We bid this project at 17 percent GPM, and still didn't get the job. The lesson is that things get ugly in a recession, and all the rules change.

******* How it works-end*******

GPM defined

Gross profit margin can be calculated two ways. The first is to subtract all your cost of goods sold from sales (or job price). The formula is as follows:

Sales (or job price) – COGS = GPM

The second way to calculate GPM is to add the G&A overhead to the net profit. This formula is as follows:

G&A overhead + net profit = GPM

Both formulas provide you with the same answer, whether expressed in whole dollars or as a percent.

GPM calculated

To calculate the GPM on a bid, you simply add the net profit to the G&A overhead allocated to the job. Or you can subtract the COGS from the bid price. Let's look at the following bid illustration for a small residential installation job.

$3,000	Materials with sales tax
$2,000	Labor
$ 500	Labor burden of 25 percent
$1,000	Equipment costs
$6,500	Total direct costs
$2,000	G&A overhead allocated to the job
$8,500	Break-even point
$1,500	Net profit margin
$10,000	Price for the job

Using our two methods to calculate GPM:

1. GPM = Price - COGS or $10,000 - $6,500 = $3,500 or 35%

2. GPM = G&A overhead + net profit margin or $2,000 + $1,500 = $3,500 or 35%

GPM market trends

Gross profit margin is the best indicator of what's happening in your market. This may not only be a geographical market, but a market segment within a particular geographical market. For instance, high-end residential installation in the Greater San Francisco market may be slowing down considerably, while the commercial maintenance in the same area is booming.

******* Main point:** Gross profit margin is the best indicator of what's happening in your market. **********

Basically, GPM reflects the supply/demand curve. In a "hot" economy, there's more than enough work for qualified contractors to perform. A limited number of qualified contractors are pursuing a market with excessive amounts of work to perform. It's not uncommon for customers to be more concerned with getting on your schedule than they are with price.

******* Main point:** GPM reflects the supply/demand curve **********

This was generally the common theme for installation work around the country from the late 1990s through 2000. "When can you start?" was one of the main concerns, if not the top one, for potential clients. This "hot" market drives margins and prices up.

This all changed in 2001, with the stock market corrections hitting many high-end residential markets in full force. Potential clients were much more timid, and began to shop around more and more. Here, you had a limited amount of work being pursued by an excessive number of qualified contractors. This "soft" market drives prices and margins down.

During the mid-1990s, we began to see gross profit margins increase for almost all types of work throughout the country. Gross profit margins dropped to recessionary levels in many parts of the country almost overnight when the recession started (in the late 1980s or early 1990s). Some areas didn't even experience the recession. For areas hit by it, it took years to return to normal levels.

Around 1994 I had a discussion with Rick Randall, president of Randall & Blake, Inc. of Littleton, CO. RBI, now part of American Civil Contractors, is a large environmental contractor that does work throughout the western half of the United States. At that time, Rick told me there was plenty of work, but that prices (margins) had not risen yet. As the economy continued to improve, margins and prices improved as well.

The following GPM ranges are for a "normal to hot" economy. Your GPM range may vary slightly.

- Residential installation: 30 to 40%
- Commercial installation:
    a. Normal to hot: 20 to 30%
    b. Negotiated work: 25 to 35%
    c. Competitive bid work: 20 to 25%
- Commercial & residential maintenance: 30 to 40%

- Irrigation service: 40 to 50%
- General tree work (all): 30 to 40%
- Chemical applications (all): 40 to 50%
- Lighting: 40 to 50%
- Christmas decorations: 40 to 50%

The following GPM ranges are for a “recessionary” economy. Again, your GPM may vary.

- Residential installation: 20 to 30%
- Commercial installation:
    d. Recessions: 15 to 25%
    e. Negotiated work: 20 to 25%
    f. Competitive bid work: 15 to 20%
- Commercial & residential maintenance: 25 to 35%
- Irrigation service: 30 to 40%
- General tree work (all): 20 to 30%
- Chemical applications (all): 35 to 45%
- Lighting: 30 to 40%
- Christmas decorations: 30 to 40%

[A] **Evaluating a business with GPM**

******* How it works – start *******

A large irrigation contractor in the Midwest was approached independently by the owners of two separate irrigation companies about buying them out. Sales for these two companies were in the $300,000 to $400,000 range. The mix of service and installation work for both companies was just about evenly split.

After signing and exchanging the appropriate documents, the first thing my client, the prospective buyer, did was to determine the gross profit margin for these companies over a two- to three-year period. To do so, he took the profit and loss (P&L) statements from the two companies and reformatted them to clearly and accurately identify cost of goods sold, G&A overhead and net profit. Upon completion of this exercise, my client could compare the ratios for the information on the two sets of P&Ls, to determine if they fell within normal standards for the industry. If they did, he could then confidently proceed to put a price on these companies.

******* How it works – end *******

There are a number of ways to evaluate a business and structure a buyout. Analyzing the GPM structure is one way to do so.

Market observations (helping a number of clients buy and sell businesses) indicate that the fair market value (FMV) for the "goodwill" or "blue sky" value of a service or maintenance business is approximately equal to its gross profit for one year. By goodwill or blue sky, I mean the value of the business apart from any of its assets.

******* Main point -** There are a number of ways to evaluate a business and structure a buyout. Analyzing the GPM structure is one way to do so. *********

Assets such as inventory, equipment, real estate, etc. are evaluated separately and usually at fair market value. By fair market value, I mean the value of an asset on the open market under current market conditions. For instance, when placing the value on a piece of equipment, you could ask your local equipment dealer to provide you with its FMV. Because your dealer probably buys and/or sells used equipment, he'll probably have a pretty good idea what it sells for. This is fair market value. You could also determine the FMV for a piece of equipment by placing a for-sale sign on it and putting it in your front yard. The price you get for it is its FMV. Personally, I'd talk to the equipment dealer first.

Theories abound as to why one year of gross profit is the fair market value for goodwill for a service or maintenance business. Here are some reasons why I believe it's used:

- It's an easy, objective number to calculate
- It's a number easily compared to industry standards
- Buyers believe they can maintain the sales and gross profit margins and pay for the purchased company in one year (two to three years, at the very most)
- Buyers believe their G&A overhead costs won't increase in proportion to the increased sales resulting from the purchase. Thus, the GPM on the increased sales for the purchased

company will mostly be free and clear net profit that the buyer can apply to the purchase price, if desired.

- Two years of gross profit just seems like too much to pay for blue sky or goodwill.

******* How it works-start*******

A few more stories

A large commercial maintenance contractor in New England was bidding on a $450,000-plus contract in a recessionary market. He decided to bid it with a GPM near 28 percent. This was just above his break-even point (total direct costs plus G&A overhead costs). His theory was that if he won this job, his G&A overhead for the company would not increase significantly.

Therefore, much of this 28 percent gross profit would actually be additional net profit for his company. Because he'd been monitoring the gross profit margins on his bids for some time, he knew a 28 percent GPM would be very competitive in his market and would probably win this contract for him. This strategy worked, as he won the bid and it did help his bottom line.

For a number of years prior to the 2002 Winter Olympics, a mid-sized commercial installation company in Utah was realizing net profit margins in the vicinity of the high teens to low 20-percent range. A number of very large contractors came into the Utah market to pursue work related to the Olympics. However, the additional supply of qualified contractors doing commercial work didn't affect this contractor, as there was plenty of work for everybody.

Most of the "big boys" left town after the Winter Olympics work was completed. That is, all of them except one. As the amount of commercial installation work fell, this large, 800-pound gorilla began grabbing market share, driving margins down considerably. Until this company decides to leave town or increases the margins on their bids, or until the supply of work increases significantly, this market won't experience the margins it did in the 1990s.

******* How it works-end*******

SUMMARY

Gross profit margin is a critical concept for the serious estimator and contractor to understand. It's one of the most important tools an estimator has. It will provide the savvy businessperson with an "absolute" benchmark of sorts for measuring his or her bids against those of competitors.

GPM basically reflects the supply/demand curve. As the supply of work remains constant and the number of legitimate contractors increases, prices and margins will decrease. Conversely, as the supply of work increases and the number of legitimate contractors remains the

same, prices and margins will increase. Essentially, gross profit margin is the best indicator of what's happening in your market as it reflects market conditions. On entering a recession, contractors often respond with knee-jerk reactions and start bidding jobs at their break-even point.

GPM is also a very helpful tool to use when evaluating the goodwill or blue-sky portion of a service or maintenance business. For whatever reason, one year of gross profit is the going rate or fair market value for the goodwill for such a business.

ACTION POINT

Review the GPM on bids that you have already completed. Do this for jobs that you have lost as well as for ones that you have won. Look for patterns and try to identify trends in the amount of GPM in your bids. You should also review the actual GPM achieved on the jobs that your crews have performed and completed in the field.

Compare the results of your analysis with the industry benchmarks discussed in this chapter.

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This article was adapted from James Huston's new book and audio book, ***How to Price Landscape & Irrigation Projects***, released in July 2003 and his previous book, ***Estimating for Landscape & Irrigation Contractors***. The author is president of J.R. Huston Enterprises, Inc., which specializes in construction and services management consulting to the Green Industry. Mr. Huston is a member of the American Society of Professional Estimators and he is one of only two Certified Professional Landscape Estimators in the world. For further information on the products and services offered by J.R. Huston Enterprises, call 1-800-451-5588, e-mail JRHEI at jrhei@jrhuston.biz or visit the J.R. Huston Enterprise web site at http://www.jrhuston.biz.