Forecasting – making it work for your organisation

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To the general population, the inaccuracy of weather forecasts is the butt of jokes. Yet ship owners, aircraft pilots, sporting enthusiasts and many others depend on weather forecasts to chart their course or plan their activities. Otherwise, they would expose themselves to intolerable risk. In the same way, every business needs forecasts – because succeeding in business depends on being able (more effectively than your competitors) to identify, respond to and take advantage of changes in demand.

Meteorologists work with the uncontrollable forces of nature. Although forecasting in business can be a challenge, at least companies have some control over the various parameters that need to feed into their forecasts. The problem is, few companies recognise the fact and exploit it to their advantage.

The first article in this series (see *Knowledge*, Spring 2003) made a case for treating the forecast as an integral part of running the business, a means of harmonising different perspectives within the business and supporting more robust decision-making.

In that article, we outlined StrataBridge's proven six principles for better forecasting, namely:

- Let the decision-making needs of the business shape the forecasting process.
- Integrate the financial and volume views of the business.
- Focus the process on the real drivers of change.
- A forecast is as good as the assumptions on which it is based.
- Seeking and reconciling different views can add value.
- Collaboration leads to a more robust view.

These principles recognise that forecasting is guesswork; they provide a foundation on which we can make our guesses more educated. Here we focus on the operational implications of putting the principles into practice.

Let decision-making needs shape the process

Forecast accuracy to 100% is an unrealistic objective. What we are striving for is to make the forecast "as good as it gets". This raises the question: "Good for what?" Which brings into focus the fundamental purpose of forecasting: to support proactive decision-making. So the specific decision-making needs of your business must shape your forecasting process.

At the operational level, detailed forecasts are needed to support and guide short-term decisions and activities. For example, a stock-keeping unit (SKU) forecast by day or week may be necessary to drive supply chain scheduling and execution in anticipation of real customer demand.

Beyond this short-term horizon, the same level of detail is not necessarily required, as the information is used for different decisions: e.g. for sourcing raw materials or managing capacity; or for decisions about resource allocation and capital investment.

These examples highlight the role of forecasts in supply chain decisions. Forecasts are also used by other functions in the business: e.g. the sales

function, or the finance function. Without an integrated forecasting process they are all likely to develop their own independent view. Understanding and integrating the different uses and users of the forecast is vital to developing a process that meets the needs of the business as a whole.

In many companies, the forecast is viewed as something the sales and marketing organisation 'should' own, but the process is not designed in a way that is meaningful to these functions. Almost inevitably, the administration of the process lands on the supply function, who then constantly complain about not getting sales and marketing buy-in. Productivity and the probability of improving the 'guess' both suffer.

Subsequently, in driving for improvement, the supply function alienates the other functions further: e.g. by asking for forecast inputs at an SKU level of detail (sometimes even by customer or distribution point), in volume not value, over longer and longer horizons.

In the extreme, this creates a forecasting spreadsheet that dims the lights when it is switched on. It helps to explain why the commercial, sales and marketing functions resist involvement in the monthly forecasting ritual; and why finance people reinforce their beloved budgeting and financial forecasting and review mechanisms as the only 'sane' view of the future.

Clearly, the ideal is to ensure that the forecasting process offers value to all the functions that are directly or indirectly involved.

To make this integrated process work, we must dispel a forecasting myth – the need for a "single set of numbers". This notion is particularly appealing when an organisation is working in chaos with multiple sets of numbers in each function, or the 'supply' community, where this is an operational necessity in the short term. However, an obsessive pursuit of a single set of numbers will alienate the people that need to be engaged in the process and limit the value the process can add to business decision-making.

A transition needs to be made: from producing one set of numbers to an 'integrated set of plans'. This transition will open up the process to developing options, choices and alternative views of the future underpinned by common assumptions and robust information.

It will require the ability to forecast at different levels of aggregation over different time horizons, which in turn will depend on the development of scenario forecasting and option development. Also required will be behaviours and skills that can reconcile different views across the organisation.

Integrate the financial and volume views of the business

The first article in this series described how organisations – unconsciously or intentionally – often separate their financial predictions ("the budget") from their volume predictions ("the forecast"). There are fundamental flaws in this approach.

Firstly, it is inconceivable to develop a meaningful volume forecast without making assumptions about price. Even though price elasticity can stretch to different limits in different environments, there will always be a relationship between price and demand. The forecasting process needs to recognise this.

Secondly, allowing a disconnect between financial and volume views can create unhealthy competition between the budget process and the forecasting process, with both activities vying for management attention and resources. In most organisations, people know how to "play the game" with the incumbent budgeting process. So the budget will normally 'win'.

Integrating these two different expressions of the future will bring to the surface many causes of misunderstanding and independent behaviour.

For example, in an environment where sales and marketing units are measured on predictions and delivery of financial targets (e.g. revenue), the specific product/variant mix will be relatively unimportant in the pursuit of "hitting my numbers". The repercussions on the supply organisation and the accompanying cost of complexity may well create a huge drain on profitability.

Equally, when the pendulum swings in the opposite direction, an overwhelming drive for efficiency and cost control can lead supply chain/manufacturing to a stance that limits flexibility. How often have you heard: "It's not in the forecast, so you can't have it"; or "We don't accept changes to the forecast in the first x weeks"?

In contrast, companies that integrate volumes and financials achieve more than an improved forecasting process. They also open the door to simplifying their budget process, challenging the typical annual pantomime of 'doing the budget' and breaking out of the year-end obsession that constrains many companies' approach to planning the future.

Integration of the financial and volume views of the business will require the capture, codifying and movement of data between them. Despite huge investment in "integrated ERP" packages over the last five years, organisations often have separate financial and transactional planning systems. Rules and protocols will be required, along with the necessary supporting information technology. But, more importantly, the right values and behaviours also need to be in place.

Promoting collaborative behaviour means moving away from the (fairly widespread) practices of promoting competition between functions and separating volume and value. For example, where sales and marketing units or other separate entities have their own independent profit and loss responsibility, second-guessing among the different functions of the business becomes the norm – and so does sub-optimal overall performance.

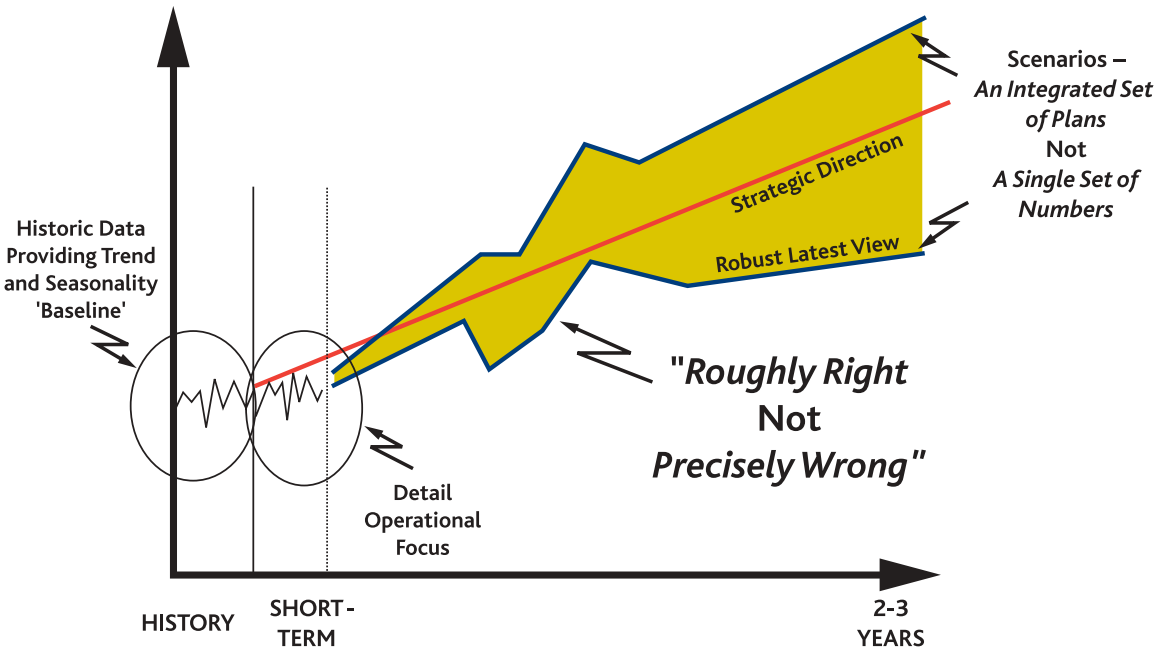
Focus the process on the real drivers of change

Typically, a few key drivers will determine the shape of future demand in your business environment. In the process of developing its business strategy, your company should have identified what those drivers are and how they influence your future performance (see *Knowledge*, Summer 2002).

By developing your forecasting and ongoing decision-making processes to be cognisant of the key drivers of change, you can bring to life the future your business is trying to create.

Each market you operate in, and each route to market that your business takes, could potentially have different drivers. The forecasting process needs to be sensitive to the needs of each channel, each consumer or customer segment, and each key account; to the landscape in which you operate, and to the one you are moving toward.

There will inevitably be uncertainty around the key drivers of change in your environment. If there weren't uncertainty, you wouldn't need forecasts (which, as we said before, are really educated guesses). However, this does not mean that we should throw up our arms and say, "It's out of our control!"



The internal drivers of change are the ones you have most control over. They need to be tracked and influenced appropriately. Distinguishing the key drivers from less important ones will bring clarity to your forecasting process, and avoid the chase for minutiae that give diminishing returns.

Unfortunately, many forecasting processes do not identify the key internal drivers in a way that promotes the best approach to managing them. Just as importantly, the set of key drivers needs to be reviewed continually as the environment in which you operate changes.

To take control, we firstly need to capture what we 'know' – this is the first step in consolidating understanding across the organisation. Beyond what we know, we must identify what is 'knowable' – the intelligence that we do not have today, but can acquire to give us a better understanding and prediction of the future.

Once we have captured what we know and exhausted what is knowable, then we are left with the residual uncertainty that dictates the risk we need to manage.

To manage this risk over the longer-term planning horizon, it is important to recognise that being roughly right is better than being precisely wrong. In most cases, it will not be possible to track the drivers of change that affect the future shape of demand in a significant way to extreme levels of detail.

Accepting this, and establishing a process that gives you early warning of major changes in demand, will help to break the illusion that "precision = accuracy". After all, what is the point of a figure to six decimal figures when it is only accurate to within +/- 50%?

The time freed up, by getting away from the white noise of detail in this way, can be more profitably spent on managing the real vulnerabilities and opportunities facing the business.

Only as good as the underlying assumptions

Focusing on "the numbers", rather than the assumptions that underlie them, is a widespread but dangerous habit. Marketing, Sales, Production and Finance will all have their own views on how many units of a given product or service is likely to be sold. All of these views will be based on different assumptions.

Without sharing and reconciliation of the assumptions, there will be constant disagreement about which numbers best predict the future. This, in turn, can suboptimise the decision-making process: by delaying or obstructing the decisions that need to be made to prepare the organisation for that future; or by leading different parts of the organisation to taking independent decisions based on partial information.

To establish a robust forecasting process, evolution is required: from a 'numbers-based' approach, through to a level of maturity where the assumptions can be used to validate and support future projections and provide a basis for sensitivity, risk and opportunity management.

For many people, this end-point represents vulnerability. They are putting themselves in a position where, by declaring their assumptions, they run the risk of being challenged, or – even worse! – being held accountable in a way they never were before.

At StrataBridge, we have identified the evolutionary stages to go through to overcome this mindset. Early attempts at documenting assumptions should be handled carefully. A "learning by doing" attitude is often the most effective: it implies working with people to develop and refine the process, at the same time reducing fear of the new way of working.

Once through this early phase, refinement can open up a range of possibilities to help focus the organisation on the real drivers of change and their proactive use. Identifying critical distinctions between risks, opportunities and "what ifs" will enable a migration to scenario forecasting and a richer dialogue about future projections.

Reconcile different views to add value

Of course, a more collaborative approach to forecasting will work only if people accept that seeking and reconciling different views is value-adding rather than time-wasting.

People may hold different views because they are working with different data, or a different set of assumptions. But a host of other factors also come in to play, such as the environment in which people work, individual personality and style, and the organisational DNA that encodes our values and behaviours.

Notable examples include the 'high intellect' environment (more PhDs per capita) and the 'individualistic' environment (personal results orientation), which perpetuate the idea that "my view is the right (and only) view."

Other factors can promote uncollaborative behaviours. Existing processes may reinforce functional perspectives rather than integrated views. Performance measures, and reward and recognition mechanisms, are particularly potent. Once people recognise the impact that processes, measures and mechanisms can have on their organisation's ability to develop 'joined-up' thinking, they are in a much stronger position to identify and change whatever will do most to encourage the desired behaviours.

Less easy to influence are factors that lurk beneath the surface, such as the history and experience of individuals and groups, or their egos and pride. However, dealing with the organisational factors as we have suggested, along the three axes of organisational DNA – business context, skills and competencies, and performance management (see Knowledge, Spring 2003) – can make these personal factors manageable.

Collaboration leads to a more robust view

Most of the literature on the subject of collaboration, particularly Collaborative Planning, Forecasting and Replenishment (CPFR), has focussed on the technical capability now available to move data, at the speed of light, through the internet. This will indeed allow significant changes to the way in which information is shared for forecasting processes – provided you are applying the other principles as well.

There is a compelling logic for developing collaborative relationships to increase visibility through the value chain – if the commercial, strategic and other considerations indicate that collaboration makes sense. In this situation, our other principles help to shape the collaborative relationship.

They define the 'knowable' information that exists through the value chain and where it can have the greatest leverage. Getting this information to the right point in the chain allows for better assimilation into the forecasting and decision-making process. At the same time, it removes the friction and second-guessing that is typical when this information is not visible.

Approached correctly, collaboration offers a range of competitive advantages to all the trading partners involved, aligning resources, processes, values and behaviours to a mutually beneficial set of business objectives. In many applications, it is the forecasting process that benefits most from developing collaborative behaviours – but remember: collaboration has to start internally before you can hope to exploit it with external trading partners.

Better forecasts

No forecasting process will deliver 100% accuracy consistently. But forecasts can be improved significantly, in a systematic way, by applying our six principles.

Not only will the forecasting in your organisation improve – you will also notice a positive impact on any results that depend on increased integration and alignment.

Ultimately, you will reap the benefits of 'joined-up' thinking and behaviour.