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RISKS AND COSTS

Does Outsourcing Work?

There have been a number of recent studies that are ambivalent about whether outsourcing contracts have really yielded the commonly quoted '10% savings' that have usually accompanied their announcements.

Some of the difficulties that I see in assessing the success of outsourcing contracts is that

- (a) Cost reduction is seldom the only motivation (or even the most important motivation) for an outsourcing contract.
- (b) We seldom have a good handle on the real cost picture before the outsourcing takes place, and even less about the costs that would have occurred in the absence of the contract.

In Singapore, on my recent visit, I talked about issues in contracting with staff of CPG-FM, a large facility management company that operates in Singapore, East Asia, China and the Pacific and with AMEC, an FM company that had been very successful in establishing performance-based contracts for large banking chains in the UK but that was having difficulties in replicating its success with infrastructure companies in Singapore. The reasons for both success and failure may be that risk management is a bigger driver of outsourcing than cost reduction.

See pages 803 to 805 " Outsourcing—Why do we do it?"

A few days later I had the opportunity to speak with a group of senior utility asset managers in London, which reinforced the message for me that what decision-makers SAY they want, isn't necessarily what they DO want. We need to track down the real motivations if we are to be successful in 'selling' asset management.

See back page, 806 "Selling Asset Management Outcomes"

But first, a short introduction to an interesting study showing how attention to managing risk can reduce overall costs.

See pages 800 to 802 "Risk Based Analysis of Footpath Faults"

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Risk Based Analysis of Footpath Faults. Priority for Repair 2004/2005—2005/2006

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Executive Summary

In January 2004 Council undertook a data collection exercise to locate all footpath faults in the City of Salisbury. The survey discovered 50,760 faults broken down into 370 missing concrete slabs, 1809 missing pavers, 3248 severe cracks, 125 instances of subsidence and 45,208 height differentials.

An analysis was subsequently undertaken of these footpath faults with the aim of creating a proactive risk based repair program. This analysis has included an allocation of a risk factor to each fault from 1 to 100 which has been calculated using the following criteria:

Land Use: proximity of the footpath fault to critical land use types

Age distribution of population: proximity of the fault in relation to the density of persons over 50 years old.

Location of bus stops: proximity of the fault to bus stops.

Road Hierarchy: proximity of the fault to high traffic volumes.

Fault Type: weighting based on the type of footpath fault.

During this risk analysis it became evident that the majority of the faults did not pose a significant risk to the public due to their height, for this reason 38,431 faults were withdrawn from the analysis leaving the remaining 12,329 to be scheduled for repair.

Using this calculated risk rating a program of repair is proposed for the 2004/2005 and 2005/2006 financial years. This program recommends the allocation of funds with the budget for repairs undertaken by Contractor's dedicated to undertaking works based on the risk ranking whilst those funds allocated using Council's own resources being used for undertaking urgent reactive repairs. The effect of this will reduce the maximum footpath risk rating from a 2003/2004 figure of 99 to a 2004/2005 figure of 47 and a 2005/2006 figure of 34. This program will involve a total of 5,115 faults being repaired in 2004/2005 and 5,448 faults being repaired in 2005/2006.

It is recommended that the program be held valid for a two year period only with a complete resurvey of the network being undertaken in January 2006. This second survey will allow the 'growth' of footpath faults over a period of time to be studied and hence an annual maintenance expenditure to be derived.

A complete copy of this report—with clear descriptions of each step in 'do-it-yourself' detail—is available on the www.amqi.com website. Go to Resource Library and type in "Footpaths" or "Risk"

Excerpt from Report 1.

Testing the model

This model for calculating the relative risk for each footpath fault is relatively complex, particularly if it is compared to a simple worst first model. In order to have faith in this analysis some form of testing is required. One such test is to compare reports to Council by the public of footpaths faults against the calculated risk ranking for that area as identified by those faults that are still located in that vicinity. It could therefore be expected that because an area has been reported by the public for footpath faults, this same area would be more likely to be frequented by the public than an area that has not been reported by the public. The relative risk could also be interpreted as relating to the number of reports issued by the public for the same area over an extended period of time. Council has records of 2295 public enquires dating back to 1997 directly relating to footpath faults. Fig 8 is a plot of the overall risk rating minus that component attributable to the fault type, normalized to a score between 1 and 100 against the number of faults that have been reported by the public for that location between 1997 and 2004.

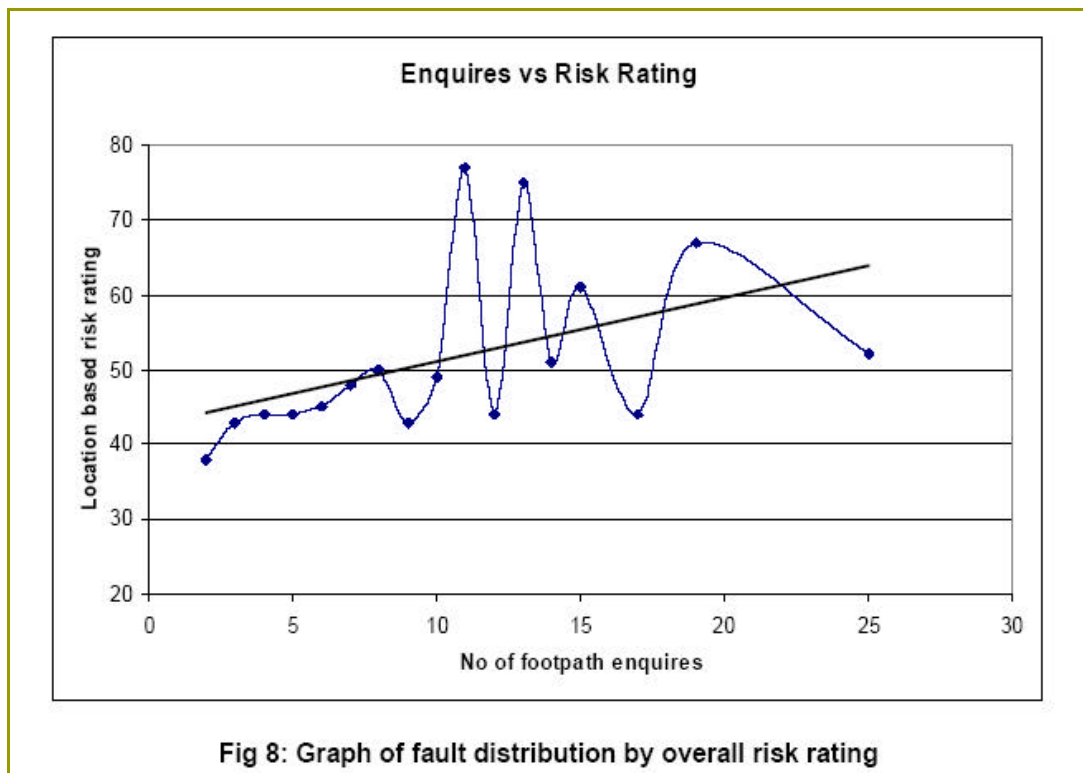


Fig 8: Graph of fault distribution by overall risk rating

Analysis of this graph indicates that there is a general relationship between the location based component of the risk rating and the number of enquires received from the public for that particular location. This can be seen from the trend line which has been laid over the curve i.e. those locations that have a lower reporting rate by the public generally have a lower risk rating than those that have a higher reporting rate. Further investigation reveals that aberrations between the trend line and the curve are due to the model placing a higher rating on the type of pedestrian rather than the volume of pedestrians, whereas, the volume of pedestrians would seem to relate more closely to the number of reports i.e. the model places more emphasis on land use associated with retired and aged accommodation with a high percentage of frail people than on supermarkets with a high volume of pedestrian traffic. It is considered that this assumption in the model is consistent with good risk management practice however, since it takes account of the potential severity of injuries incurred by people more at risk.

Excerpt from Report 2.

Data Collection Methodology

At an early stage it was considered that the spatial (location) attributes of the condition information was important. It subsequently became clear in the analysis of the collected data that the spatial attributes were imperative to the success of the project. A Global Positioning System (GPS) was selected as the tool for collecting the spatial data at the same time as the textural condition data. A practical means of conveyance of the person undertaking the condition rating and the GPS became the next challenge. This conveyance would need to satisfy the following criteria: speed, allow the raters to have an unobstructed and up close view of the fault being rated, due to the size of the Council be able to cover relatively large distances, permit transit over obstructions (including kerbs) and be driven on a conventional car license.

The equipment subsequently selected for the project comprised two 50cc Yamaha Jog Scooters each fitted with a Trimble XRS (GPS) and TCS data logger. The data logger was positioned on a bracket attached to the handlebars of the scooter in an easy to access position with the main GPS unit secured in a storage compartment under the seat together with the batteries. The GPS antennae was located in front of the rider and above the front wheel, the purpose of this being that the location logged via the GPS is recorded at the antennae position and the closer this is to the location the rider is rating the more accurate the spatial data. Accordingly the rider was directed to place the front wheel over the height differential being recorded on the data logger, both of which were in easy view. The GPS was subscribed to the premium Omnistar differential correction service for the purpose of maintaining sub metre spatial accuracy.

Two students studying Civil Engineering Degrees at The University of South Australia were selected to undertake the data collection phase of this project and were trained in data collection techniques and use of the equipment by Council staff. Data collection for this project commenced on 8/1/04 and was completed on 10/2/04 and involved a total of 45 person days at a total cost of \$7,470 excluding capital purchases which will be used by Council in other data collection projects.

The data collectors were instructed to travel at a speed not exceeding 10km/hr on footpaths for the purpose of safety and to also ensure that faults would not be overlooked.

The Trimble data logger allows a data dictionary to be created which contains rules to prevent the entry of erroneous data. In creating a data dictionary which ultimately dictates the level of detail to which data is collected, information on the type of fault, type of footpath surface and height differential was considered necessary for the purpose of subsequent analysis of the fault data.

Long time readers of SAM may recall that Stephen Walker won an award in the First of the Asset Management Competitions when he was with West Torrens Council for "The Satellite Bike" when, back in 1996 he initiated data collection for the council using a GPS system mounted on a mountain bike. The Yamaha Jog Scooters are no doubt a 2004 technological upgrade.

Find out more about this report, and how you can conduct your own footpath risk survey and prioritise maintenance to reduce council's risk exposure from www.amqi.com - Resource Library—keywords "Footpaths" or "Risk"

Outsourcing – Why do we do it?

In Singapore I caught up with Leng Yian Chua who had studied at the University of South Australia and is now with the Facility Management Company, CPG-FM, and Keith Gawthorn, General Manager of AMEC. I had met with both of them on my last visit to Singapore when CPG had just won a large contract to manage a wing of the Changi Airport. I was interested to see what had happened since my last visit around the time of the SARS epidemic and it was natural that our conversation should turn to contracts, during the course of which I thought about why we contract out; why we say we do; and whether they were really the same?

Reason 1.

Contracting to Reduce the Risk of Mismatched Revenues and Expenditures Flows

Example: Contracting Out for Hotels in a Post-SARS Epidemic Climate

*The following is an edited version of a short discussion paper by
A Rashid and Chua, Leng Yian, CPG-FM*

Outsourcing in the Singapore hotel industry is not new. It has been tried in many famous hotels, however its scope, until recently, was usually confined to employing contractors in areas such as cleaning, stewarding, laundry and a few engineering repair contracts. For the most part, engineering works such as maintenance, upgrading of equipment and major building works is carried out in-house and the operations budget has been a major cost item for all hotels.

The recent SARS outbreak which led to major reductions in revenue for the hotel trade and resulted in significant staff layoffs just to enable hotels to remain solvent led to a rethink about the best way to operate in order to manage potentially fluctuating revenue streams. .

Outsourcing engineering works and housekeeping activities has the potential to yield a better match of income and expenditure for hotels where the outsourcing contractor has the capability of moving resources from other sectors into the hotel sector in times of high demand and moving them out in times of low demand. This can also lead to more secure employment for staff.

Where the outsourcing company has many diverse contracts, it can call on specialist assistance when needed, rather than maintain under-utilised in-house personnel. Contracting staff members are encouraged to become multi-skilled, which again increases employment security.

The success of outsourcing hotel operations lies in detailed attention being paid to the hotel's goals, objectives and culture – and having good training programs in place to ensure that the hotel's requirements are met. This is particularly important for handling the outsourcing of house-keeping staff who are in daily contact with customers. Sub-contracting rarely works because the lower wages obtained are matched by even lower morale and productivity. A serious outsourcing contractor will take training very seriously. Not only once off, but continuous training. In most cases the contractor's staff will be encouraged to undertake cross training and to become multi-skilled.

Keys to success include:

- Thorough understanding of the hotel's objectives and culture
- Preparation of the hotel staff prior to the changeover
- Establish benchmarks for operations so that both contractor and client are clear on what is expected
- And for the hotel trade, it is important that the cost contract be flexible so that it is able to match seasonal as well as unexpected revenue variations such as imposed by the SARS epidemic.

These will generate a win-win arrangement between hotel and contractor.

Example : Renewal, Upgrade and Maintenance of School Buildings

Matching of income and expenditure flows is not only important for the private sector. Government departments face a situation of (reasonably) constant cash flows from taxation and find it difficult to cope with the periodically lumpy expenditure patterns of renewal and upgrade for infrastructure. The desire to better match cash flows has been one of the driving reasons why the outsourcing of school renewal, upgrade and maintenance is now spreading widely from Glasgow in Scotland, to New South Wales in Australia and further.

What is being compared?

Funding large upfront costs when payments are based on even annual flows requires the private outsourcer to borrow money – and this costs. These costs need to be taken into any accounting of whether the contract has 'worked'. Since the borrowing costs were generally not clearly accounted for before the contract, the apparent result is often that the contract has 'caused' the costs to rise, whereas it has just caused them to become visible. .

The Singapore Hotel Industry may also pay a premium for the cash flow matching services provided by the contractor – the true test of whether the contracts work or not is whether the hotels stay in business!

Reason 2.

To improve performance outcomes

Keith Gawthorn spoke about the facility management performance based contracts that his company, AMEC, had developed for the Nat West and Abbey National banking chains in the UK.

The contracts were based on making improvements from an agreed cost line. The banks had good maintenance histories and a good understanding of what was driving future costs. Cost trend lines were established based on these past histories, expected utilisation factors and the age of the assets (assets over 20 years in age were expected to require accelerated maintenance over the next five years). They initially included location as a factor because they thought that costs would vary with whether the bank was located in a metropolitan or rural area but tests showed the actual differences to be immaterial.

Profit based on Performance Only

Payment on the contract was based on paying the contractor the actual cost of any work that might be necessary, plus an administration allowance necessary for getting the job done, *but without any profit element built in at all.*

Actual profits were based on a 50/50 share of the difference between the cost trend line established on previous practices and the actual maintenance payouts – subject to successful achievement of performance objectives.

The performance criteria were firmly based on CORPORATE objectives, not sub-corporate objectives – this keeps everyone's eye fixed on the ball and stops the jostling for position that often occurs when performance criteria are established for sub units such as cleaning, maintenance, security, etc.

Penalties were not included – they had been found not to work, to cause friction – and did not motivate as well as a share of the profits.

NO Maintenance! – unless strictly necessary

The basic aim is to avoid unnecessary maintenance. Routine maintenance was found to create more problems than it solved, causing damage. So the first rule they established was no maintenance UNLESS it is needed for regulation OR to achieve corporate objectives.

(If a key jams in the lock and customers can't get into the bank, that impacts corporate objectives.—it is essential maintenance and it is done. However, routinely shutting down the escalators for maintenance at set intervals not only disrupts bank traffic but it frequently causes damage of itself—condition monitoring, eg with condition vibration, is more effective in this case.)

*In the first year costs fell 20% ---
and they kept on falling for the entire contract period!*

*Yet it has been hard to sell this system to other facility and infrastructure managers in Singapore.
Why?*

The banks loved this but it has been hard to get non-financial agencies to buy into this in Singapore. Why?

Are other facility managers not as interested in bottom line results? Well, this could be. Cost reductions for the banks translate directly into increased shareholder value – the PRIME outcome desired by the banks. At the time, banks did not see that their facilities directly impacted social or environmental issues. (This led to major rural bank branch closures in Australia, which are now starting to be reversed as banks realise that the social impacts of branch closures are damaging their business.)

But the more likely reason is that decision makers in non-banking institutions do not have such clear cut bottom lines and they do not feel as confident in defining their corporate service objectives as the banks did. In other words, for them the risks are greater.

End Note:

Selling Asset Management OUTCOMES

In London I had dinner with about 20 or so very enthusiastic utility asset managers, members of the Institute of Asset Management. We had wine and dined well, it was now 9 pm and it had been a heavy day for all of us, so what was I going to talk about that would capture everyone's imagination? As it happened the decision was made for me. They wanted to talk about how to influence politicians. Politicians often say they are interested in Cost Reductions—but at bottom, I doubt that any of them really are. They just think it is incumbent upon them to say so! But outcomes are another matter. I gave two examples. .

Convincing the SA Parliamentary Public Accounts Committee to take up a research study on Asset Management—and the Treasury to act upon the results

With the politicians who comprised the South Australian Public Accounts Committee, I pointed out that the way the accounts had been kept meant that they, nor anyone else, knew whether future asset renewal would occur in an even stream or whether renewal requirements would occur in a major lump that would be impossible to deal with. You might say I played the 'risk and uncertainty' card, but my view would be that the idea was new and intrigued them. Also, this followed a discussion on whether the Committee had been particularly effective, so I guess they felt on wood to take on a challenge that would make a difference. However the major question they asked was: If it should turn out that there is a major renewal problem, is there anything we can do about it? When I assured them that there were many things that could be done to improve the situation, they happily took on the challenge. They wanted to produce a positive, action-oriented report; they wanted to show they were effective, that they made a difference! That was the outcome they desired.

When the results came out, the most telling statement that we made was that 'if nothing is changed, if we continue to retain all the assets we have now, whether we need them or not, if we continue to use the same inefficient maintenance and renewal practices, etc, then—within 15 years or less—the demands for renewal of ageing assets would be so great that there would be *nothing left over for new works*. That latter assertion turned out to be the deciding factor; everyone liked the fun of creating new works, so 'we had better get our asset management house in order to enable us to continue doing it!' Again, the reduced costs themselves were not important—but rather the consequences; the outcomes.

Asset Management in Malaysia

Last year I had the opportunity to speak with Prime Minister Abdullah Badawi of Malaysia (he was then Deputy Prime Minister). I had read as many of the DPM's speeches as I could find—there were surprisingly few! - to find out what motivated him. I concluded that he was an honourable man who, having agreed to continue Mathadir's 2020 Vision for the country, would do so. But I figured that any leader wants to make his own mark on his country, if not his region, and not simply be a pale carbon copy of his predecessor, so I made him a suggestion that would enable him to keep faith with the Vision but to make his own advance. I suggested a world in which asset management principles dominated asset decisions in Malaysia, thus preserving their good quality infrastructure, taking advantage of the high level of education in the country and improving urban governance and environmental sustainability (both key points with him). I pointed out that because of the stability of his government he could take the long term view and become the asset management leader in Asia. His response—after digesting what I had said—was that he would 'fully support it'. There is still a long hard road for Malaysia but one hurdle has been cleared. By focussing on desired outcomes, it is possible to sell a vision. (Minimising life cycle costs is part of the task but it is not likely to seize anyone's imagination as an outcome in its own right.)