

A close-up, macro photograph of beer foam. The top portion of the image shows a dense layer of small, glistening bubbles, with some larger, more irregular bubbles interspersed. The foam has a light beige or tan color. Below the foam, the surface of the beer is smoother and more uniform in color, appearing as a light, creamy beige. The overall lighting is soft and natural, highlighting the texture and movement of the bubbles.

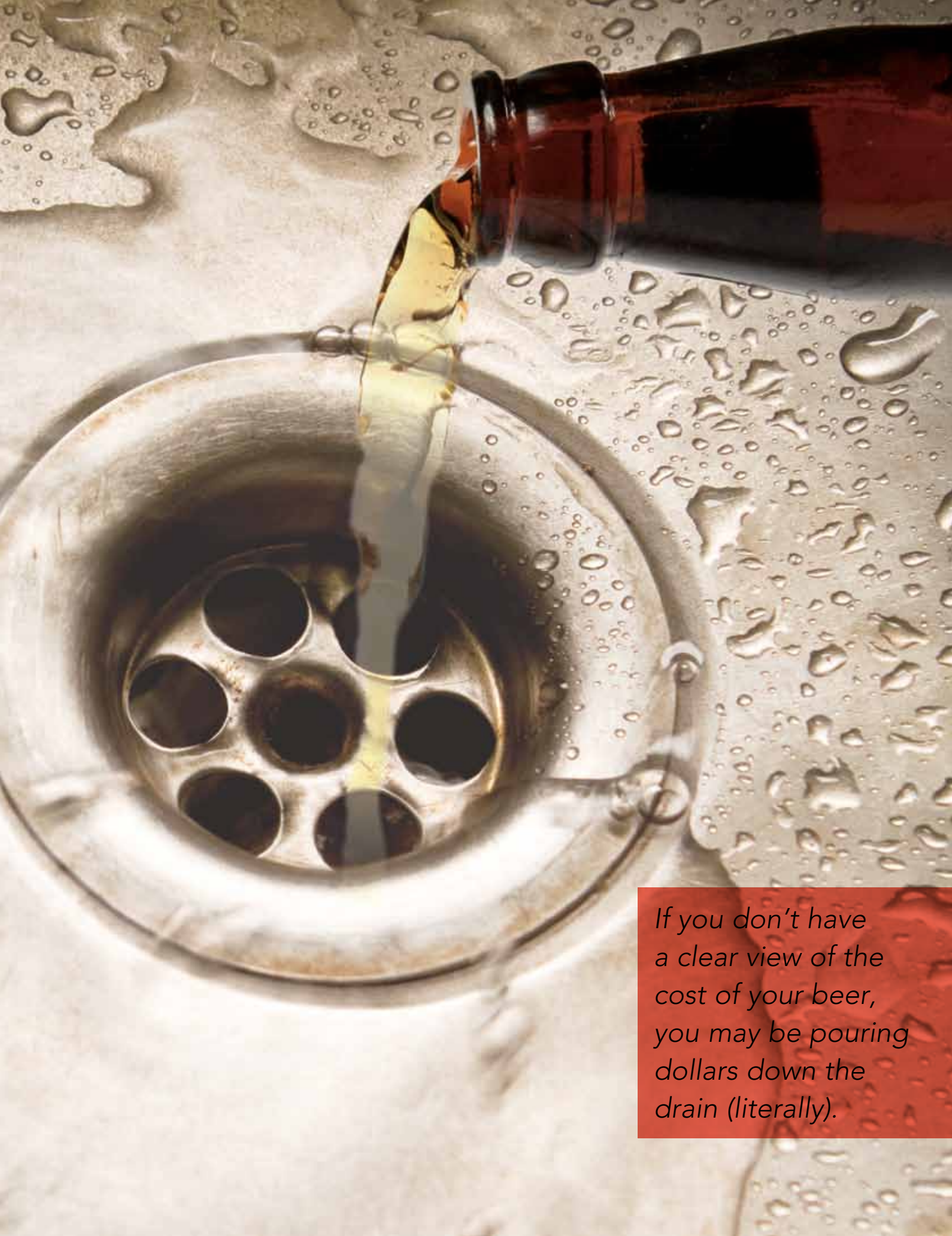
WHAT DOES YOUR BEER REALLY COST?

Establishing an Effective Beer Costing Program in the Brewpub

Your brewpub has been open a few years, you're making award-winning beers, you're a centerpiece of the community, and you're even making a profit. Employees are happy, the bank is happy, investors are happy, and you've managed to get your work week down to a manageable 70 hours. Labor expenses are steady and manageable, food cost is at the industry average, and beer cost is "around" 10 percent. That's good, right? Right?

If you don't have a clear view of the cost of your beer, you may be pouring dollars down the drain (literally). A well-established cost analysis will not only provide valuable data on the real cost of selling your suds, but may also identify areas of opportunity such as purchasing, labor and compensation analysis, and reducing waste. Many different methods exist for calculating beer cost, and in this article I'll describe the ones I find valuable, in addition to a few I don't (and why).

BY SCOTT METZGER



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GROSS SALES AND REVENUE PER BARREL

Top line revenue is a number we're all quite aware of, and we can usually gauge a successful (profitable) month from a bad one based on this number alone. This will vary by establishment, but our brewpub's prices are inclusive of state and local sales tax; so a \$5 pint is actually a \$4.62 pint with \$0.38 of taxes tacked on. I bring this up because I prefer to look at beer costs against the gross revenue collected before deducting sales taxes—usually this will be a different number than what you find on your income statement, which has those sales taxes netted out. Pre-tax analysis allows for a comparison of taxes as a percentage of the total price paid by your customers versus all of the other cost factors. No matter if you use revenue before or after sales taxes are deducted, it's important to be consistent in its use throughout the entire analysis. If you are a data-hound like me, you'll probably calculate it both ways—just make sure you aren't comparing pre-tax to post-tax figures.

Revenue per barrel is another revenue-side metric that can provide quick insight into trends in the brewpub and potential losses/waste at the bar. It would be a rather difficult and time-consuming task to try to exactly match your product mix report to your monthly count of barrels sold, but if you are selling at an average price of \$3.50/pint, then you should be somewhere around \$800/barrel (assuming 8-10 percent for loss/waste). If you sold 100 barrels but your beer revenue for the month came in at \$50,000, then a) you're not really selling at an average price of \$3.50/pint; b) you didn't really sell 100 barrels; or, worst-case scenario c) someone is stealing your beer. At our brewery, we normally fluctuate between \$700 and \$800/barrel, but that number will typically push closer to \$900/barrel in the winter when we have bigger, higher-priced beers available. Revenue per barrel is a good number to track over a period of time so you can start understanding seasonal trends and get a grasp of the range into which you should normally fall. When you get a period that falls outside of the norm, it's a signal that it's time for a closer look at what's going on.

RAW INGREDIENT COSTS

The first step in getting a handle on beer costs is an accurate accounting of the raw ingredients that go into the production of your brewpub's suds. I like to come up with a cost for each recipe we brew in addition to the aggregate cost for brewing operations each month.

Recipe costing is simple and straightforward—multiply the quantity of each ingredi-

ent used times the price of each ingredient used and sum up the totals. Costing out each recipe like this provides the opportunity to look at ingredient costs on a per-brand basis. If your POS System provides a Product Mix report, you'll be able to compare the revenue taken in per brand versus the cost to produce it. For example, you sold 5 barrels of Pale Ale and brought in \$4,000 in revenue. Your recipe costing comes out to \$50/barrel, thus your raw ingredient cost for that brand is 6.25 percent (\$50/barrel in cost divided by \$800/barrel in revenue).

While the above calculation is handy, it does have a few limitations. For example, a small brewery or brewpub measuring out ingredients using a rudimentary scale (or even just "eyeballing it"), a few extra ounces of hops, or a couple of pounds of grains for each brew can add up over the course of a month. Another major limitation of the per-brand analysis is that your POS may not be set up to capture every sale on a per-brand basis. At our brewpub, for example, growler fills are aggregated together and not segregated by brand. This can throw your per-brand analysis out of whack from the revenue side (denominator of the equation) if your growler fills (or any other sale that isn't segregated by brand) don't follow the same product mix as your draught sales.

The most accurate method of calculating your Raw Ingredient Costs is on the aggregate level, considering the cost of all ingredients versus the total revenue taken in from beer sales, as such:

$$[FB_B + FIP_B + IU - FB_E - FIP_E] =$$

Aggregate Ingredient Costs

$$\text{Beer Cost \%} = \frac{\text{Aggregate Ingredient Costs}}{\text{Revenue from House Beer Sales}}$$

Where:

FB_B = Value of Finished Beer Inventory, Beginning of Period

FIP_B = Value of Beer Inventory, Fermentation in Process, Beginning of Period

IU = Value of Beginning Raw Ingredient Inventory + Purchased Raw Ingredients - Value of Ending Raw Ingredient Inventory

FB_E = Value of Finished Beer Inventory, End of Period

FIP_E = Value of Beer Inventory, Fermentation in Process, End of Period

Note: While we usually use yeast for many generations, for simplicity I typically assign the full cost of new yeast to the month it was purchased.

To calculate the value of your beer inventory, apply the per-recipe cost method above. The aggregate method will pick up the cost of any ingredients that may be misplaced, lost due to inaccurate measurements, or worse, disappearing out the back door. If

you're staying up-to-date on your per-recipe costs, the cost associated with any specialty ingredients will be captured by the respective values of your beer inventory.

Ideally, your aggregate raw ingredient costs should be close to your per-brand costs. If you've calculated that all your brands should be costing between 4-7 percent, but your aggregate cost is 15 percent, you've got problems (where did all those ingredients go? Where are all the sales?).

Industry-wide benchmarking of raw ingredient costs can be difficult because even a \$0.06/lb price break on grain or high shipping costs due to your geographic location can make a big difference. When you consider a brewpub's propensity for using wacky (and costly) ingredients, industry benchmarks become even more of an apples-to-pomegranates comparison. Then consider the fact that a pint at a brewpub in New York City brings in significantly different revenue than a pint in Papillion, Neb.—further skewing those industry averages. The best approach to benchmarking is to compare your aggregate raw ingredient costs back to a weighted-average of your recipe costs. If your IPA costs around \$60/bbl to make and is 75 percent of your volume, and your Porter is the other 25 percent of sales and costs \$40/bbl to make, then your aggregate beer costs should be relatively close to \$55/bbl.

TOTAL BEER COSTS (MY FAVORITE VERSION)

As any hardworking brewer would tell you, ingredients alone do not a good beer make. There are a number of other cost factors to consider in order to get an accurate measure of what your beer is costing you. My preferred computation of Total Beer Costs looks like this:

$$\text{Total Beer Cost} = \text{Aggregate Ingredient Costs} + \text{Labor Cost} + \text{Utilities} + \text{Excise Taxes}$$

$$\text{Total Beer Cost \%} = \frac{\text{Total Beer Cost}}{\text{Revenue from House Beer Sales}}$$

On Labor Costs, if your brewer wears many hats (as often they do), you will want to segregate that time out from what you allocate to beer costs. If he or she is 75-percent brewer, 25-percent front-of-house manager, then only count 75 percent of labor expense to the brewery.

Allocating utility costs can be tricky because brewpubs also have kitchens, restaurants, and bars drawing a lot of power in addition to the brewery. A one-time analysis of the distribution of your power uses may be helpful, but on an ongoing basis it is appropriate to use a static percentage in assigning utility costs to your beer. Any month-to-



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month variances are going to cost more to figure out than the value they'll provide in your analysis.

With any item in my analysis, I always ask "would we be paying this if we were a multi-tap without a brewery?" Excise taxes are a perfect example. We only pay them because we make beer, and they're an important cost factor to include.

DEPRECIATION AND SALES TAXES

Two important costs I leave out of my analysis are depreciation and sales taxes. In the case of the latter, sales taxes (if applicable in your state) are something you're going to have to pay regardless of if you're selling

your beer or someone else's, and thus are not germane to the cost of your beer.

Depreciation, in my opinion, has limited usefulness as far as beer costing goes. Proponents of its use argue that it allows you to benchmark against industry averages for serving guest beer. While this may be true, it is incapable of giving your brewery credit for the incremental value provided by the simple fact that it's a brewery. Furthermore, after you've fully depreciated your brewing assets, it's not like your beer actually became less costly to produce. If you have an investor asking for an analysis that includes depreciation to determine "if it is worth it to be a brewpub" by comparing deprecia-

tion-included costs to that of selling kegs of mass-produced lager (for example), then you may have some further explaining of the nuances of a brewpub to do.

PACKAGED AND OUTSIDE ACCOUNT SALES

If you are doing any kind of packaging or sales to outside accounts, you'll want to segregate this volume out and cost it separately. Your costs as a percentage of sales are going to be vastly different from these revenue streams, and by co-mingling some of them all you are really doing is making your analysis worthless for evaluating any of them. At our brewpub, we do a very limited amount of packaging for sales on-premise, but are very thorough in separating out costs. We assign the per-brand cost of volume sold to our bottling operation, add all packaging costs (including labor associated to packaging), and apply it against revenues from bottle sales. We knew our operation of hand-bottling and releasing a couple hundred bottles at a time was cost-inefficient, but we didn't realize how much so until I performed a thorough analysis. Our bottle sales have increased to the point where the potential cost savings can justify the purchase of a small bottling line.

PUTTING INFORMATION TO WORK

Having a slew of new information at your fingertips doesn't mean anything if you aren't using it right. At our brewpub, beer costs (both raw ingredient and total beer costs) are used in our bonus matrix and our targets need to be hit before bonuses are paid out. As your brewpub grows and you see your bottom line in the black consistently, it is easy for a small business to lose track of costs and fall into the trap of "we're making money, so everything must be good." The business that loses sight of costs won't be in the black for long. An effective beer costing program can also do wonders for your top-line revenue so far as it can provide pricing guidance.

Craft beer drinkers are price sensitive too—if your costs are extraordinarily low, then perhaps you could afford to lower your prices and generate additional revenue through increased volume. No matter how you use the information, the key is to be consistent, track costs over time, and actually do something with it!

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