

Sales Forecasting:

A Critical Business Process

Sales forecasting used to be confined to the sales meeting. No longer. Now, with corporate performance under ever stricter scrutiny from the markets, directors and investors must be able to know, anytime and anywhere, how the business is doing. And it isn't just what's going to be sold this month: it's what has changed, and why; how consistent is the forecast; are the sales closed actually the sales that were forecast? Today, sales forecasting is the priority business process.

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Background

As a young Sales Manager joining Intel in 1982, I remember being overawed by the sheer professionalism of the company. 20 years ago, Intel seemed to know that they would become a multi-billion dollar corporation and that they would have to build scaleable business processes to support their growth. I learnt more about running a business in my first year at Intel than I had in the previous 15 years in the computer industry (working for two companies who were perhaps rather less prepared for the impact of change).

Intel did many things well, including delegation of responsibility to the lowest level, recognising the need for channels of distribution, Management by Objectives (MBOs), "Ranking and Rating" of employees, Corrective Action Programs for sub-standard performance, treating all employees equally - we all drove the same company car, and nobody had an office, including the CEO, Andy Grove. (This management style is described in detail in Andy's book "High Output Management")

Naturally, Intel wasn't perfect and I particularly disliked the commission scheme which paid less at >100% of target. However, the process Intel really mastered was Sales Forecasting and this became key to the company's success at

capacity planning of wafer fabrication facilities. It is no exaggeration to say that in every company I have worked at since Intel, I have introduced a derivative of their forecasting system. It is also true that many companies in high technology are managed by executives who have previously worked for Intel and, like me, have inherited Intel's business planning culture. In turn Intel, I am sure, would readily admit that some of their ideas were inherited from Texas Instruments and Fairchild.

Subsequently, I have seen a number of American high-tech companies who came close to disaster because they surprised the investment community with poor numbers at the last minute - the most notable being a large workstation manufacturer who, at one time, couldn't manufacture enough products to meet their quarterly revenue target because they hadn't foreseen the level of bookings they would achieve. I remember thinking at the time that they could do with some basic Intel ideology on the three B's - Bookings, Billings and Backlog. I should also say that, as my own Board of Directors and previous managers will verify, I am not always as accurate in my own forecasting as they would like me to be!

The solution to this forecasting challenge is available as the Procession Revenue Planning Edition (RPe).

The Stagger Chart

This form (Figure 1) looks very complex on first sight but after a while it is addictive! The stagger chart can be used to forecast sales, headcount, costs, profits - or any number set where you have an annual target, broken down by months and quarters, where close tracking of information is required.

	Apr 00	Apr 00	Jun 00	Q1	Jul 00	Aug 00	Sep 00	Q2	Oct 00	Nov 00	Dec 00	Q3	Jan 01	Feb 01	Mar 01	Q4
Apr 00	100	200	300	600	400	500	600	1,500								
May 00		220	290	610	440	490	670	1,600	600			600				
Jun 00			290	610	400	530	650	1,580	600	700		1,300				
Jul 00					420	500	640	1,560	590	670	800	2,060				
Aug 00						510	645	1,565	580	650	790	2,020	700			700
Sep 00							635	1,535	570	660	800	2,030	900	400		1,300
Oct 00									565	650	800	2,015	890	400	300	1,590
Nov 00										780	600	1,680	870	390	320	1,580
Dec 00											600	1,680	900	600	330	1,830
Jan 01													670	550	340	1,560
Feb 01														560	800	2,020
Mar 01															990	2,210
Bookings Actual	100	220	250	570	410	490	624	1,524	300	780	600	1,680	660	560	1,000	2,220
Bookings YTD	100	320	570		980	1,470	2,094		2,394	3,174	3,774		4,434	4,994	5,994	
Quota	450	450	600	1,500	450	450	600	1,500	450	450	600	1,500	450	450	600	1,500
Quota YTD	450	900	1,500		1,950	2,400	3,000		3,450	3,900	4,500		4,950	5,400	6,000	

Figure 1: The Stagger Chart

The stagger chart provides:

- Accuracy of forecast over a six-month period
- Measurement of monthly actual versus target
- Measurement of actual YTD versus target YTD
- Prediction of yearly outcome - available from month six

The reader will notice that each month he/she is required to enter the forecast values for the next months, and that this causes the staggered effect. In January it would be reasonable to expect our accuracy for January to be pretty good (we may have a different problem if the current month is difficult to estimate) whereas our knowledge of June's business may well be preliminary.

The important measurement is: "Does forecast accuracy improve as we get closer?" Clearly, this report can be as unpopular with account

managers (reps) as it is popular with sales management. The stagger chart isn't perfect but as a tool for instantly displaying the health of a business, I haven't come across anything better. The main drawback is that producing stagger charts with Microsoft Excel is extremely time-consuming, particularly in the second half of the year when two charts need to be maintained, and each month the charts need to have the new data entries added.

Any forecast system I use must support separate charts for Bookings and Revenues, roll-up hierarchical data (so that a team manager automatically gets a team stagger chart) and cater for year-ends by displaying up to 18 months of forecast data. In addition, the user must be able to click on a monthly total and be shown, via a hyperlink, the deals that make up the number being displayed.

The Background Data

Of course the Stagger Chart relies on a file of forecast information that has been judged to be worthy of inclusion, as well as the actual numbers for previous months. All sales managers have different ways of ranking deals by quality, all of which vary in complexity. I favour a very simple scheme based on three quality levels:

- **80%** - committed deals. Will close!
- **50%** - upside deals. Would expect to close many of these
- **30%** - pipeline deals. In progress

A simple matrix for determining these percentages is outlined in figure 2. This type of scheme is my personal preference but, as a software vendor, it is important not to prescribe a system to our customers. In my experience, every Sales Director has his/her own favourite data fields and any good forecasting software must cater for an unlimited number of these (providing performance considerations are taken into account). The users must be able to enter data through an Internet Browser and for every forecast item the owner must be able to amend or delete data.

	Budget signed-off	Budget likely to be approved	Budget uncertain
We are ahead of competition	A1 (80%)	B1 (50%)	C1 (30%)
We are equal to competition	A2 (50%)	B2 (50%)	C2 (30%)
We are behind competition	A3 (30%)	B3 (30%)	C3 (30%)

Figure 2: Forecast Probability Matrix

Other people in the organization must be able to view the data entered by their team but not amend any field other than the judged total. All stagger charts must be produced using the relevant judged numbers (see later).

Reports

It may seem obvious, but it is worth reminding ourselves that the main purpose of any forecasting system is to provide up-to-date information to business stakeholders in the format in which they need that information. As CEO I want to know the major deals this quarter - I am not so concerned as to the product mix or the detail by salesperson. Our sales managers, financial controllers and product managers almost certainly have different criteria. To my mind, the following list represents the minimum requirement for reporting:

- by salesperson
- by region
- by continent
- by probability
- by value
- by month
- by quarter
- by product

Judgement

This is a controversial topic, but I believe there is a practical methodology which satisfies the majority of users. The raw forecast data, as entered by the salesperson, should have both a Total and a Judged Total field. Each level in the hierarchy should also be provided with a Judged Total field for each forecast line but this judgement would be invisible to the level below. Therefore, as the Sales VP, I see the original Total together with the Regional Manager's Judged Total and my own Judged Total. I don't know, however, whether the CEO has also added his own judgement.

Notification

Notification is a key requirement of any sales forecasting system, as is the ability to monitor data and to notify certain users of change. All levels above the salesperson should be able to request notification (by email or to a portable device) of a change in Booking Date, Value or Probability Percentage. Additionally, any time a salesperson makes a change to these fields he/she should be required to provide a reason for the change. Now, having selected the key deals to watch, I want to receive instant notification of changes (up or down) to the quarterly forecast - in real time. Conversely I don't want to pester the sales team to update their forecast information - the forecast software should do that for me by notifying those salespeople who haven't actively updated their forecasts by the appropriate deadline.

Collaboration

In an ideal world, I want to be able to delve into any forecast entry (from a browser, anywhere in the world) and see the history of an opportunity i.e. who entered it, and when and why it was upgraded (maybe to a Commit status from a Pipeline status) or downgraded. I also want to be able to add my input (welcome or not) in the form of a note that is permanently added to the audit trail, and I want to see the comments that my sales managers have added, chronologically.

Synchronization

Many systems I have been forced to use require extensive synchronization with a corporate server. The poor salesperson is not only deprived of his favourite contact management but, on joining a new company, has to go through the nightmare of converting his contacts to comma delimited files and then feeding them into the corporate database. This client/server approach has been applied to many of the web-based solutions and consumes huge amounts of a salesperson's time. In a previous company we spent \$500,000+ implementing a system from a famous software vendor, all in the name of an integrated CRM solution that was supposed to provide end-to-end management of leads, contacts, partners, campaigns and forecasting. The system was universally despised, particularly by the international employees, as we were required to spend at least an hour a day synchronizing with Head Office. Procession Software Ltd's VP of International Sales had a similar experience in his previous company using a system from an equally well-known vendor.

For me, the bottom line on synchronization is that I don't want any data to be uploaded and the only valid download is an Excel file of the opportunities owned by the logged-on user.

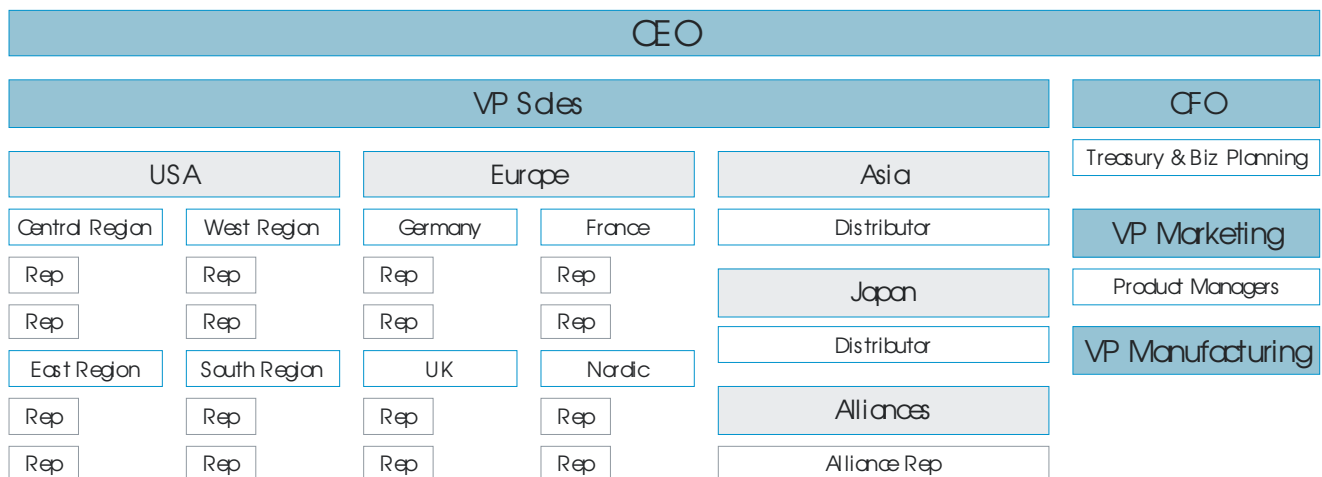


Figure 3: Typical Organization Chart

Availability of accurate forecast data to the business

Clearly, if the forecast information is kept up-to-date, our colleagues in manufacturing can schedule materials more accurately and finance can forecast receivables and cash flow more easily. However, the key reason for maintaining this information is to enable management to assess the health of the business, to highlight sub-standard performance and to predict impending booms and slumps (during my time at Intel we would even measure the customer's inventory and sales to ensure he wasn't over-ordering from us - ah, the good old days of book to bill ratios in excess of 2).

I suggest that the structure shown in figure 3 is quite common in global organizations, and larger businesses may well have one or two more layers in their sales teams. Sales may also be organized into vocational, product, major account or/and industry teams. Rolling up this forecast information is a complex process.

The ideal forecasting system will have an administration utility, which allows the definition of roles, territories, quotas and who-reports-to-whom. Individuals must be able to see the information they are directly interested in. The system must be easy enough for my Board of Directors to use. Sales Directors out there - imagine not having to provide detailed status orally, on a daily basis, to the numerous stakeholders in your business!

Bookings, Billings (Revenue) & Backlog

In some industries these terms are synonymous - not so in high technology. For example, a software vendor may close an order for £100,000 Licence, £30,000 Professional Services, £2,000 Training and £18,000 Maintenance. A likely scenario is that the Licence would ship in the same month as the booking occurred, the Training and Professional Services would take place in the following month and the Maintenance revenue would be recognized at the rate of 1/12 per month starting the following month.

The bookings forecast line might appear as follows:

Rep	Cust	%	Licence	Training	Services	Maint	Current Month	Current Month +1	Current Month +2	Current Month +3	Current Month +4	Current Month +5	Current Month +6
A	XYZ	80%	100	2	30	18		150					

Whereas, the revenue forecast may look like this:

Rep	Cust	%	Licence	Training	Services	Maint	Current Month	Current Month +1	Current Month +2	Current Month +3	Current Month +4	Current Month +5	Current Month +6
A	XYZ	80%	100	2	30	18		100	33.5	1.5	1.5	1.5	1.5

To complicate matters further, the customer may lease the software over three years, paying annually in advance, in which case we have deferred revenue to subsequent years. In this (healthy) situation we begin to build a backlog of potential revenue and when planning recruitment, commission schemes etc., this backlog forecast is invaluable.

My ideal forecasting system must be able to handle all the above scenarios from both a data entry and a reporting standpoint.

Commissions

In the 30 years I have spent in the computer industry I don't think I have ever seen two commission schemes that are the same, or that haven't changed year on year or even in the current year. I think it is also true that most salespeople (particularly those in the software business where schemes tend to be highly leveraged) find their commission reports difficult to understand, and worse, that they are frequently incomplete, incorrect and late in arriving. This shouldn't be a surprise - most software companies I have worked in employ a clerk in the finance department whose sole job is

to administer commissions. This unfortunate individual has to put up with constantly changing schemes, poor tools and a barrage of criticism from his/her "customers", most of whom probably earn 3-4 times his/her income. To add insult to injury, generally, he/she has to manually extract numbers from invoices and post them to his / her own spreadsheet.

Authorised users should be able to define widely variable commission schemes and to apply these schemes to orders marked as 100% (Booked). The salesperson can then produce a commission report against these orders and can also produce a forecast of likely commissions based on his/her Bookings/Revenue Forecast - a stagger chart showing expected commission. Very motivating!

Conclusion: Forecasting is a critical Business Process, not a component of a CRM system

We have reviewed here the fundamental requirements of a good forecasting system. Many companies have produced Sales Force Automation (SFA) products (also referred to as Customer Relationship Management or CRM systems) where forecasting is one feature amongst many. Several of these products are available as hosted solutions for a monthly fee per user, and for some companies these represent an ideal solution.

My view, and the view of my colleagues at Procession Software Ltd, is that forecasting is a critical Business Process requiring a dedicated in-house solution. I don't want to tell my salespeople, who are very experienced professionals, how to manage their contact databases, and I don't want to dictate a sales methodology to them. I trust them to keep good records in Outlook, Goldmine, ACT! etc., and I am not enthralled at the thought of them spending hours attached to an internet application, defining leads, contacts, companies and opportunities. All I ask is that they spend as much time with customers as possible, that they meet their targets and that they keep me informed of the status of each deal. I don't want to employ a full-time forecast administrator who spends his or her life cutting and pasting Excel spreadsheets, neither do I want to be hassling salespeople on a daily basis at the end of the quarter or year.

What I really want is the ability, at any time, from any location, to access the key bookings & revenue forecast data that I need to manage our business effectively.

About Procession and the Author

Paul Greenfield is the Chief Executive Officer of Procession software Ltd, a company that develops and markets process-driven software that enables customers to automate key business methods, reducing costs and improving performance across the business. Paul can be contacted at pg@procession.com.

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