Financial Reporting – The Five Types of Solution

So you have a finance system (and other related systems) that collects data in incredible detail and you now want to deliver the information to the business. Most vendors will suggest that their product will solve your particular problem. Therefore, as a starting point, it is essential to understand the options available to you and the advantages and disadvantages of each, says Mark Cracknell.

Where there were once limited reporting solutions on the market, there are now literally hundreds of options. This explosion in choice is largely due to relational database designs built on open platforms multiplying the options open to the user. Our work as vendor independent consultants allows us to see many of the Management Information System ("MIS") and Financial Reporting Solutions, what they can deliver and how they function. It leads us to conclude that despite the number of vendors and products available, there are only five distinct solution options and that all offerings fall into one of these distinct categories. Three of these solutions we would label 'Reporting Systems' and two are true 'MIS's'.

At the outset, let us make the distinction between finance systems (within this phrase we include ERP and accounting systems) and MIS's or Reporting Systems. The purpose of finance systems is to collect the data that is required by you to run your business. This may be driven by legal requirements and also, one hopes, the needs of your particular business. Such systems are designed and built with the need for transactional efficiency as the main driver, the underlying table and field structure thus reflects this. On the other hand, an MIS or Reporting System is designed for reporting efficiency and as such the data is structured in a format that is driven by the reporting needs of the organisation. **In our experience transactional efficiency and reporting efficiency cannot be maximised in the same environment as they have completely different objectives.**

Reporting Solutions

Our review of solution types will start at (still) the most common, ***Type 1 – Stand-alone Spreadsheet Reporting***. This could be the use of a spreadsheet via manual entry or through more complex download/macro/look-up routines. As it is the most common, we will highlight the advantages and disadvantages in some detail and then compare each other solution type to this:

TABLE 1: The Advantages and Disadvantages of stand-alone spreadsheet reporting

Advantages	Disadvantages
• Leverages current spreadsheet knowledge • Data storage from multiple sources • Excellent formatting • Ease of distribution • The potential to model data i.e. 'What if?' scenario • Low cost • Finance department controlled (although you may be reliant upon IT to provide downloads)	• Inherent spreadsheet weaknesses (single user, lacks controls and therefore auditability, size restrictions, scalability) • Knowledge risk – spreadsheet models are often undocumented • Manual intervention – numbers may need to be reconciled and can be changed without control • Data consistency – are the numbers the same source and derivation each period? • Data is only as up to date as the last download • No assistance in controlling the budget process • High cost of processing and maintenance • Does not automatically deal with inter-company eliminations • Sarbanes-Oxley compliance is more difficult to achieve

Based on the above table, along with many others, it is our opinion that stand-alone spreadsheet reporting represents the highest risk to an organisation.

Most modern financial systems now provide a reporting solution of sorts, and this leads to our next two solution types. ***Type 2 – The Proprietary* Report Writer*** is provided to you as an integral part of the finance system solution. Whilst this can be an internal report writer, nowadays it is increasingly likely to be a spreadsheet Add-in or Add-on. If the solution is not spreadsheet driven, you will of course lose some of the spreadsheet driven advantages listed in Table 1. More importantly, you will potentially be restricted to one data source (i.e. the finance system) and the underlying data structure that exists within it. The latter could restrict you in terms of:

**Proprietary – used to describe software solutions that are 'non-open'*

- The number and format of budgets. Although most modern finance systems allow multiple budgets, data would need to be collected at the level of detail that actual data is collected. It is often the case that budget or forecast data is collected at a higher or summary level.
- The number of hierarchies. Most finance systems will allow you to maintain some kind of hierarchy but this is often limited to one. As an example of how this is restrictive, most companies require a management reporting and a statutory reporting hierarchy as a minimum.

The only disadvantages of a Type 1 solution that are potentially solved with a Type 2 solution are the issues of real time data (although I would ask whether this really is an issue when talking about a periodical reporting system), knowledge risk and data consistency.

As a result of open database designs of many modern finance systems, vendors are just as likely to offer you a ***Type 3 – External Report Writer*** solution. This solution would normally be specifically configured for the particular finance system although it may require further development to meet your specific needs. Our experience of these tools suggest that they have the same advantages and disadvantages of a Type 2 solution with the added disadvantage that you will be more reliant on the IT department as these tools are more technical.

For both Types 2 and 3, which query directly against the finance system, you will also need to be aware of the potential impact upon the speed and response of the underlying system. Any query that runs against the finance system will degrade the performance, the only question is to what extent? As the finance system is your primary data tool, any degradation of performance could impact a number of users. In our experience, organisations have often purchased a Type 3 solution in the belief that it will solve all their reporting problems. The reality is that in order to do this, additional work is required to bring the financial and operational data together into a data warehouse and use this as the reporting source (see MIS below).

Types 1 to 3 are what we would describe as ‘Reporting Systems’ and have the advantage that they are all relatively low cost solutions. These types of system retrieve and deliver data and tend to assist you in analysing and controlling ‘in a backwards direction only’ i.e. looking at the past but not at the future.

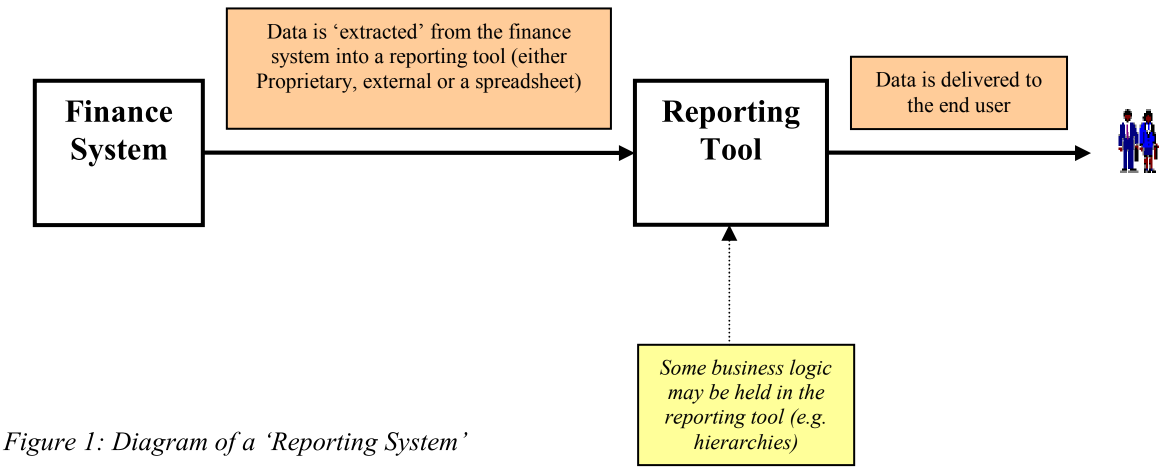

Figure 1: Diagram of a ‘Reporting System’

Management Information Systems (“MIS”)

The final two types of solution we would describe as true ‘Management Information Systems’ looking both backwards and forwards and also assisting the accountant with process control. Both MIS solutions described here are very similar in what they deliver, the fundamental difference being the way that they store the data. ***Type 4 – Integrated Proprietary MIS*** provides a proprietary data repository that is populated with data from your underlying systems at reporting time. A ***Type 5 – Integrated Open MIS*** differs in that the underlying data repository is an open database (i.e. Oracle or MSSQL).

Financial Reporting – The Five Types of Solution

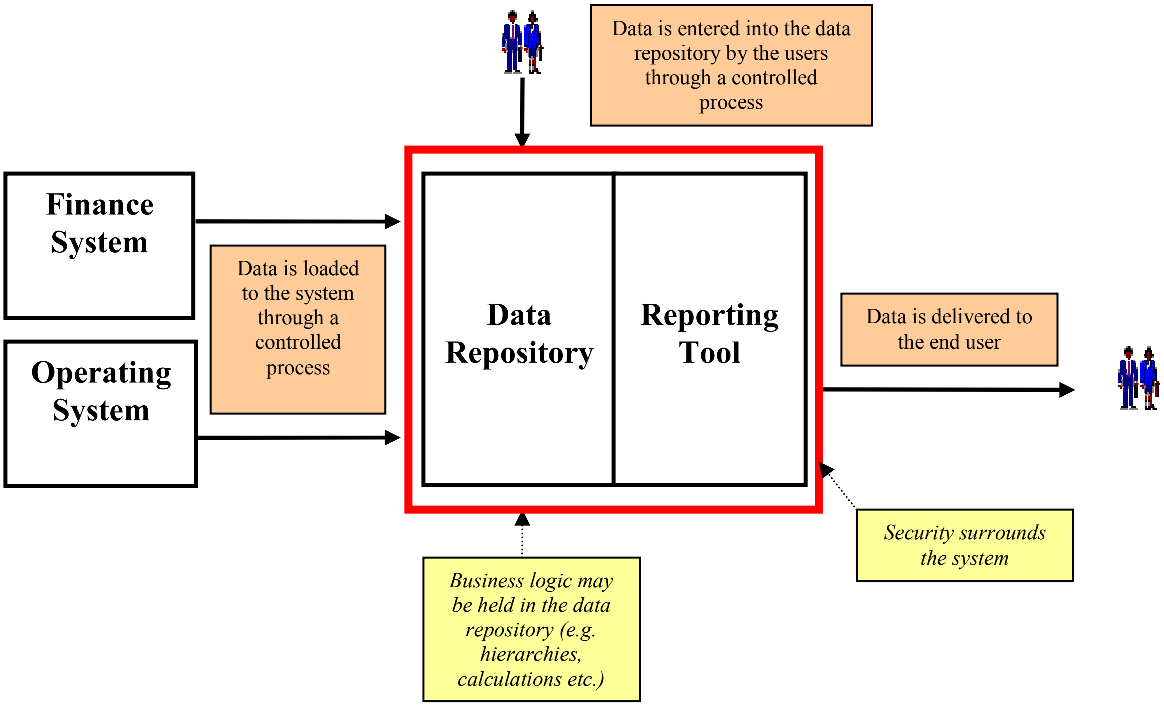

Figure 2: Diagram of a Management Information System

TABLE 2: The Advantages and Disadvantages of a Management Information System

Advantages	Disadvantages
• flexible, easy to add or change structures • Multiple sources and disparate systems i.e. all your data in one place • Data consistency • You can maintain multiple hierarchies (i.e. management accounts, statutory) • The ability to collect data (i.e. budgets and forecasts) through a controlled process • Various distribution methods • Controlled by the finance department • Less knowledge risk • Automated and controlled processes • May perform modelling • May perform allocations • May perform inter-company functions • Sarbanes-Oxley compliance is easier to achieve	• Cost • Data is not 'real time' • Normally summary level detail (balances) although 'drill-out' to detailed transactions may be possible • If reporting is proprietary, it may lack formatting • Investment in new skills • There will be a need for resource to manage the database

As you can see from Table 2 above, a true MIS provides you with significant advantages over a 'Reporting System'. The main differences are:

- The ability to collect data through a controlled process. Our experience suggests that an efficient and controlled budget/forecast process is a major priority as organisations move towards rolling twelve month cycles. A defined and automated process also eliminates data inconsistencies, manual intervention and reduces knowledge risk.
- Business logic is held within the MIS thus enabling you to hold multiple hierarchies which are easy to add to and modify. This can be of particular benefit where an organisation is growing (either by acquisition or internally) or

where reporting formats change frequently. Through the use of business logic, some products are able to model, allocate and automate inter-company eliminations.

As you would expect the additional functionality comes at a price and MIS's are likely to be more expensive than Reporting Systems. Nevertheless, there are a number of products on the market now which provide real value for money and compete very strongly in the SME market place. This, again, is due to the 'open system' revolution.

What is important to note is that the implementation of a 'Reporting System' is likely to create a change of processes within an organisation whilst the implementation of a full MIS is a change that, if it is to be successful, is a cultural change throughout the whole organisation.

We would conclude in saying that, despite what some vendors would have you believe, no one solution fits all requirements. We have experienced circumstances when each of the solution types mentioned would be the most appropriate for an organisation given either their needs or the budget available. Within each solution type there are then a number of products which have strengths and weaknesses in each area. What remains imperative and critical to each project is the need to specify the needs of the organisation and then to select the appropriate solution.

Mark Cracknell ACA is Managing Director of Emcee Consultancy, independent specialists in financial reporting and management information systems. Tel +44 (0) 1473 424178. Email markc@emceeconsultancy.co.uk. Website www.emceeconsultancy.co.uk