Chris Turner of StrataBridge explains some of the reasons why many companies are drowning in data, but starved of knowledge.

What's the story

MANY BUSINESSES TODAY are facing a paradox. The promise of wall-to-wall ERP systems providing real-time information has resulted for some in a sea of data – often with no better understanding of what it is indicating or, worse still, some critical signals masked by the noise.

The problem is compounded by the constant and simultaneous pursuit of growth and cost improvement and the consequential change that comes with this.

And for most companies, this process isn't likely to slow, it's more likely to accelerate. Mergers, acquisitions, regionalisation, globalisation, more and faster innovation: with the potential value comes potential complexity and certainly a heap more data.

If organisations are to make sense against this changing backdrop, they need to understand the story behind the numbers.

Ultimately, management information needs to support better decision making; and to achieve this, companies need to convert data into issues, opportunities, options and choices – and to be able to make a decision when they're given a choice.

To carry out the first part of that process, managers need to understand the assumptions the data is built on.

All functions, and individuals for that matter, have different views of the information they create and use. These varying views are founded on different assumptions and, used properly, can create more robust decision making.

But more often, such different views are seen as an obstacle. Various functions demonstrate a bias that leads to delay or obstructs the decisions that need to be made; or different parts of the organisation take independent decisions based on partial information.

Focusing on 'the numbers', rather than the assumptions that underlie them, is a widespread but dangerous habit.

Consider this simple example of developing a forecast or demand plan.

The marketing department's forecast of 2,000 units assumes that a new campaign will have a dramatic uplift on previous sales figures. The sales department, however, has a forecast of 1,400, because a key customer looks likely to de-list a particular product and a key competitor is about to launch a new challenger product.

Logistics' forecast is 1,500 because sales were 1,500 this time last year. Meanwhile finance has a forecast of 1,750 – because that's what is in the budget. Compound this with some sophisticated statistical forecasting tools and you have another view of 1,583.4, based on an algorithm few users understand.

Sound familiar? Unless assumptions are shared and reconciled, there will be constant disagreement about the numbers. So the forecast will fail in its purpose – to support decision making that ensures effective operation of the business.

The problem is not restricted to the demand plan and affects the interpretation of data at all levels of decision making.

ROI

So how do senior management ensure a return on their investment in IT beyond speeding up transactional processes and gaining operational efficiencies?

There is an opportunity to gain insight from the masses of data available, but success lies initially not in more IT or automation, but rather the decision-making processes and, often more importantly, the behaviours of decision makers and those feeding the information process.

There is a need to combine both quantitative and qualitative information around key decision drivers.

In developing a format for management information, it is important to integrate quantitative volumes and financials with underpinning qualitative information on assumptions, changes to assumptions, vulnerabilities, opportunities and decision support.

This format has been proven as a powerful means of communication and ensuring organisations achieve a consistent understanding of the 'story behind the numbers'.

Right processes

From a systems perspective, many organisations have been left to automate this kind of decision-making support for themselves – because while transactional ERP systems are excellent at aggregating and disaggregating numbers, they are not designed to aggregate and disaggregate management assumptions.

Before a company addresses automation, it must establish the right decision-making processes and behaviours.

There needs to be an integrated decision-making process that brings together different perspectives from across the business, creating the opportunity for understanding to be developed:

- What major assumptions are behind these plans?
- What changes to assumptions have occurred since the last cycle?
- What are the issues and gaps worth knowing about?
- What are the risks and opportunities around this latest view?
- What decisions have already been taken but are not yet reflected in this view?
- What decisions should the company be taking now?

One way forward is to bring together this dialogue under a five-step process comprising new activities, demand, supply, integrated reconciliation and senior management review – developing an escalation process that gets the right information to the right place in order to make the right decision at the right time.

In the context of integrated decision making, managing and communicating assumptions plays a huge part in enhancing the company's understanding and reconciling different views of the future.

By supporting the numbers with the underlying assumptions, risks and opportunities, the company can develop a richer dialogue about the future projections that decisions are based on, helping it to focus on the greatest causes of uncertainty.

It is vital to understand the range (high/low) of opportunities, risks and uncertainties if the company is to improve the quality of its decisions looking out over different timescales (as shown in Figure 1).

Uncertainty

In recent years, increased innovation, broader offerings to customers and reduced product

behind the numbers?

lifecycles have made the old 'one-size-fits-all' approach to crunching the numbers simply inadequate.

Progressive organisations have switched their focus from raw data only, to balance numbers with the underlying assumptions, in order to reduce the inherent uncertainty to a minimum and better manage risk.

However, uncertainty cannot be removed completely. There is still a range – and that range needs to be understood in the context of the decisions that will be taken on that information.

'Roughly right, not precisely wrong' is a principle that guards against the illusion that 'precision = accuracy'. After all, what is the point of a figure to six decimal places when it is only accurate to within +/- 50%?

In environments with extreme uncertainties – companies on the 'bleeding-edge' of technology breakthrough, movement into new markets and channels, pharmaceutical companies in the early stages of development – organisations need to go beyond understanding the range around a given projection, and may need to run alternative scenarios based on unique sets of different assumptions.

This level of sophistication requires a different level of input from across the business, and an understanding of how and when to use the output from different scenarios. But accepting a range of uncertainty and the probable need for scenario planning typifies maturity in the decision-making process.

One of the most telling characteristics of an organisation that understands the distinction between data and knowledge is the behaviours it develops towards the role of assumptions in decision making throughout the organisation.

Senior teams are flooded with information, but reliable information is surprisingly scarce. All information coming to the top is filtered, sometimes with good intentions, sometimes with not such good intentions.

Evolution

The evolution from a 'numbers-based' approach, through to a level of maturity where the assumptions are used to validate and support decision making and provide a basis for sensitivity, risk and opportunity management, creates much greater information visibility throughout.

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.

StrataBridge has outlined a number of 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 employees' 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.

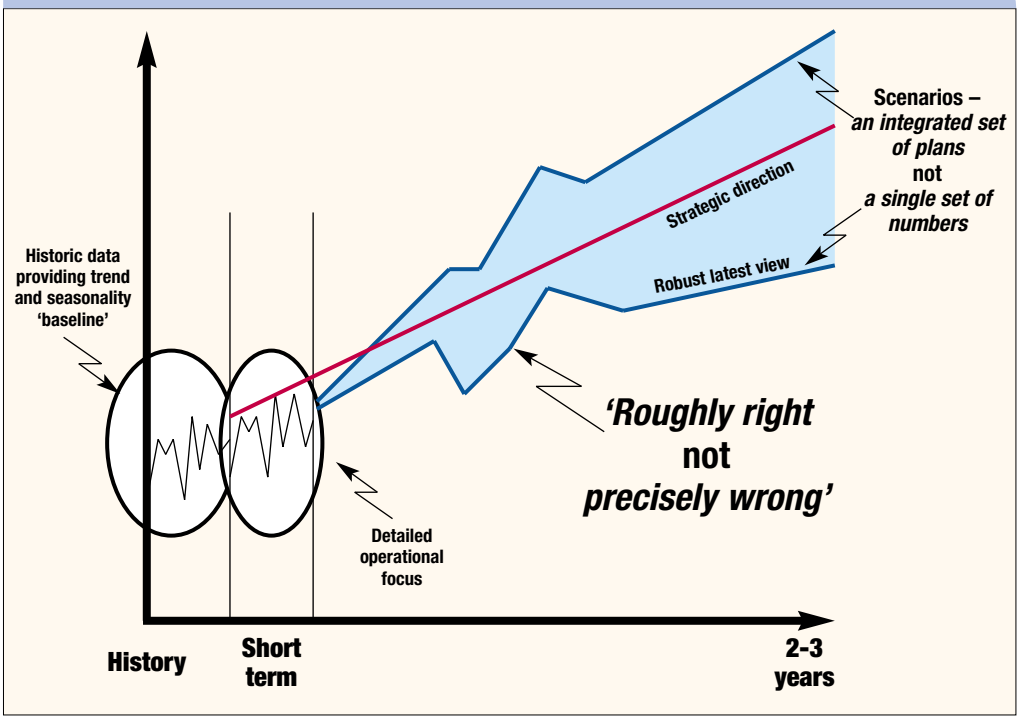
By identifying critical distinctions between risks, opportunities and 'what-ifs', the organisation can then migrate to scenario planning and a richer dialogue about options and choices.

In summary, 'drowning in data, but starved of knowledge' is a very important watchword.

The key to success is to get a shared understanding of what the numbers mean, rather than getting caught up in the numbers. To achieve this insight, companies must focus on their assumptions, changes, risks and opportunities – the story behind the numbers.

And while automation is important, your return on investment will be significantly higher and payback faster if you lead with developing the right processes and behaviours.

FIGURE 1: The shape of the future



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