WHITEPAPER

3 Step Guide to Effectively Analyzing Your Business Performance

Taking the guesswork out of the process



HARMONY PSA

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Introduction

Whatever stage your business is at, understanding which customers and products make money and which don't is vital to optimizing your efforts and improving your profitability. It's this type of insight that also provides you with the foundation from which to review prices from a position of knowledge, rather than just "gut feel".

In terms of process this typically breaks down into three stages:

1. **Establishing accurate period accounting** – Eliminating "noise" from the raw numbers by ensuring revenue and cost figures are accurate by period. While this sounds easy, it can actually prove complex in the real world.
2. **Breaking down the complexity of contribution** – This requires you to allocate overheads and charges in a consistent manner; the biggest contributor in this area will be your staffing costs.
3. **Getting to the bottom of profitability** – Consistently and accurately indexing all revenue, cost, and overheads by customer, contract, and project.

We have written this white paper specifically to guide you through this process and help you to get the clarity you need to really understand and grow your business.

Section 1: Establishing accurate period accounting

The first step in the process is about working out how much money you're actually making. While this may sound trivial, the reality is that things are getting more and more complex in this respect. For example, repayment terms and availability of extended funding mean that things can stretch beyond a month, even to perpetuity. From an accounting perspective, what this means is that you need to care about deferred revenue, you also need to care about cost recognition in proportion to revenue recognition.

If you want to truly analyze your business, you need to ensure your period accounting is correct. That doesn't just mean correct in your accounting system; it also needs to be correct in your PSA tool. The reason for this is that your PSA tool will offer additional indexation capabilities that your accounting system doesn't.

This means that your PSA tool will act as a key differentiator from a period accounting perspective. Using the example of Harmony PSA, we not only enforce period accounting, but also provide up to a dozen indexes on each journal, allowing true multi-dimensional analysis of your business.

Most businesses will have their accounting systems split between two platforms; an invoice engine and an accounting system. Neither of these will ever provide you with the capability to analyze your business in the way that a PSA tool will. For example, your billing engine doesn't care about period accounting it only cares about invoices. Meanwhile, your accounting system will index costs by supplier, but not against sales or split by contracts and projects.

To get your period accounting right, you need the ability to ensure you are correctly deferring revenue and matching revenues to costs automatically. If you're running a big project on a fixed price that includes purchases and claim 30% progress, you need to make sure you have also claimed 30% of the costs. Failing to do this will cause a spike in your profit and loss (P&L) accounts, and all your analysis of the performance of a project will go out the window. To do this more accurately and efficiently you need a solid cost indexation architecture, which is more likely provided by a PSA tool.

The second step in your business analysis is the indexation of all your financial transactions. Your accounting package will enable you to index costs against suppliers, but it will not allow you to cross-index against the customer or project on which you have incurred those costs. This means you can't achieve customer margins unless you have a system that effectively joins the dots of billing and purchasing. You not only need to be able to index costs against projects and suppliers, but you also need to understand all the underpinning complexity of the contribution each employee is making to each project. On top of this, you need to do it quickly and continue to revisit it as the project rolls on.

In the following sections we lay out a step-by-step process that will help you do this.

Using your PSA as the first step to taking control of your period accounting

Your PSA tool can help you capture and control business processes. Alongside that core capability, it can also trigger accounting events that are critical to getting a full picture of your company profitability – and these also need to end up somehow in your accounting system. Depending on how complex your business is and how tightly you want PSA actions to drive accounting processes, there are a range of ways – laid out below – that you can make these systems talk to each other to help you analyze your business.

1. **Not at all:** the first is the simplest integration, pure manual re-keying of everything. Most people who buy a PSA tool are looking to remove manual re-entry of data as a primary goal, so even including this may seem strange. However, we find that many customers are quite content to implement a PSA in order to centralize and trigger invoice activity, but worry about changing accounting practices any more than that. This is, of course, their choice, and is possibly a sensible strategy for day one operations, but not something to do if you want to get an in-depth view of your business.

2. **Invoice line trigger:** this is where your PSA tool sends invoice lines to your accounting system, which then raises the invoice and performs accounts payable (AP)/accounts receivable (AR) functions. This is a very light touch integration that saves re-keying, but leaves the customer accounting view remote from the PSA users – for some this is actually a desired outcome, for others a total waste. One concern with this approach is the need to replicate product definitions across systems and this can be problematic.

3. **Invoice post**: in this model, the PSA tool issues the invoice, but replicates it in the accounting system. This provides two options for AR processing: do it in the PSA tool and post the result to the accounting package; or vice versa. You need to replicate your customers, but can eliminate the product replication if the accounting system product modelling is at a higher level.

4. **Journal post:** this integration model is unique (as far as we know today) to Harmony. At a high level, this means you have no data replication needs at all between your PSA and your accounting system, as long as you have reflected an extract of your chart of accounts in your PSA. All you are doing is posting debits and credits – a very simple and powerful interface model that works with 99% of all accounting packages

Do you need to go further?

For many monthly cycle MSPs, the balance sheet is only used for AP/AR and deferred revenue is not seen as important. However, as discussed at the beginning of this white paper, the balance sheet has a big part to play in monthly performance metrics and business analysis. And to get that right (plus automate as much as possible) you need to be able to use the product features to drive revenue and cost recognition.

Once a product billing behaviour reaches outside the month the invoice is released, cost and revenue recognition must be enforced to ensure the period is correctly accounted for. While this can be achieved manually for large amounts, achieving 100% coverage systemically, through system-driven structured processes is something only a PSA system can achieve. Try to do it manually and you will waste time only to achieve a poor, often inaccurate, result.

Get these core numbers wrong and everything thereafter is built on sand. Analyzing bad numbers does not improve them.

Section 2: Breaking down the complexity of contribution

For technology and professional services businesses staffing is their biggest fixed budget cost – up to 70% of overheads. It's also one of the hardest costs to allocate consistently. The connection between a company's revenue streams and employment spend are often complex to analyze and even harder to optimize.

It should be easy, if you implement a timesheet system, you will have total clarity over what people are doing, how much they are earning and where the money is going, right?

Unfortunately, timesheet systems alone have a number of drawbacks when it comes to working out the contribution each employee is making towards the overall profitability of the company:

- Timesheet project and task codes do not easily map to clear revenue streams. Of course, for simple cases they can map directly, but in the general case for technology companies, there are many points of indirection that confuse the picture.
- Timesheet booking granularity is very hard to manage evenly across the entire organization. You will find examples of people who book in 10-minute slots and others who book to the same code all week. And everything in between.
- Fixed price work is tough to analyze. Of course, at the project level, once it's complete, you can derive some idea of the overall costs against revenue, but that will not be at the employee level, only the project level.
- If you book in hours and charge in days (a very common arrangement) how do you, systemically, decide what costs and revenue numbers are attached to individual time bookings where overtime is worked?

And this all assumes that you have provided the timesheet system with all your rate information including details of your support revenue. Most systems do not get implemented in this manner.

So what can you do?

8 questions to help you understand profitability

If you really want to know what's going on, you need to be able to answer "Yes" to the following eight questions (you can add ticks in the boxes as you go):

- [ ] Do you model each support contract as a project (or task) and then ensure that the budget on that project is adjusted with each change to the services definition provided for under the contract?
- [ ] Do you adjust the earning rate on fixed price projects based upon the earned value of the work on a continuous basis?
- [ ] Do you enforce ticket-level bookings, managing the granularity down to measurable work elements?
- [ ] Do you apply consistent employee cost rates that fully account for non-time based overhead cost recovery (rent and rates etc)?
- [ ] Do you only use non-client specific booking codes on tasks where the costs are recovered by client-specific activity?
- [ ] Do you include consistent product code mapping in your project and task definitions?
- [ ] Do you apply consistent algorithms to day-rate based work to ensure that the treatment of revenue and costs are accurate and not over or understated?
- [ ] Do you do all this in a single system that provides accurate analysis on demand?

If you are missing any ticks, your analysis will be inaccurate, partial and yet still require significant post-processing effort to achieve a picture that you can reliably use to make decisions.

This is the vast majority of your fixed costs we are talking about and with this data gap, you actually have little clue about the relationship between spend and earnings, except at the highest overall level. How can you manage let alone optimize performance without this knowledge?

Getting the data you need

The solution to this problem lies in two simple concepts:

- **Use consistent time measures**
  Every single time booking has to acquire a cost and an earning value, using consistent time measures. However, the true trick is that the earning value has to allow for the overall performance of the project and be able to automatically re-baseline historical values when things go well or wrong.

- **Index against all relevant attributes**
  These values must be indexed against the employee, the project, the customer, the product area, and all relevant attributes of this list that you wish to use to analyze your business.

  Plus, if you operate in multiple currencies, you also need to handle conversions consistently, saving values in both transaction and company base currency using rates applicable at the time.

  This can only be achieved if you know everything about the commercial model of the contract, and take into account any changes that affect the value earned from the work. Implementing this approach will deliver the holy grail of professional services based businesses, a true contribution analysis by product area, customer and employee, at all times. Do this and for the first time you will really know who is earning the money and why. Now you can optimize your business performance from a position of knowledge, not hearsay or gut feeling. You might even be in a position to review your pricing with customers who don't pay enough to cover the costs of the service they are getting.

Section 3: Getting to the bottom of employee profitability

Now you've got the relevant insights you need, how do you actually go about calculating the contributions to your bottom line? Below we have set out the best ways to do this for your staffing costs... but be warned it's not for the faint hearted.

Warning – equations ahead, turn away now if you find them upsetting...

At first glance the calculation below looks really simple. Each employee has a known salary and plans to work a set number of days or hours per year. Gross up the salary to account for Social Charges, such as National Insurance and other allowances, and you get:

$$\textit{Marginal Daily Cost} = \frac{\textit{Salary x (1+NI\%) + (Other allowances, pension etc)}}{\textit{(52 x number of working days per week) - (Holiday \& sickness allowance)}}$$

That is a reasonable approximation of an individual's direct, incremental, or marginal cost per day. However, to calculate the fully loaded cost that should be used in profitability calculations, you need to take more items into account. Note the divisor in this equation is the Effective Working Days per full-time equivalent (FTE), generally between 220 and 230 days. It is referred to as such in the equations below.

Method 1 – Blended cost rate

In order to decide how to incorporate (sometimes called recover) your overhead costs into/via your man-day cost, you first need to decide which of your revenue streams you are going to assume man-days act as the overhead cost distribution key for – for more detail on this, click here. For instance, you may decide that software license sales are not man-day dependent but the rest of the business (support and services streams) is.

So, to calculate the percentage of overheads that must be recovered via man-days:

$$\textit{Manday Recovery \%} = \frac{\textit{Manday Driven Revenue Budget}}{\textit{Total Revenue Budget}}$$

The second key decision is which of your staff contribute to the revenue delivery channel. Normally, this would exclude management, sales and marketing, finance, and administration staff, but include all others. We will call these people Delivery Stream Staff. The FTE value of this group takes into account part-time workers and any phased headcount profile your budget assumes during the year.

The final decision is whether you expect your contractors (who are, in effect, under cost of goods employment) to contribute to overhead recovery. This will depend on what percentage of your staff they represent. For this example, we will assume that they don't make a budgeted contribution to overhead recovery as they are a fully variable income stream.

With these assumptions, the fully loaded blended man-day cost is calculated as:

$$\textit{Blended Manday Cost} = \frac{\textit{Manday Recovery \% Total Overhead Budget}}{\textit{Total Delivery Stream FTE x Effective Working Days per FTE}}$$

Note: the total overhead budget here includes all salaries, burden, and other non-sales related costs

Method 2 – Fixed overhead recovery (FOR)

The blended cost rate method gets you a good working number and will ensure profitability calculations are at least meaningful. However, it does not take into account individual salaries. If you have customers, projects, or products that do not conform to a normal mix of staff, the result can be misleading and so lead to bad decisions.

To improve the granularity, we need a new cost definition, which is the Annual Overhead Budget less the direct cost of the Delivery Stream Staff. We'll call this cost group the Fixed Overhead Budget. So, the individual cost rate for the FOR method is calculated as:

$$\textit{FOR Manday Cost} = \textit{Marginal Daily Cost} = \frac{\textit{Manday Recovery \% Fixed Overhead Budget}}{\textit{Total Delivery Stream FTE x Effective Working Days}}$$

This will give you a personal cost rate, but that may be too much detail and/or too much maintenance. A common middle road is to group staff into cost bands in the same way you may group them into charge bands. Replacing the marginal daily cost with group averages in the equation above will get you very accurate profitability numbers and eliminate the possibility of someone reverse engineering salaries from cost reports.

Method 3 – Variable overhead recovery (VOR)

Fixed overhead recovery, in particular by bands, is accurate, practical, and meaningful, but some would argue that it flatters high-charging staff and under-values the contribution of the lower paid as they earn less but all carry the same overhead cost allocation. The answer to this is the VOR method.

VOR weights the share of overhead costs applied to each individual or band by their direct cost so more expensive staff (who presumably charge out at a higher rate) carry more overhead. This is calculated using the equation above but with a cost weighting applied to the overhead recovery function as:

$$\textit{Cost Weighting} = \frac{\textit{Individual or Group Marginal Daily Cost}}{\textit{Average Marginal Daily Cost}}$$

Note: if banding is applied, the average marginal daily cost should be calculated on totals not as a straight average of the band numbers or average of averages effect will take place. Clearly, using this same thinking, we can incorporate billable targets (reduces delivery days) etc, but we thought if we included that, no one would read it.

Getting the fully loaded labor cost rates right is key to instant profitability analysis. If you are accurate in this calculation, at year end, the revenue numbers, where labor is the distribution key, will show all your overhead costs fully recovered and you will know where you made the money and how much. This is vital to tuning your business and maximizing returns. However, for this to work, the analysis also requires a system that can automatically track the actual costs at each qualifying time booking level.

Conclusion

For many this process may seem a step too far. However, by getting this depth of insight into your business you will be able to grow and develop in a way that you previously wouldn't have been able to see. Greater insight into the contribution of projects and staff to your bottom line ultimately leads to a much clearer understanding of your organization's operations, and in a time when we're all looking to be as competitive as possible in the marketplace can only be good for business.

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How Harmony can help

Harmony is written with real-time analysis of work built in automatically, so the requirements of this paper are met in full by core functionality in the system. You will still have to analyse your staff costs to enter the right fully loaded cost figures (using whichever method suits your needs), but then the good news is that the rest of the functional requirements are met without your needing to do anything other than work. Harmony does the rest as a normal part of its handling of business actions.

Because Harmony's products automate the process of revenue recognition (actually without you knowing), its period accounting view is consistent and correct at all times. This underpins real-time profitability views no matter what billing cycle you operate. So, if you want to find out how much money you're making from a customer or project or contract, the answer is just a few click away, up to date and supporting trend views back from any period you choose. If you want to find out the revenue contribution by employee or attribute of employee, just run a simple report and pivot inside the system to find the result.

Multi-dimensional profitability has never been simpler or as accurate. Functionality only delivered by Harmony

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