Analyzing the performance of a Services business

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Introduction

Analyzing the performance of any business is complex. There are a large number of factors to consider and it can be difficult to see the wood for the trees. A services business can be even more complex! Work may be on several different kinds of project and there is a high dependency on the most unpredictable resource, people: employees, contractors and clients.

It is essential, therefore, to focus on the most important factors to understand the current performance of the business and to predict future performance.

This paper looks to help you answer these key questions:

- Why is revenue/profit higher or lower than expected?
- What is going to affect the performance of the business in 3 months time?

Symptoms

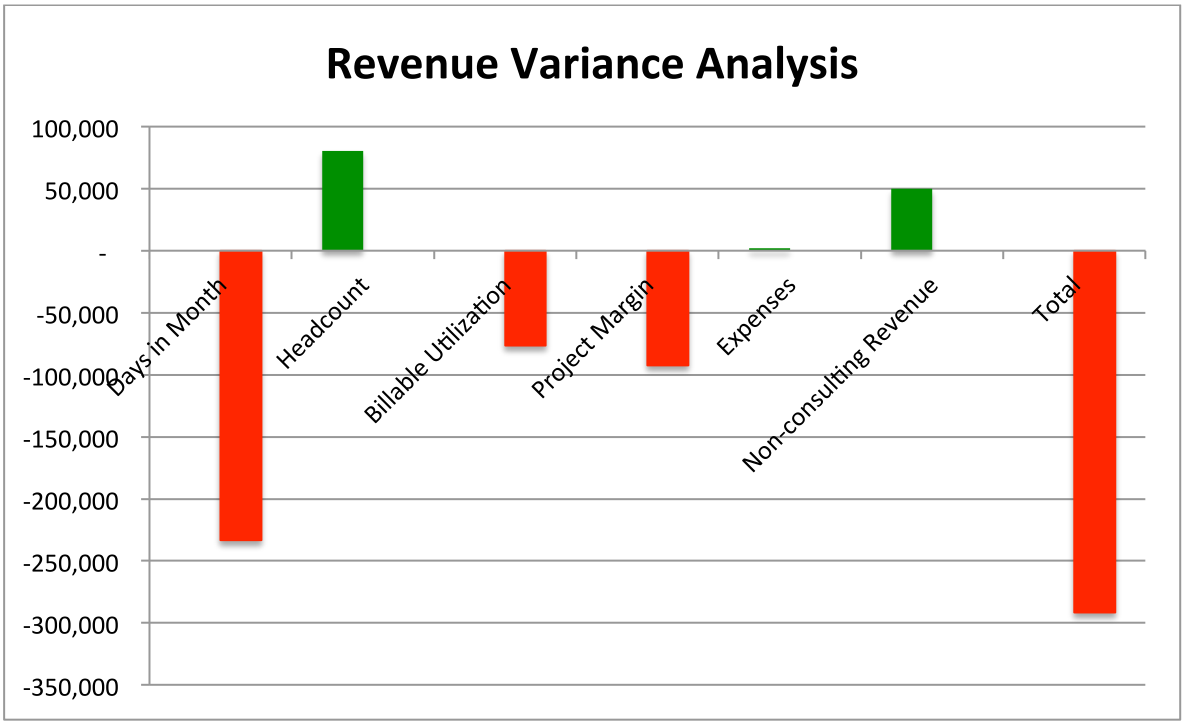
The key to analyzing performance is to look at variances in key measures for the business (symptoms) and at the underlying causes to determine a diagnosis; the key areas to focus on are Sales, Finance, People and Delivery. For example, a financial symptom may be that revenue is lower than the previous month. This may be caused by a number of factors, for example: the number of days in the month; billable headcount; billable utilization; project margin; expenses re-billed; or non-consulting revenue. It may then be required to drill down to a further level of detail for some of the factors. Utilization variance could be caused by, for example: vacation; sickness; training; company meetings; pre-sales; or overtime. And it may be necessary to look at some of the factors in combination to find the final root cause e.g. fixed price project overrun can often result in higher utilization but lower project margin.

Example Analysis

A diagrammatic way of looking at the variance can help in pinpointing areas for further investigation. Let's look at two example months:

	Days in Month	Headcount	Billable Utilization	Project Margin	Expenses	Non-consulting Revenue	Total
Month 1	23	100	70%	58%	10,000	-	2,693,333
Month 2	21	103	68%	56%	12,000	50,000	2,401,973

And now let's look at how each of the variances contributes to the total:



Days in Month

The biggest negative factor is the number of working days in the month – which can't be changed! This emphasizes the need for your budgeting to take account of this factor so that you're not surprised by its impact on revenue.

Project Margin

Project Margin is the average margin delivered across projects i.e. Total amount billed/(Days worked on billable projects * Cost rate per day). This is different to business unit gross margin because it does not take non-billable time into account. It is a reflection of project performance. An alternative measure is average rate but that does not account for different resource costs, particularly when using offshore resource.

You can drill down by person or project on margin. The most common reasons for a variance in project margin are project write-offs or overrun on a fixed price project, though sometimes delivering ahead of plan and releasing contingency will have a positive impact. Beware fixed price projects, which are running exactly to plan – something is going wrong and being hidden! Is the project manager calculating a real estimate to complete or just using Baseline - Actual? If expected project margins are being achieved make sure you are also looking at utilization and that all client time is being billed.

Billable Utilization

The third largest negative factor in this example is billable utilization. You can drill down to look at this in more detail by activity, by person or by client/project. Let's look at an analysis by activity:

	Billable	Training	Pre-sales	Sickness	Holiday	Admin	Total
Month 1	1,610	60	150	50	210	220	2,300
	70%	3%	7%	2%	9%	10%	
Month 2	1,471	50	200	48	190	204	2,163
	68%	2%	9%	2%	9%	9%	

There is little variance between activities in this example except for pre-sales. You should be able to explain this. However, you should also look at Admin that accounts for 10% of time booked in the month. This seems high and should be investigated further. In this example, a 1% increase in billable utilization is worth 25,000 a month on both your top and bottom line! You can also look at utilization by person, across analysis categories, or by client/project. The latter will be interesting if you track non-billable client work as well as billable. Looking at this analysis will allow you to pinpoint problem areas so that you can address them, and to modify your tracking if necessary.

Headcount

An analysis of headcount may help in understanding utilization. If you are looking at utilization of permanent staff only, then a larger than usual number of joiners or leavers may have a negative impact on utilization – billing in the first and last months of employment are usually lower. The ratio of permanent to contract staff may also impact utilization. If you use contract staff only for billable work and they are 100% utilized, the non-billable time for pre-sales and management is delivered by permanent staff and a larger number of contractors may result in lower permanent utilization. In this case you need to ensure that the additional margin delivered from a larger number of contractors makes up for the margin lost by permanent staff spending more time on non-billable activities.

Expenses

Expenses are a common area where revenue can leak. An analysis is necessary of both claimed and billed expenses to ensure everything that should be billed is being billed. It can also be useful, where expenses are included in a daily rate to subtract expenses claimed from the consulting revenue for analysis purposes so that a true project margin is reported rather than one inflated because it includes an allowance for expenses. Again expenses can be analyzed by person or project and also by expense category.

Further Analysis

In this example we have looked only at one symptom, lower revenue, and at only two months. Some further key KPIs are listed in the table below.

Sales	Finance	People	Delivery
Backlog (contracted business)	Revenue	Headcount	Project Margin
	Gross Profit and % Margin	Billable	Write-offs
Pipeline	Net Profit and % Margin	Utilization	

Future Business Performance

Analysis of current performance is straightforward compared to predicting future performance. The key elements necessary to successfully run a professional services business are: Sales; Cash; People; Delivery. And there are a number of indicators in each of these areas that determine if the business will be healthy in the future:

Is enough work being sold?

- Bids won, lost and slipped
- Backlog and pipeline
- Average margin of business won
- Sales and pre-sales effort

Is there enough cash available?

- Debtors and creditors
- WIP and Deferred income
- Revenue and costs
- Cashflow forecast

Is there capacity to deliver?

- Permanent and contract
- Joiners and leavers
- Open positions and interviews
- Unresourced billable roles

Are projects being delivered successfully?

- Project management headcount
- Project reporting completed, issues raised & forecast updated
- Fixed price slippage and contingency levels
- Non-billable client work and write-offs

Each of these will have an impact on the future health of the business but they must often also be looked at in combination or over an extended period. A commentary on each is given below, but first let's consider if there is something simpler to look at.

The Value of Forecasts

Forecast Utilization and Margin

Forecast utilization and margin are the best indicators for the future performance of your business. Looking at these numbers based on firm business will show your backlog. Importantly it will also show how much of that backlog relates to the coming months – it's no good having a high level of contracted business if you've got a gap before it's delivered. Similarly, when looking at probable business it will show how much of your pipeline is due to close for delivery in the coming months. It also shows which deals are most important to close to keep staff busy, and which deals you might prefer to start later to ensure you have sufficient capacity. Forecast margin will confirm if the business is at the right margin. Maintaining these forecasts accurately will quickly show the impact of any wins, losses or slippages.

A utilization forecast will also highlight any resourcing issues and where you need to focus on un-resourced roles, and if you have a mismatch between the work you have sold or are trying to close and the resources you have available.

Forecast Cash

In addition to forecast utilization and margin you should also ensure that your forecast includes invoicing and payment terms for your clients and forecast billing milestones for fixed price projects. This information will produce a forecast of when you expect cash into the business that can then be combined with a cost forecast.

Forecast Summary

A services business is different to a product business. The timing of revenues depends not only on sales but also on delivery; on having the right people to deliver. Maintaining an accurate forecast of firm and probable work means that you can ensure that you have enough work for the people in your business and that you have enough people to deliver the work you are selling. It ensures there is no mismatch. The forecast margin from this work shows whether you are selling at the right margins in relation to your costs. And the forecast cash inflows based on when you expect to invoice provide input to your cashflow forecast.

The value of these measures combined with the need to accurately and efficiently run a services business has led to the most successful firms adopting professional services automation (PSA) software that will provide them with the information they need.

Future Business Performance Measures

Sales

Bids won – the value of bids won each month should be equal to the average monthly revenue plus an additional amount to support business growth and an amount to grow backlog, so say: (annual revenue target/12)* 1.2. Bids can be like buses though – with none being won for a while then several coming together, so look at bids won over a 3-month period and how large the backlog is.

Bids lost – if no bids are being lost then sales is not being ambitious enough or pricing is too low, whereas if too many are being lost then too much effort is being wasted on unsuccessful pre-sales. A detailed analysis of why bids are won and lost is required, but also use a quantitative indicator e.g. target winning 50-75% of bids depending on sector.

Bids slipped – this can be a tricky one to spot unless you're looking for it. Most close dates slip but if there is continual slip possibly followed by a loss, it can indicate that the sales pipeline is more fantasy than fact. It also means that sales effort is being spent on the wrong opportunities, which should have been better qualified.

Backlog – a clear measure of the value of contracted work. A services business should target a minimum of 3 months revenue worth of backlog and an ideal case would be six months plus, or higher if annuity work forms part of the services mix. A downward trend in backlog is an indicator of problems ahead and a need to focus on closing business and, maybe, tactical deployment of resources.

Pipeline – the value of all open deals in the sales pipeline. Can be looked at as a raw number or a weighted number or, probably most usefully, segmented by sales stage/probability. It can also be useful to look at average deal size or number of deals over a threshold value e.g. over 100K or over 1M depending on the size of your business. Pipeline will obviously go down as business is won and moves into backlog or as deals are lost, so the movement in the value of the sales pipeline needs to be considered alongside won/lost and new deals. Target should be an un-weighted pipeline equal to 12 months revenue.

Average Margin of Business Won – ensure that you are selling profitable business. Ideally you should set a target and minimum project margin required for bids and ensure that you are bidding at a high enough level.

Sales and Pre-Sales effort – There is a tendency in services firms to stop selling if a big deal is won and to concentrate on delivery: The best resources have been deployed to win a deal and now they are working to make sure it is delivered successfully. This leads to a feast or famine effect on the backlog. To avoid this, the amount of effort spent on sales and pre-sales should be measured to ensure that you keep selling and don't run the risk of running out of work a few months down the line.

Finance

Debtors – if the value of debtors goes up is it because a client is unhappy with what you're delivering, having financial problems or just incompetent? Maybe surprisingly, the most common reason for carrying a high level of debtors is that you are invoicing incorrectly which also leads to a high level of credit notes! If you measure the value of debtors and particularly aged debts then you can investigate and resolve any issues before it gets too late. If you use invoice discounting for finance then debts will typically be excluded once they are over 90 or 120 days old, which could lead to a cash crisis.

Creditors – If your creditors go up, do you know why? Not paying suppliers, especially contractors can lead to problems. On the other hand if the value of creditors goes down, are you paying too soon? Although profit is important, cash is most important.

WIP – A high WIP means you are not invoicing customers for work done and are having to finance the cashflow. It may be because of fixed price work with milestone payments not reached, or slipped, or missed. Why? It may be that timesheets and expenses are not submitted and approved on time. It may be administration problems. It might be that you haven't got round to it. You need to keep on top of WIP otherwise there is a risk of running out of cash. If you sign a large fixed price contract where you expect high levels of WIP then make sure you plan for it as part of your cashflow to ensure you can afford the business.

Deferred Income – A very good measure to see increasing – most commonly where annuity work is undertaken with payment in advance. Though you should also be asking for a commencement milestone payment on all fixed price projects – the worst that can happen is that your client says no. Make sure any movements in deferred income can be explained.

Revenue and Costs – Basic measures, but any variance from plan will have a future effect. Cost changes generally have an impact sooner than Revenue changes e.g. additional recruitment will mean paying cash for salary and recruitment costs in the month someone joins whereas the cash for increased revenue, from that person billing, will only appear 1-2 months later. If there is a decrease in revenue in a month the cashflow impact may not be felt for 1-3 months but it indicates there could be problems.

Cashflow – All of the above factors need to be fed into the cashflow forecast so that measures to cut costs, collect more cash or increase lines of credit can be taken well before they are needed. However, the single biggest thing that can improve your cashflow is to invoice accurately as soon as you are able.

Capacity

Headcount – Do you have the right balance between permanent and contract staff and the right skills and experience for the work you are winning? If you have enough work but the wrong people to deliver it you need to take action.

Joiners and Leavers – Joiners and leavers are expensive. Leavers are often less productive in their final month whilst joiners are less productive in their initial months and also have an upfront recruitment cost. Ensure that your attrition rate is kept under control and that you can manage the number of joiners who must be well looked after on starting.

Open Positions and Interviews – Have you identified where you need to recruit based on the work you are winning? Do you have sufficient candidates or do you need to consider other sources? Are you progressing candidates quickly through the recruitment process – good candidates will be in demand!

Un-resourced Billable Roles – How much of your forecast revenue is being delivered by un-named resources? Is it real revenue or will you be unable to deliver it? Are resources coming free or being recruited? Do you need to recruit contractors? Just looking at the backlog of work or even at the forecast margin will give a false impression if you do not have real people to do the work.

Delivery

Project Management Headcount – If you do not have sufficient project managers then an inexperienced consultant may end up managing a project and mistakes are more likely. It can take only one project to go wrong to wipe out a quarter's profit.

Project Reporting – If project reporting is not being completed and issues addressed there may be hidden problems.

Fixed Price Slippage – Fixed price projects can often run to time and budget for a while then start to slip a little before finally needing a major review and re-estimate. If there is no clear reporting framework and a lack of experienced project managers this becomes more likely. So ensure that project reporting and updating is done on a timely basis and review carefully to ensure problems are addressed early.

Non-billable Client Work – Are you billing all of the time to a client that you should be? Revenue leakage can occur if, for example, a consultant can get utilization bonus without having to bill their time; a project manager can deliver a project to budget if they ask consultants to record their time as pre-sales; a salesperson can ask a consultant to do a favor for a client as a pre-sales activity. Ensure that you measure all client time for a clear view of client profitability.

About the Author

Steve Anderson (steve.anderson@capitalisepartners.com) is an experienced and successful company director and entrepreneur who has worked in start-up, growth and multinational companies in the technology sector. His experience includes starting, growing and exiting IT businesses twice and working in senior roles in US and Japanese multinationals. He now works as a Managing Partner at Capitalise, in a non-executive, advisory capacity for a number of technology businesses, and has a track record of investing in technology start-ups.

Capitalise brings together some of the UK's most experienced technology founders and VC professionals to provide investment and advisory services to entrepreneurs looking to grow and exit their software or services business. Having realised shareholder value from multiple exits, Capitalise is unique in the composition of its partner team and focus, its combined investment and advisory proposition and its extended industry network.