**Proposed Article for CIMA Insight**

**Article 1 - Business problems and spreadsheets**

*Introduction*
The development of ERP systems in the 90's and early 2000s (e.g SAP, Agresso and Oracle) has generally reduced reliance on those spreadsheets not integrated into the main enterprise level systems. With tighter external regulation and the need for organisations to prove that internal process controls and robust audit trails are in place, spreadsheets are now seen as a potential risk to sound governance. Furthermore, with a new emphasis on better business support services at ever lower costs, spreadsheets and other End-user Computer tools (EUC) are under fresh scrutiny.

The following dialogue between a CEO and a CFO sets out a not untypical business scenario and poses what for many might be some uncomfortable questions. A follow up article will provide some solutions from the CIMA-Loughborough Shared Service Centre roundtable meetings and explore how top companies are getting to grips with the spreadsheet culture.

**Act I - An everyday tale of everyday business folk!**

Sunny Yip, Director of Operations for Delicious Products - Europe, has asked to see the CFO, Bill Davis. Sunny gets straight to the point and explains the issue that he's had with one of Bill's top accountants.

'Two weeks ago I asked our business partner, Freda Pickles, to have a look at the cost of staff time and traveling that we are incurring in servicing one of our more troublesome customers, Bigfood. All I wanted to know was this. Should I lean on them for causing unnecessary costs (or at least an unfair share of our sales liaison budget) by constantly demanding that our sales people and our design team attend what are effectively their internal planning meetings?'

What I got, three weeks later, was a spreadsheet comprises of eight different work sheets one of which had a graph comparing the total cost by month of car versus rail travel and a recommendation that our staff should use public transport whenever possible. WHATT!!!

I looked at it and spotted someone, KN Mira, who I personally know transferred to our Seattle office, two years ago. I told Freda to check everything. Two days later I got the spreadsheet back with 'amended' in the title. I spent 20 minutes trying to figure out what was different from the original, only to spot that the total cost of design staff time for the last 12 months had inexplicably reduced by 30% in this version. Apparently, there had

been some issue with a rogue macro!' More like the staff details simply hadn't been updated!

I asked Freda to check the whole thing yet again, but I only got an auto reply saying that Freda was now on secondment to the Paris office for three weeks. Someone who answered her phone called Terry Zhang said whilst he couldn't access Freda's files he'd be more than happy to build me another spreadsheet from scratch the following week.

Now, I wouldn't have seriously jeopardized the contract with Bigfood on the basis of traveling costs alone but it got me thinking, 'how much confidence I should have in the information I get from finance?' These people have so little savvy when it comes to real business issues and, if a spreadsheet formula is, say, adding in the date then I doubt whether they would spot it. You keep telling me that if we outsource the rest of our finance function then there won't be a good enough connection with the business, but honestly, right now I'm feeling that our business partners aren't fully connected with planet earth! I want a full report on business information and insight by next week. And make that a one page report in HANDWRITING!

In response, Bill carefully explains that this is an unusual occurrence of problems in an ad hoc spreadsheet. All significant spreadsheets have been risk assessed, and checked by the internal audit department in New York. In fact, Freda spends most of her time doing spreadsheets and she is seen as an expert with special skills in pivot tables and xbrl. She was Head of Management Information at one of our competitors, indeed the CFO personally recommended her for this position.

But Bill has been in this sort of situation with Sunny before and, just like on many other occasions, he actually hears his mouth saying 'Sorry Sunny, I'm on the case, they'll be a full investigation. Trust me, I'm an accountant'.

Next, Bill goes and does what he has found works before in this type of situation. He goes for a jog in the local park, then sits and thinks for a while. Freda hasn't done anything wrong but all the same, deep down he knows that Sunny has a point. Maybe management accounting does have a spreadsheet culture? Maybe the business partners aren't getting out into the business enough? Maybe I can't resist finance being outsourced for much longer?

He starts to inwardly rehearse his case. 'But I've got some of the best accountants in the region. They come to us because we pay good salaries. HR uses a local computer training consultancy to check applicants' spreadsheet skills. Moreover, our training budget is still 'protected' even in these pressured times. But unfortunately, it starts raining and Bill soon finds himself, in the local pub talking to a weirdo with a red beard about his spreadsheet problem, and his failing marriage.

'You need to read a bit of Plato', says his new found friend. Was he a marriage counselor then?' Fred replies. 'Not exactly, but he did have a certain take on reality, and maybe that's your problem at the office!'
'Tell me more,' says Fred. 'It can't make it any worse and maybe I could do with a laugh.'

'It's like this,' replied the bearded one. 'Suppose you were born in a cave with no lights and you're now sat behind a wall near the entrance so that all you could see are the shadows from the people who pass by the cave in the daylight projected onto the cave wall in front of you, After many years you would come to think that the black, two dimensional, shadows were real.' 'Perhaps so, perhaps not' replies Fred,' where's this going?'

'It's not going any further,' replied the wise one. 'It doesn't need to. Think about it. Maybe your spreadsheet 'geniuses' are creating their own reality? Maybe they are detached from the real world of business because they are seduced by the internal logic and order of the spreadsheet. Playing about with columns and rows of figures are therapeutic to some.' 'Fancy another pint?' He looks up, but Bill is already rushing back to the office to write just that sort of 'one pager' that Sunny will love.

**Act II - So much information so little insight?**

The next day, Bill decides to work at home, his mind racing with the way his department provides management information and the way business partners use spreadsheets. We're not doing anything that's radically worse than any other finance function but that won't cut it with Sunny. He paces the room, rehearsing his ideas to an imaginary Sunny.

We live in an information rich world. Information drives business and business needs drive information technology. Keeping ahead in the knowledge-based economy means that our finance staff should be the 'go to' experts in data processing systems. Spreadsheets can be responsive, require little training and everyone in business now learns them at school. They can be linked with ERP and standard office applications, as well as giving the ability to work offline and on-line.

But a feeling of doubt soon arises. Without noticing, his voice becomes more hesitant and his shoulders start to slump.

Perhaps my expensive management accountants are spending too much time writing spreadsheets, simply churning out information rather than generating for real insight? Maybe there is costly duplication in that the person sitting in the next cubicle is producing a spreadsheet that does a similar job? There is also the problem that the

quality of information coming out is only as good as what is going in, but is there ever a fool proof way to get data integrity in a spreadsheet environment? Apparently, those employee names came from Sunny's secretary. How can I free up the time of the business partners to be more intelligent about what they are doing by finding out what information the business needs, why and when. And checking if the formulae and macros are working correctly? He takes out a blank piece of paper and draws up a table of the pros and cons of spreadsheets.

| Pros | Cons |
|---|---|
| | |
| **Responsive** | **Risks and deficiencies** |
| Flexible | Too easy to create errors. |
| Quick to alter/amend | Difficult to spot errors. |
| Easy to manipulate | Version control. |
| | Quality control can be poor. |
| **Acquisition/Training** | Potential for 'more than one truth'. |
| | Expensive to correct. |
| No programming knowledge required | Errors can be far reaching and widespread. |
| Common knowledge – readily available software | Garbage in, Garbage out. |
| Cheap (licensing cost) | |
| Cost effective – only | **Not cost effective** |
| | |
| | Duplication of work (reinventing the wheel) |
| **Functionality** | No standardisation between users |
| Easy data presentation/manipulation. | One person at a time. |
| More capability than most users require | Waste (too easily discarded). |
| | Time consuming |
| | Scale limitations. |
| | |
| | |
| **Communication** | **Communication** |
| Interfaces with ERP and office standard applications. | Can be too big and complex |
| Offline work and on-line | Reporting to non-IT experts |
| Common software | |
| | |
| | |
| **Users** | |
| Easily understood | Create their own reality |
| | Inter designer continuity and transferability between hardware platforms |
| | |
| | |

| Pros | Cons |
|---|---|
| Require little training | Work duplication |
| Everyone knows spreadsheets | GIGO |
| Can be linked with ERP | |
| Easy communication | |
| Standard, cheap software | |
| | |

In the next edition of Insight we will look at how Bill investigates his spreadsheet problem further and suggest some ways in which top companies are thinking about end user computing. In the meantime, the research team at Loughborough would like to hear about your spreadsheet stories and solutions. All responses will be treated in the strictest confidence.

ssc-research-team@lboro.ac.uk