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Newsletter

Services Management—Type 1 & Type 2 errors

The science of statistics recognises two main types of errors which can generally be explained as:

- **Type 1 errors**: accepting something as right when it is not (the false positive), and

- **Type 2 errors**: rejecting something as wrong when it is actually right (the false negative).

We see countless examples of the above in the business world – some more serious than others. For example, the sub-prime "meltdown" that occurred in the US last year and early this year is a classic example of a Type 1 error – people thinking that everything was OK when in fact the underlying proposition was seriously flawed.

In IT services we see these errors all the time. Whenever we have carried out research with an organisation's customers we have always found examples of:

- **Type 1 errors**: the organisation considers a service to be of value to the customer and therefore commits resources to the development and provision of that service – but the customer does not perceive the same value; and

- **Type 2 errors**: the organisation does not perceive a service to be of value and therefore either does not provide it or provides it only to a very limited extent – but the customer does perceive this service to be of value.

Which of the above is more strategically damaging? In our experience it is the Type 2 error as that is the one that will eventually push the customer to look for alternative sources of supply. It is also, usually, the one that is harder to determine as these are the services that are often expected but not demanded.

An example of this is an IT outsourcing client signing with a service provider because of their perceived depth of technical research and expecting some of the findings from that research to be provided to the customers as knowledge. When that does not happen, or only happens in a lacklustre manner, then the service provider has committed a Type 2 error.
Researching your customers' perceptions of service value on a regular basis (perceptions of value change over time) will help you to identify your Type 1 and Type 2 errors and allow you to re-align your resource usage. However, the use of ill-conceived questionnaires (an attempt at quantitative research to provide statistical numbers) can do more harm than good – we have seen too many of these return large volumes of Type 1 errors because the questionnaires were biased towards the organisation's preferred mode of working. Using impartial analysts to undertake qualitative research provides a richer and more accurate picture of your customers' perceptions of value.

Charles Handy elaborating on these errors in his book "Waiting for the Mountain to Move" said that he was taught in Business School that Type 1 errors mean "getting it wrong" and Type 2 errors "mean not getting it right enough – missing the opportunities". These explanations have real relevance in the field of software design.

How many times have requirements specifications been left to business managers with little or no strategic or analytical training or experience? The results are usually requirements that address Type 1 errors but in doing so often result in Type 2 errors – missed opportunities for functionality that goes beyond the business manager's often limited system design awareness.

In This Issue . . .

Information Technology—two words not one

When most people talk about the computer industry today, they refer to this field as Information Technology, or IT for short. This term covers everything from mainframe computers to PCs, from local area networks, software, applications, the Internet, etc.

Unfortunately there is a tendency for IT professionals to consider IT as exactly that. In other words, they consider that IT is a single term rather than consider that it is made up to two very important items – Information *and* Technology. Most importantly, the management of each is very different.

The management of the technology encompasses such areas as availability, capacity planning, change management, performance, monitoring and the like. Many of the services provided in IT for the management of the technology today are considered commodities, i.e. they can be provided by any number of reasonably competent people, are widely available and with few exceptions cannot command a premium price for the delivery of the service. In many cases the actual service delivery is provided automatically, e.g. network monitoring, with human intervention only required when the automated system highlights an exception which cannot be resolved any other way.

Its these services which are commonly outsourced, as they can be provided cheaper by IT outsourcing suppliers who specialise in their automated delivery. With automation, they can achieve economies of scale by spreading that automation across a large number of organisations.

At the same time, it disadvantages those IT suppliers who either don't or cannot provide an automated / low cost technology management service. Such organisations are those who have traditionally provided non- or low-automation of the services, with a much higher level of usage of personnel. This approach has meant a high cost overhead in the service provision, one which is not easily dismantled. Some IT suppliers have been able to modify their service provision internally, albeit at some cost. Others however, have not taken the hard decisions to change the method of service provision, and have opted instead to replace more costly personnel providing the service in Australia with less costly personnel offshore, notably India.

This offshore outsourcing solution can only be a temporary one however, as they will still not be able to achieve the same levels of scale economy as their more agile competitors. In a few years the offshore personnel costs will be much higher, and they will be back where they are today in terms of high cost overheads.

Management of the Information, however has a completely different focus from that of the technology. Information is essential in every organisation, and the lifeblood of non-manufacturing organisations. In many organisations, it comprises the products and services they offer to the market place. Yet, organisations seem to spend far more money on the management of the technology than they do on the management of the information.

Management of an organisation's information is more than just gathering and storing information. Good information management requires an organisation to firstly identify just what information it requires to support its business plans. Information management also dictates that the organisation has a top-down view of those information requirements, and then has an integrated solution to the efficient and effective management of that information. Most importantly, the information needs to be organised and managed in such a way that it is not only captured once and in one place (the concept of normalisation), but also that it can be retrieved by management in a timely and meaningful manner.

At the recent Australian Institute of Company Directors (AICD) conference in Cairns, a speaker discussed the concept of granularity in terms of dissecting the organisation's information into very small clusters, and then analysing it in comparison to other clusters. This concept is very worthwhile, however if the parameters for this granularity or clustering haven't been identified AND the information captured in such a way as to be able to analyse it according to the required parameters, then it's all just a nice theory.

Unfortunately, we have seen numerous instances where organisational information has been gathered in a bottom-up, disintegrated fashion. The same information is captured by several, stovepipe systems, typically written in different languages and using different database management systems. Various interfaces have been built to exchange information between these systems, and the maintenance of these interfaces is almost as large as that of the systems themselves. The record for information duplication that we have seen (the winner must remain anonymous for obvious reasons) was an organisation who had over fifty systems to capture customer information.

Another important aspect of Information Management is that, just as Technology Management services are typically outsourced, Information Management services are typically kept in-house. Maintaining the distinction between the two is essential, and with some services, the distinction becomes blurred, e.g. Database administration. The simple test is to see where the management focus of the service lies, with the technology or the information.

Some organisations clearly delineate between management of the information and management of the technology. They have both a Chief Information Officer and a Chief Technology Officer, the department responsible for information technology has a title clearly identifying the dual role e.g. Information Management and Technology (IM&T), and there are clear policies dealing with the management of both information and technology.

Keeping your projects going

During this current economic downturn we have all heard of the measures undertaken by organisations to control costs so that they can weather this economic storm. One of the more popular measures is to reduce headcount either actively through redundancies or passively by not replacing people who leave.

Unfortunately economic downturns don't care if your organisation is part way through a major project and headcount reductions leave you with limited resources to complete the project. You only need one business abnormality during times like these to result in a project timeline left in tatters as fewer available resources attend to more immediate issues. The danger is that the longer the project is left 'suspended" the more likely it is that it will become one of the project management statistics – an unfinished or abandoned project.

The cost of unfinished projects is not just the direct costs foregone. Depending on the project deliverables it can include indirect costs such as:

- Deterioration of market share;
- Customer dissatisfaction;
- Low staff morale;
- Maintenance costs for legacy systems;
- Labour costs incurred in the perpetuation of inefficient processes;
- Etc – the list is long and we are sure that you can find your own indirect costs of delayed or suspended projects.

However, even if the project cannot proceed at the pace originally intended, if it can be kept "ticking over" during those times when resources are diverted to other activities, then it is much easier to pick up the threads and continue on to complete a successful project.

BUT – you have a headcount freeze and are not allowed to hire contractors even for a 3 month contract! What you really need are highly qualified, experienced professionals to come in for short periods (days not weeks) and help you in such areas as:

- Writing reports – your staff know what needs to go into the report but don't have the time to write them;
- Writing user requirements specifications – again your staff know what is needed but don't have the time or the experience to write these to the standard that a developer can start to develop from them,
- Business analysis – this can take longer than most people think and is something that often gets overlooked as most managers and staff just cannot find the days or sometimes weeks to research the problem and come up with viable solutions.

We can help you with this. We have a small team of highly qualified professionals that can come in and work with your staff for as little as one day or as long as required to help them meet their deadlines and keep the project moving. We don't need monthly contracts and we can tell you, based upon our considerable experience in this field, how long it would take to get a job done. If you are struggling to meet deadlines and just need a helping hand for a short period of time give us a call (our contact details are below)– we may be able to help.

About us

Over the last 25 years we have been working with numerous organisations in a variety of industries, particularly banking, finance, mortgage broking and insurance, as well as mining & manufacturing. At the strategic, tactical and operational levels we have carried out a wide range of assignments with the top management & boards of organisations in Australia & New Zealand, as well as throughout Asia and the US.

Typical assignments have been in the areas of strategic planning, services management (including SLAs), outsourcing (for both organizations and IT vendors), project management and information technology. The assignment may be a simple review of existing strategy, structure and systems, an investigation of a specific problem (e.g. a project that appears to be in trouble), or could be pre-litigation forensic analysis of a failed project.

Our review & advisory assignments usually take no more than two to three weeks, and the primary outcome of the assignment is a report detailing the results of our review with a series of recommendations for resolving the situation at hand and / or recommendations for further action.

If you would like to find out more about our services, don't hesitate to contact us on any of the contacts below.

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Comments / Feedback

This newsletter is being sent to you as part of our commitment to keep you informed of the on-going trends in the marketplace, particularly with respect to strategic planning, organisational reviews, IT outsourcing, services management or project management. We would appreciate your comments and / or feedback as to whether this newsletter is of interest, and whether you would like to be kept informed about future developments and trends in IT. Send your email to: information@farrell-associates.com.au

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Farrell & Associates Pty Limited
PO Box 6008
North Sydney NSW 2059
Tel: (02) 8920-2462
Fax: (02) 9460.2519
Email: information@farrell-associates.com.au
Internet: http://www.farrell-associates.com.au