

Business Intelligence

Business Intelligence (BI) is an umbrella term introduced by Howard Dresner of the Gartner Group in 1989 to describe a set of concepts and methods to improve business decision making by using fact-based support systems. It generally covers terms like Executive Information Systems (EIS), Decision Support Systems (DSS) and other similar terms to describe systems that provide directed background data and reporting tools to support and improve the decision-making process of business organisations. The main players in this space (Business Objects, Cognos etc) have focused on large enterprises with expensive, complex solutions. There is an assumption, therefore, that BI is the preserve of large businesses and does not apply to SMEs. Can SMEs use and benefit from BI? – we believe that they absolutely can.

What is BI?

Overall, BI is designed to help users gain comprehensive knowledge of the factors that affect their company's overall performance, thereby highlighting where management intervention may be required. As such most accounting reports fall under the term BI. Traditionally, though, the accounting profession has tended to stick to simple reporting for SMEs such as Profit & Loss, Balance Sheet, Cashflows compared against an annual budget and possibly some gross margin analysis or other analyses often done through Excel spreadsheets. However, whilst accountants are comfortable with P&L's and Balance Sheets, operational management often are not. BI tools have looked at concepts like Key Performance Indicators (KPIs) and Balanced Scorecards to produce meaningful information that top management can easily digest and act upon.

Whilst accountants have the intellectual capacity to produce such information, often the accounting systems used by SMEs do not have the functionality to allow easy analysis of results or the scope to maintain the non-financial measures that are necessary for most KPIs. In simple terms two main elements are needed for BI - the data on the company's activities/results and tools to report on that data.

What Data is Required for Good BI?

The data generally required to address most SME's needs falls under 2 main headings:

- Financial results (usually provided by an accounting system)
- Non-financial Statistics/measures on activity etc (sometimes held in other systems e.g. number of employee hours by activity)

It is then a question of how this data is sliced and diced:

1. Time Periods

This can be simply monthly but in some cases, where weekly cycles are involved, calendar months are not meaningful and four 4-4-5 quarters or thirteen 4-week periods are required. In some cases weekly division is necessary to be most meaningful and facilitate quicker decision making, for example in a supermarket, where weekly results are important to take action quickly as weather and special promotions can have immediate impacts. Many SME accounting systems will not handle weekly periods or analysis which could be a limitation.

2. Comparatives

To identify where action is required, comparatives are required as benchmarks to determine where management need to focus attention. This can be based on:

- Comparisons for last year (and previous years if possible)
- Annual Budget
- Revised Budget or forecast

The more these are a reflection of what is expected or what should be happening the more focused management can be on the exceptions where action is required – ie: if the business is satisfied that the budget is a good representation of what needs to be achieved then management only need to concentrate on significant exceptions or variances from this.

Whilst these elements are largely determined by the business itself and stored in the businesses own accounting system, the holy grail in comparatives is industry benchmarking against similar businesses. The requirement here is to have enough of a critical mass of data on similar businesses to produce meaningful benchmarks. This is easier to achieve in groups like franchises or multiple branch businesses where multiple sets of data can be available on the one platform for benchmarking. It can also be achieved by accountants with multiple clients, particularly where they specialise in particular industry sectors. If enough data exists to do this then it is a matter of ensuring that the system used can provide benchmarking capability to run KPIs across multiple different datasets.

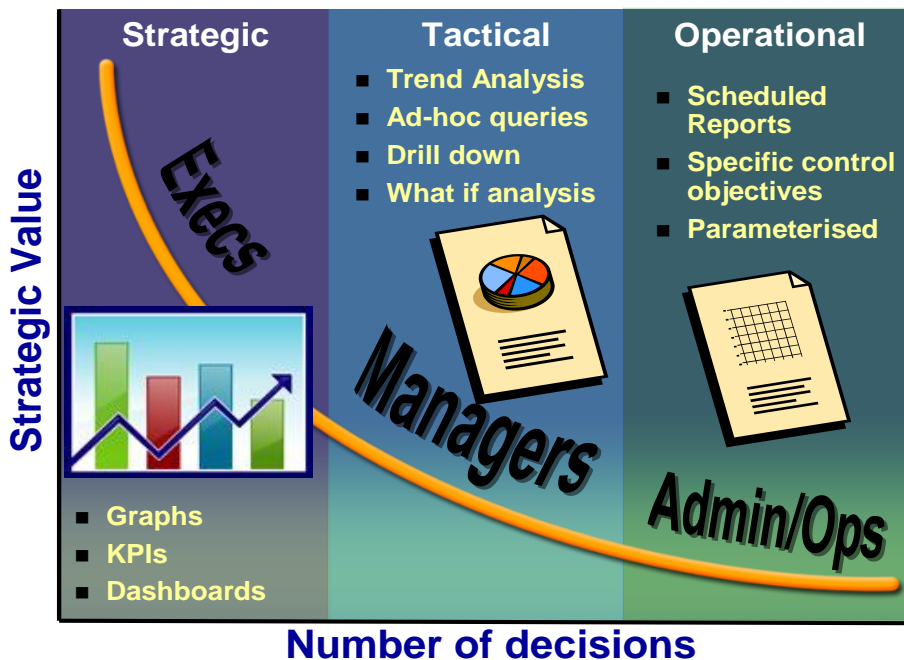
3. Business Tracking / Analysis

Unless the business and its product/service is very one dimensional, tracking or analysing the results to reflect the business operation and its different elements is required. This could be by business line, location, project, job, customer type, industry sector, department or indeed any combination of these. These are sometimes called profit centres or cost centres but essentially it should be whatever analysis management should be considering to facilitate better understanding and control of the drivers of the business. As such they are often combinations of multiple analysis types – for example: business line by location or project type by division. Ideally this analysis should be easy to link transactions to get at without having to break up codes into constituent parts. For example, the coding could simply be to a project ID but each project is separately linked to analysis types like location, project manager, business line etc.

Most accounting systems allow this to be built into the General Ledger coding structure and allows all transactions to be coded to relevant analysis codes via the GL code. However, this makes it difficult to introduce or change such analyses elements as the company grows, without completely revamping the GL coding structure. It also means that all valid combinations of GL code and analyses codes have to be created in advance of transactions being posted to them. A more flexible approach is to have the analysis element defined separately with dynamic creation of valid combinations as transactions are coded to GL codes where further analysis is required.

What Reporting Capability is Required?

Once the data required is available with the ability to analyse transactions as outlined above, the next question is how can it be extracted to make meaningful management information out of that data? This requirement will very much depend on the frequency and relative importance of the decisions that may result from that information. At an operational level listing reports are usually enough, including aged debtor listings, sales invoice listings, orders ready for dispatch etc. However, as the decisions go up the management chain and become more strategic, the use of tables, graphs and KPIs become more prevalent with information presented in an increasingly summarised form. The following shows a graphical representation of the different reporting requirements within a company:



To deliver this type of reporting, a business/accounting system needs the following:

- Ability to define analysis codes suitable to the business against which all transactions can be coded. This can be an element of the GL code, but as outlined above is better if each analysis element can be defined and accessed separately (eg: location, business line, department) in producing reports.
- Ability to store non-financial statistics by period, analysed in the same way as the financial results, with the same comparatives (previous years, budget, revised budget, forecast etc)

- Ability to define KPIs as measures which combine financial and non-financial results, which can be reused continually
- Ability to include data in reports from any part of the system and drill down to the detail behind any report
- BI tool to allow management to analyse or slice and dice the results and produce ad-hoc queries, tables or graphs by easy selection of the different reporting elements
- Executive dashboard to include reports, tables, graphs or KPIs on depending on the role of the user

There are a number of specialist BI systems that provide this capability or some accounting systems that provide it as part of its functionality. The main thing is ease of use and ease of access to the different reporting elements, without having to understand the database structure of the system or the breakup/parsing of codes into component parts.

What are KPIs?

KPIs are financial and non-financial metrics which are used to help an organisation define and measure progress toward organisational goals. A number of important business drivers and processes which have measurable impacts on key business objectives and overall business performance, cannot be measured in £s. Likewise some business drivers which can be measured in £s, need to be related to other measures to make them more meaningful. For example:

- Reducing Support costs in a P&L may look good but may hide the fact that support costs per call serviced have increased
- Stable revenue for one product or service might hide the fact that average spend per customer is down

Measures such as these are often called Key Performance Indicators (KPIs) and give management real Business Intelligence “BI” that helps them make better informed decisions on how to improve performance. They are usually a combination of the financial results and statistical measures and can therefore be wide and varied. Some examples include:

- average revenue per customer by location
- cost per service call
- Sales cost per unit sold
- Gross margin by business line
- Average revenue fee per employee hour
- Average cost per hour
- Wages cost as a percentage of revenue

- Proportion of customers coming into the store buying from the meat department
- Number of complaints per new customer
- Value of repeat orders as a percentage of sales
- Number of units manufactured per hour or labour

There is no fixed set of KPIs that work for any industry – there are as many different KPIs as there are different business types and indeed different management teams can require different measures that work for them also. These can be benchmarked against budget, revised budget, forecast or historic results. Indeed with larger groups such as franchises and accountants with multiple clients, these can be benchmarked against other similar businesses.

Do Accountants for SMEs have a role?

Absolutely. Accountants have all the intellectual capability and knowledge to produce meaningful KPIs and provide BI other than accounts once they understand the business involved. To date accountants for SMEs have not always been particularly involved in non-financial measures and KPIs, however this is mainly because they have not had ready access to the tools required, which were historically priced at a level well beyond the affordability of an SME. However these tools are now becoming available and accessible over the web – see www.accountsIQ.ie for example. These types of systems allow user defined non-financial statistics to be captured in the same way as financial results and KPIs to be defined for inclusion in executive dashboards etc.

Accountants, particularly those offering outsourced services to SMEs, need to move up the value chain to provide this more valuable feedback to the owners and managers of those SMEs which will help them become more important to the SMEs as they grow. It is also more interesting to work with SMEs and help them drive their businesses forward, making decisions about the business rather than simply reporting on historical results and maintaining statutory books.