Pricing for Profit

A workable pricing model that keeps you profitable — even with the least profitable jobs.

BY DAVE KING

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Digital Graphics spends a lot of time talking about market trends, new equipment and interesting application techniques. However, in order to make money in this industry, *you need to know how to price prints*. How does one offer an attractive price but still make a healthy profit at the end of the day? Good question! The problem is, there are a huge number of answers. I'll do my best to point you in the right direction.

First, there are several schools of thought on pricing. Some people feel that each machine should return a set dollar amount per hour to achieve a return on investment (ROI). Others believe that taking the cost of the job and marking it up a certain percent is the way to go. Still others say, "Get what you can get for the job". The guys from accounting/business school say it's strictly a matter of the cost of goods/sales vs. expenses. I like that approach best.

CONSIDERING OVERHEAD

Lets start by getting a handle on the cost of running a business; then we can look at pricing the prints. Every business has fixed costs and variable costs — digital printers included. Clearly, expenses must be covered or any business will quickly fail. Let's start by breaking down overhead costs with a simplified chart.

Based on the figures in **Table 1**, I would have to generate a profit of more than $330 per day (just under $7,000 per month) to cover fixed costs and simply break even. But I'm not in the business of breaking even!

Fixed (overhead) costs remain the same regardless of sales volume. In other words, if I only sell one poster a day, the cost to produce that poster is more than $330; but if I instead sell 100 mounted PVC sheets that day, then my burdened cost is only $3.30 per board. I hope you see where I'm going.

Considering overhead costs will determine how much needs to be made each month to maintain profitability. Now, let's look at how to make money; after all, making money is what this is all about.

USING THE WORST CASE

To create my pricing model, I like to start by calculating my *worst-case, maximum waste* job.

This worst-case model assumes that every print I run will be 30" x 30" (on a 60" printer), but won't allow for doing two-up 30" prints because my typical material is 54" wide. This gives me a good idea as to my *total exposure*, as there will be plenty of waste involved.

Let's assume that my printer outputs at two inches a minute (at 600+ dpi) and I'm only printing at 30" wide. This gives me print output of about 25 square feet per hour. Let's say that between my busy days

FIXED COSTS		EXAMPLE	FORMULA	YOUR NUMBERS
Square footage of your facility	A	2,500		
Total montly costs of facility (rent, heat, light, trash, etc.)	B	$1,850.00		
Monthly cost per square foot for your facility	C	$1.35	A ÷ B	
Total square footage of your Digital Department (or will use)	D	900		
Cost per square foot for the Digital Department	E	$1,216.22	D x C	
Monthly Labor Cost assigned to the Digital Department (include all benefits)	F	$3,600.00		
Monthly Equipment Costs (lease/loan payments, maintenance contracts, etc.) My example is based on a 60" solvent printer, a 60" laminator, a panel saw, a light table and misc. finishing tools.	G	$2,130.00		
Total cost per month for your Digital Department	H	$6,946.22	E + F + G	
Total Cost Per Day (based on a 21 day month)	I	$330.77	H ÷ 21	

Table 1: This simplified chart shows fixed costs and a formula to determine the daily and monthly costs of your digital printing department. Plug in your own numbers. (Does not include sales commissions).

COST OF MATERIALS				
MATERIALS	**COST/SQ. FT.**	**COST/LINEAR FT.**	**YOUR COST/SQ. FT.**	**YOUR COST/LINEAR FT.**
Ink (I suggest calculating costs based on 750 sq. ft. per litre usage. You can use math to convert usage to fit containers you use.)	$0.60	$1.50		
Printing Substrate (Based on vinyl)	$0.25	$1.05		
Top Laminate (Based on vinyl laminate)	$0.35	$1.47		
Adhesive (Based on acrylic)	$0.32	$1.34		
Total cost of materials (Minus mounting boards)		$5.36		

Table 2: Cost per linear foot for a job, minus the cost of mounting boards. A width of 51" is assumed for the media, and ink costs were calculated based on a 30" wide print. Plug in your own numbers.

and my dead days, I average about four hours of actual printing. My average total print output (in this worst-case model), is 100 square feet per day. This would be the least profitable job I could get.

Knowing this worst-case scenario for jobs comes in handy. If I can make a profit selling the worst-case jobs, I'll be sure to make *more* money on all other jobs — and, more importantly, never lose money. I'll return to this later. Meanwhile, there's more to take into account.

MATERIAL ISSUES
Clearly, there are many necessary materials: printing substrates, inks, laminates, adhesives, boards, etc. Shops should generally all follow the same rules for finishing the prints (vinyl laminates, quality acrylic adhesives, etc.).

The chart on this page is what I have experienced for costs on materials (not including mounting boards) – remember, you must always cost the materials/job by the *linear foot* even though you are selling it by the *square foot*.

Can you see how I arrived at $5.36 per linear foot for my cost of materials (see **Table 2**)? When it comes to mounting boards, the average high cost for a board would be about $35 per 4' x 8' sheet (PVC), and the average low cost would be about $8 (foam board). Therefore, my board stock cost is between $1 and $4.25 per linear foot. A PVC sheet print will cost about $9.60 per linear foot, and a foam board about $6.50. As you can see, the real cost difference between the good stuff and the not-so-good stuff is close, and the labor/time involved is the same, so why are so many people still selling low-end products?

NUMBER CRUNCHING
Now let's do some numbers. The rule of thumb in manufacturing is to sell goods for *no less* than 400 percent markup (this is a burdened cost). So, following my model, if I only print four hours a day and my sales people sell mostly 30" x 30" prints mounted to foam board (remember our worst case scenario?) then my total *profit* per day should be $532.

Here's how I got there: Assuming the printer is doing two inches per minute, and

PVC sheet, would earn $970 profit for the day.

The foam board scenario shows a monthly profit of $11,000 (based on a 21 day month). But if the job was sold every day using PVC sheet instead of foam board, projected profits would be more than $20,000. This is good, but to make this money would require selling an average of four hours worth of printing every day.

MARKET CONDITIONS AND DISCOUNTING

Another important factor to consider when creating a pricing model is the condition of the market. Are there a number of major competitors in your area all vying for a limited number of clients? Or, are there tons of clients and one shop with the lion's share of the market that can charge whatever it wants?

This is a huge factor in making a pricing decision. I share my market with two

printing four hours a day (4 hours = 240 minutes x two inches per minute = 480 linear inches, divided by 12" = 40 linear feet), if my print is 30" long (2.5'), then each day I can produce 16 prints based on this example. I'll yield about 16 of the 30" x 30" prints from 40 linear feet. Remember, cost by the linear foot, sell by the square foot.

Okay, a 30" x 30" print = 6.25 square feet; therefore, 16 of those 30" x 30" prints = 100 square feet. So, if I am able to sell this job at $12 per square foot, this would be a $1,200 job.

I determined earlier that each linear foot costs $5.36, excluding cost of the board (see **Table 2**). Knowing that foam board costs $1 per linear foot — and given a small waste factor –- I'm going to round up the cost of board and print to $6.50 per linear foot. Now I add a 30% overall waste factor (mostly for human error), then multiply that by 40 linear feet. So my *true burdened cost* of materials for this job comes to $338 (see **Table 3**). Add that to the fixed

cost per day ($330) to determine the *total cost for the day* ($668). Subtract that cost ($668) from the $1,200 I charged for the job and that leaves me with $532 profit. However, this exact same job done using

PROFIT ANALYSIS	PVC SHEET	FOAM BOARD
True cost of materials (burdened cost). 40 linear feet (for 16 30" x 30" prints) multiplied by the cost of the material (assuming $4 per linear foot for PVC sheet, and $1 per linear foot for foam board) plus 30% to cover waste.	$499.20	$338.00
Daily fixed cost for the business.	$330.00	$330.00
Total of the two lines above	$829.20	$668.00
Sell price of the finished goods (PVC sheet at $18, and foam board at $12 per square foot).	$1,800.00	$1,200.00
Daily profit for an order of this size.	$970.80	$532.00
Monthly profit (if you can sell this order every day and not have to drop your price).	$20,386.80	$11,172.00

Table 3: Profit analysis for 100 square feet of graphics (based on 16 30" x 30" prints) comparing PVC sheet and foam board. It takes the same amount of time/labor to print, mount and finish a PVC sheet graphic as it does to print and finish a foam board print.

major competitors, but we rarely bump into each other. As a result, I keep my prices fair, but I don't have to give the house away to get the business. In all cases, it's good to get as much as possible for quality work, but be consistent. The last thing a business wants is to get caught overcharging – the client will never forget.

When it comes to discounting, my rules are very simple. I have a discount structure for all clients (25 percent off for resellers, COD clients pay retail). My discounts are based on the client's status in the market — reseller, non-profit organization, large volume buyer, small orders — and I also have additional volume discounts for specific products.

So, if I have a large-volume buyer client that orders 700 square feet of Lambda prints, I give them the discount for the volume purchase, plus a discount for their business status with us. The key to my success is setting up a proper retail price on my graphics and setting the right discount levels for volume.

REALITY CHECK

Okay, I know that some companies here in my own backyard sell PVC sheet prints for more than $35 a square foot, while others in my area sell them for only $8 a square foot. How can this happen in the same area?

Well, some companies sell *services, reputation* and *solutions*, while others just sell *price*. A lot of companies figure that if the ink costs 20 cents a square foot and the paper costs 10 cents, they can sell PVC prints all day for $8 a square foot and then claim to make a pile of money. The problem is, they are *wrong*. They're not making a pile of money unless they account for all their *business expenses* — like new equipment, mistakes, sales commissions and general surprises.

Actually, the simplified example for overhead costs that I gave earlier doesn't take into account the *commissions* paid to sales people. As the saying goes, "if you pay peanuts, you get monkeys." Paying good commissions will get good, professional sales people who sell *service*. Good sales people will bring in better paying jobs. In any case, a good pricing scheme needs to account for *all* these things.

PUTTING IT ALL TOGETHER

I believe the best way to structure pricing is to start with business overhead expenses as a baseline for profitability. Next, I look at the cost of goods and figure out a 4x base price (400 percent markup).

Then I set this 4x price as the *lowest* I will allow my sales people to go before I have to get involved. This way I can leave the sales people alone and let them price the jobs as they see fit. If they sell 30" x 30" prints to our resellers, I know this is a low-margin job, but because I did my pricing homework I know I'm still going to make money. If they sell 48" x 48" prints to a corporate client, I know we will be making more than 2000 percent markup (*ka-ching!*).

To help with all this, we use a sales tracking software system called ISystems Tracker. It provides us with all the tools we need to protect the company from loss leader jobs, and allows me to track the quotes and orders in the system.

I hope this article provides some tools *you* can use to properly assess your business pricing model and allow you to make healthy profits from your digital printing business.

Good luck, and be smart with your money. **DG**