

## TOTAL METRICS WWW NEWSLETTER JANUARY 1999

I hope that you all have enjoyed a break over the New Year period. Although metrics activities tend to slow over the festive season, we still are able to bring you some news in this issue.

We cover the imminent release of the new IFPUG Counting Practices Manual. According to our sources within IFPUG, the counting practices group is still on track for releasing the next version 4.1 of the CPM, at the end of this month.

We also review a recent presentation to the Australian Software Metrics Association by Neil Fraser, a Senior Manager with Deloitte Consulting, on the benefits and risks of outsourcing. The paper is based on the results of a survey of 120 Australian companies carried out in 1997. It presents data, which summarises *what* Information Technology services are being outsourced and *why* the organisation decided to outsource in the first place. It identifies the benefits realised by the decision to outsource and the difficulties encountered with the different outsourcing arrangements. If your organisation is currently involved in an outsourcing arrangement or looking at adopting an outsourcing strategy in the future, then I am sure you will find it interesting reading.

Pam Morris  
Editor

### CONFERENCES

#### **Applications of Software Measurement (ASM Metrics 99) San Jose, California, USA February 15 – 19 1999.**

This conference promises to be one of the most exciting conferences billed in 1999 for the software metrics industry. Its line-up of presenters is outstanding and includes such metrics industry gurus as - Steve O'Connell, Tom DeMarco, Bob Grady, Norman Fenton, David Card and David Herron.

Steve O'Connell, the well-known author on the topic of software development strategies, will be presenting a paper on optimising software project survival.

Bob Grady, recently retired from Hewlett Packard, will be presenting a paper on a similar topic, which provides insights into how metrics can assist in successful project management.

Norman Fenton will share his ideas on the reasons why software metrics programs fail and proposes that one of the reasons may be their poor predictive power. Fenton will present ways to overcome this limitation, using causal models, including Bayesian Belief Nets.

David Herron has been a key figure within IFPUG for many years and is co-author of the popular text on Functional Size Measurement. Herron has distilled his years as a consultant to

come up with 'six habits of a highly effective software measurement consultant'. Herron has promised a humorous account based on real-life experiences.

The conference includes presentations from 9 international metrics experts and 18 in-depth classroom style tutorials, in addition to two days of concurrent sessions featuring management and measurement strategies and experiences from the worlds leading software organisations.

You can register directly for the ASM Metrics 99 conference at <http://www.sqe.com> or send an e-mail to: [sqeinfo@sqe.com](mailto:sqeinfo@sqe.com).

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## **IFPUG – Function Point Counting (CPC) Update**

The new release of the Counting Practices Manual is still planned to be released later this month. The CPC met in Atlanta from December 12<sup>th</sup> to 16<sup>th</sup> to put the final touches on the 4.1 version. For those organisations who currently follow version 4.0 and plan to adopt version 4.1, there is an appendix in the back of the new manual which provides guidance on the differences between the two versions of the manual and the organisational tasks and activities required to convert between versions. The Counting Practices Committee is planning to run workshops at the New Orleans meeting in April 1999 to assist members in understanding and adopting the changes. If you are interested in attending one of these workshops, contact IFPUG on <http://www.ifpug.org>.

Total Metrics will also be running a series these '*Moving from CPM 4.0 to 4.1*' workshops in Australia in the first quarter of 1999, in Melbourne, Canberra and Sydney. . These workshops will cover changes in all the counting rules and exercise examples on the differences between 4.0 and 4.1. Pam Morris who has been a member of the IFPUG Counting Practices Committee since 1992 will be the presenter. As a CPC member she has actively contributed to the development and review of both CPM releases - 4.0 and 4.1. If your are interested in attending the Total Metrics workshops please register via: [Training@Totalmetrics.com](mailto:Training@Totalmetrics.com)

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## **NEWS AROUND THE WORLD**

### **ISO/IEC Functional Size Measurement Standard Moves to next stage of Ballot**

On December 24<sup>th</sup> 1998 the International Standards Organisation (ISO/IEC/ JTC 1/ SC 7) distributed the Functional Size Measurement standard – “Compliance Assessment of Software sizing methods to ISO/IEC 14143-1:1998” for international ballot as a final committee draft (FCD). Twenty-five ‘P’ member countries now have the opportunity to review the draft version of the standard and provide their comments to their National Standards Bodies. The ballot closes on the 24<sup>th</sup> of April 1999. The disposition of the comments will be discussed by Working Group 12 (WG12) at the ISO/IEC/ JTC 1/ SC 7 Plenary meeting in Curitiba Brazil May 24<sup>th</sup> - 28<sup>th</sup> 1999. If you would like to find out more about the standards being developed for software metrics and process improvement visit the SC7 web site on [http://saturne.info.uqam.ca/Labo\\_Recherche/Lrgl/sc7/](http://saturne.info.uqam.ca/Labo_Recherche/Lrgl/sc7/) . If you would like more information on the Functional Size Measurement standards contact : the WG12 Convenor, Pam Morris at : Pam.Morris@Totalmetrics.com.

## **Overview on Function Point Analysis – journal article by Capers Jones**

In our November newsletter we mentioned that Capers Jones was to publish an article in the December edition of *Scientific American*. For those who missed obtaining a copy, the article can be read online at the following address:

<http://www.sciam.com/1998/1298issue/1298jones.html>

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## **Presentation**

### **BENEFITS AND RISKS IN OUTSOURCING – INDUSTRY TRENDS**

**By  
Neil Fraser**

**Deloitte and Touche Consulting Group**

(neil\_fraser@deloitte.com.au)

#### **1. INTRODUCTION**

Neil Fraser is based in Brisbane Australia and is a Senior Manager with Deloitte Consulting. Fraser specialises in assisting organisations to successfully negotiate, establish and manage their Information Technology (IT) outsourcing contracts.

He presented the following paper at the Australian Software Metrics Association in December 1998..

The paper is based on an extensive survey conducted by Deloitte Consulting titled "Information Technology Outsourcing Survey - a comprehensive analysis of IT Outsourcing in Australia". Copies of the complete survey, at a price of \$75.00, can be obtained from Ms Gali Head at the Deloitte Consulting office in Melbourne. Gali can be reached on:

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## **2. BACKGROUND**

Outsourcing has become a major process improvement strategy for management to gain better control of their core business. In particular the outsourcing of information technology services has become a major industry worldwide. Most major organisations and many smaller companies have already outsourced significant parts of their information technology service delivery or are actively considering it. Deloitte Consulting conducted a survey of Australian organisations in 1994 and again in 1997. Both surveys investigated *what* was actually being outsourced and *why* organisations were outsourcing. The questionnaire surveyed the practices employed in the outsourcing arrangements and asked the participants to identify the benefits realised and the difficulties encountered. The paper analyses the results of the survey and also looks at a how a structured approach to IT outsourcing can ensure that the expected benefits are realised and that many risks associated with IT outsourcing are minimised.

## **2. OUTSOURCING**

### ***Outsourcing – what is it?***

Outsourcing arrangements between an IT supplier and client typically have the following characteristics:

- A focus on services required not the assets employed
- Long term relationship
- A transfer of assets and resources
- The supplier accepts a degree of risk and assumes some responsibilities

The decision to outsource is usually made as a result of trying to optimise one or more of the following business drivers:

- Be more competitive
- Be more efficient
- Operate at a level of 'best practice'
- Focus on core activities
- Improve customer service
- Reduce costs

### ***Why do organisations outsource?***

Organisations outsource for both *strategic* and *tactical* reasons.

*Strategic* objectives organisations hope to achieve, include:

- **Market place leadership** – outsourcing can assist by providing access to best-practice capabilities in strategic areas such as marketing and product development, leading to the development of best of class applications, minimising time-to-market and accelerating re-engineering activities.
- **World class IT capabilities** – the IT industry is suffering worldwide shortages, many organisations are having difficulties in getting access to world-class IT skills. Forming a strategic partnership with a world leader in IT is a means by which they can develop and extend their IT skills.
- **A focus on core activities** – as competition increases within their core business areas, organisations are finding that they need to focus more on the activities which are necessary to achieve their business objectives and create value for their share holders. Outsourcing IT, which seen as an ancillary service enables them to do this.

*Tactical* objectives organisations hope to achieve, include:

- **Cost Savings** – this tends to be the primary driver for the decision to outsource for many organisations.
- **Improve quality of services and infrastructure**
- **Access to skills**
- **Access to technology**
- **Greater flexibility**

Many organisations reject outsourcing after investigating the risks and benefits. They do so for a variety of reasons, but they find that the exercise of just going through the process of self-assessment brings about the benefits of self-awareness, which gives them greater insight into the link between services, service levels and the costs involved.

The nature of the outsourcing relationship will be different depending on whether an organisation decides to outsource to achieve strategic or tactical objectives. When an organisation outsources for tactical reasons the contracts tend to be only for two to five years and selected functions are outsourced. The main drivers are efficiency and cost and the payment tends to be fee for service and based on a service level agreement. In contrast if the decision is based on

strategic objectives then the drivers tend to be more organisationally based to improve effectiveness and explore new strategies, products or services. The contract incorporates the outsourcing of the full entity or business processes where both the rewards and risks are shared between supplier and client based on business performance metrics. The suppliers are industry or business process specialists who are chosen for their ability to add new 'value' to the organisation.

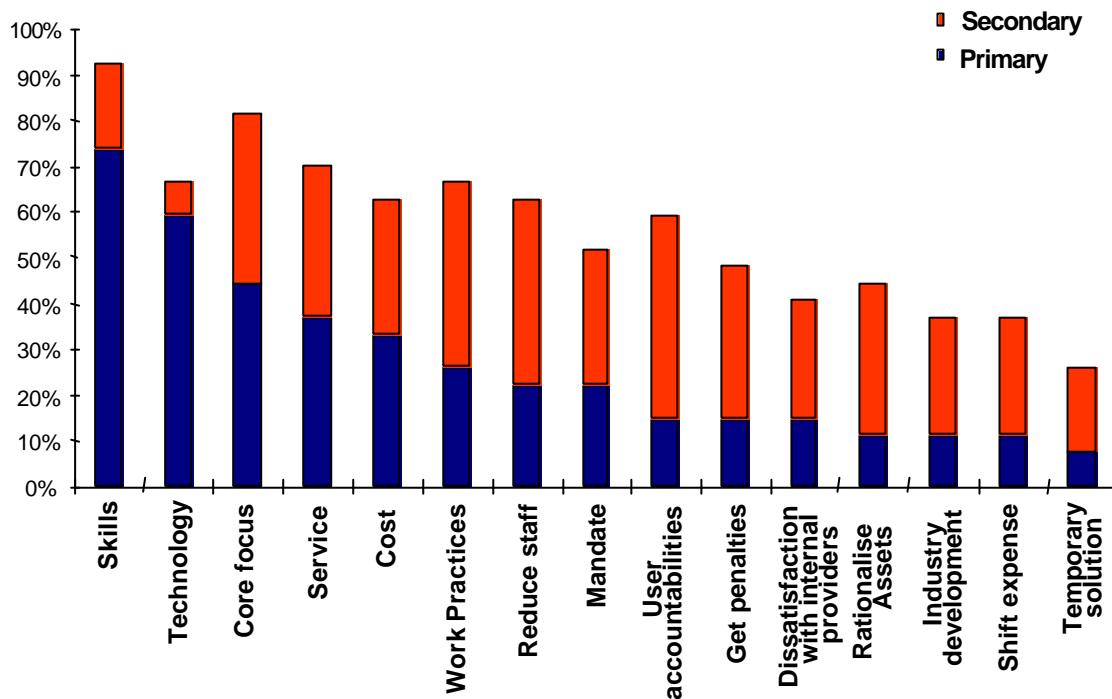
### 3. SURVEY RESULTS

#### *Reasons for Outsourcing*

The following bar chart summarises data collected via the 1997 survey regarding the major (primary and secondary) reasons why the organisations chose to outsource.

**Figure 1**

Source: Deloitte & Touche Consulting Group, - Information Technology Outsourcing Survey - November 1997





In 1997 the top five reasons for outsourcing were:

- Access to skills
- Access to technology
- Focus on core activities
- Improvement to services
- Cost

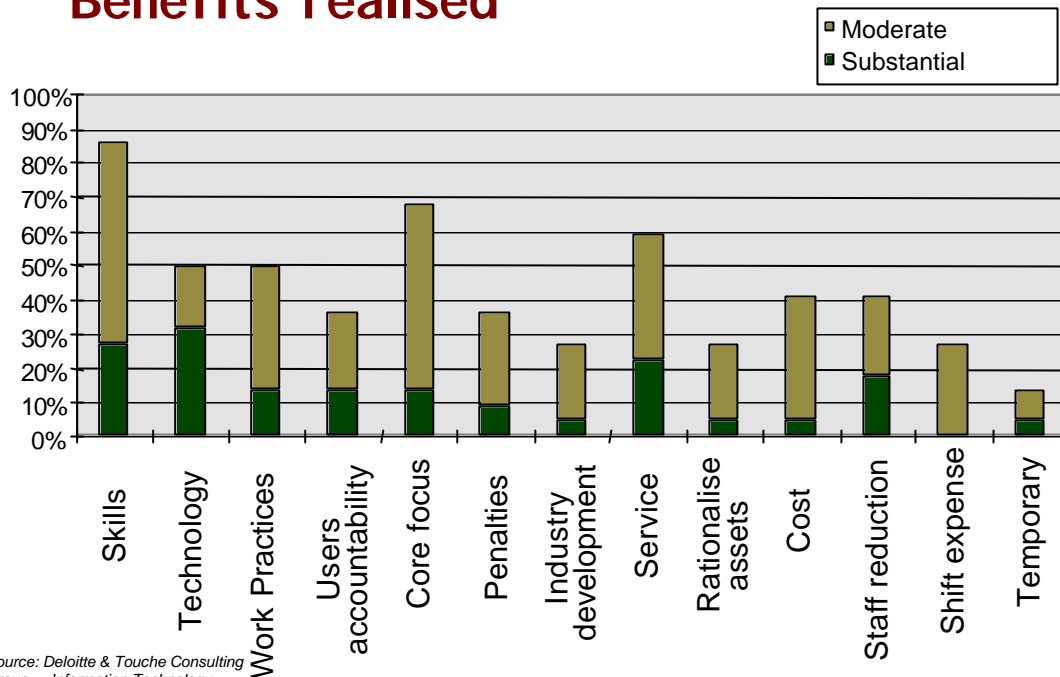
This was a very discernible shift from the primary forces identified in 1994 where improved cost and service rated more highly.

***Were objectives achieved?***

The following bar chart identifies the benefits realised by clients who outsourced.

**Figure 2**

## Benefits realised



Source: Deloitte & Touche Consulting Group, - Information Technology Outsourcing Survey - November, 1997

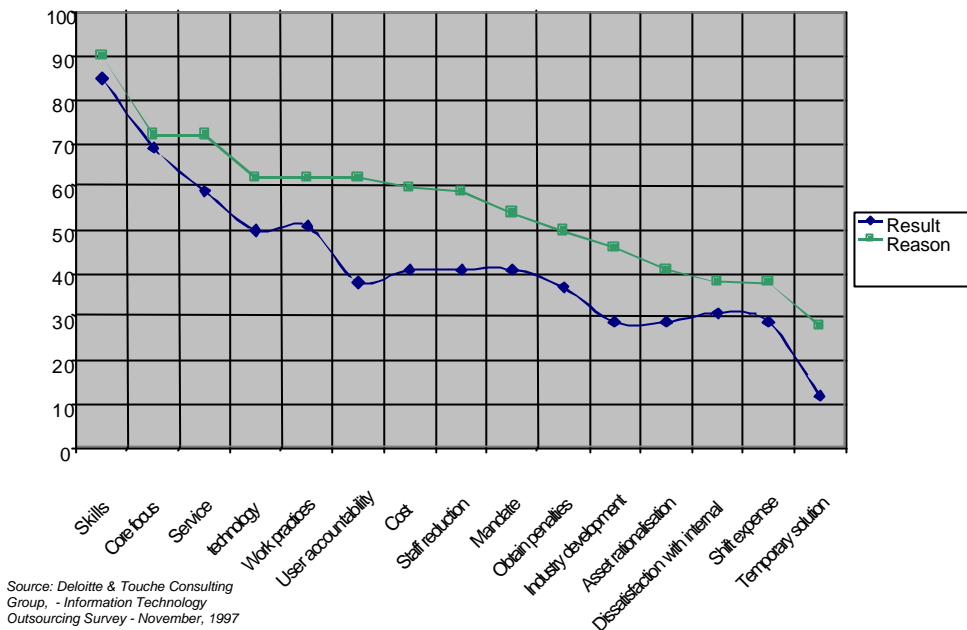
It may be noted that although cost was one of the five main reasons for outsourcing, significant improvement in IT costs were not reported. However in 1997 compared to 1994, nearly four times as many organisations are receiving significant improvements in technology. However the overwhelming service achievements reported in 1994 are no longer being realised with a 13% decline in status as of service achievements as being the primary outcome. Access to better or increased skills has remained strong over the last 3 years when in both surveys, 25% of all organisations reported it as a leading outcome.

Figure 3 reports the primary and secondary drivers and the resultant effects. It demonstrates a strong correlation between improvements sought and results achieved. However the gap shows that many organisations did not receive the benefits they sought. The wider the gap the greater the disappointment. However it is not necessarily outsourcing itself which fails to deliver but rather it is important to investigate whether the organisations themselves had set clear and realistic expectations of the outcome, had clearly identified responsibilities, and had set up appropriate performance measures and effective relationships.

**Figure 3**



## The disappointment gap



### *Were the Customers Satisfied?*

However, despite this “disappointment gap”, most outsourcing customers report overall satisfaction with the outcome of their outsourcing decision. Where organisations have reported some dissatisfaction, reasons have included;

- Inadequate attention to the relationship
- Business objectives were not clearly defined
- Changes occurred to technology or business
- Vendor overselling
- Poor service delivery quality
- Deal did not reflect market pricing
- Supplier was not pro-active

## 4. OBSERVATIONS

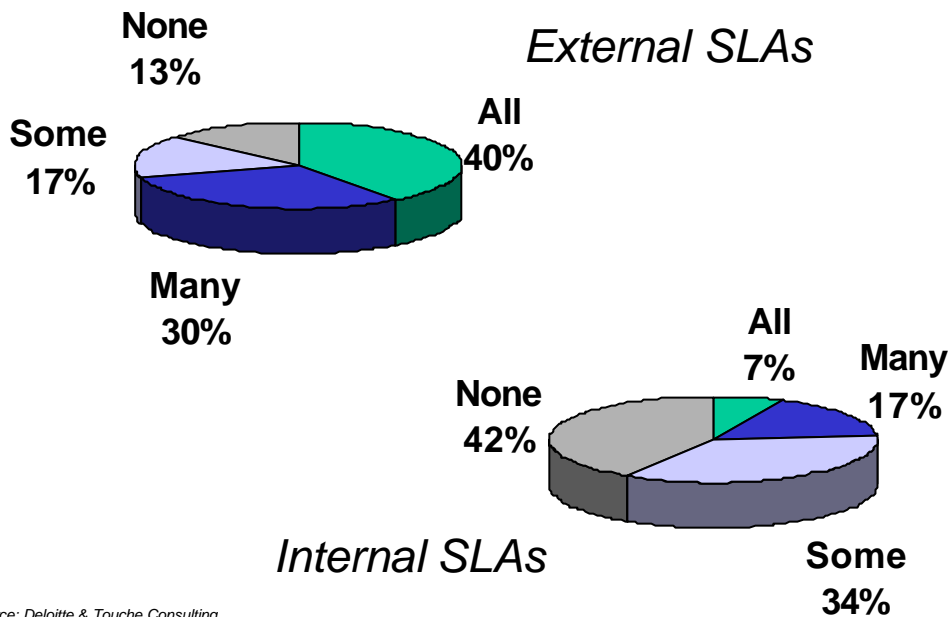
### *Low penetration of Service Level Agreements*

A service level agreement (SLA) defines the responsibilities of the service provider (and often the customer) with respect to the outsourcing arrangement. It specifies the key performance indicators (KPIs) of each service to be delivered and the minimum level of service that the service providers are required to achieve. The establishment of an SLA is considered ‘good’ practice in any service delivery relationship to ensure that the customer is focussed on the requirements and outcomes and that exceptions to their expectations are explicitly identified, mutually agreed and measurable.

Figure 4 shows that only 40% of the organisations had service level agreements which covered all of their services, when using an external supplier. In comparison when the clients used internal suppliers only 7% of them had SLAs which covered all outsourced services.

Figure 4

## Leading practices - SLAs



Source: Deloitte & Touche Consulting Group, - Information Technology Outsourcing Survey - November, 1997

### *Effective Performance Incentives - stick or carrot?*

The most common performance indicators used were benchmarking and monitoring of the inputs to the processes, cost of the service and measurable outcomes. Benchmarking was either in comparison to what was considered to be the industry 'norm' or industry 'best practice'. Benchmarking is considered to be an effective means of externally monitoring supplier efficiency and effectiveness. Linking service levels to penalties and bonuses is another effective technique frequently employed by leading edge organisations. Experience shows that in most relationships, penalties and bonuses encourage desired behaviour. A leading practice in outsourcing contracts is 'gain-sharing' where the supplier gains a dividend or a premium for contributing to the improvement of the client organisation's business. The survey found that the majority (65%) of organisations had contracts which imposed penalties on suppliers for under-performance, in contrast only 25% of organisations had some form of rewards for achieving or exceeding expectations. Experience has shown that establishing a reward system encourages the supplier to optimise their commitment and involvement in the client's processes. One significant point highlighted by the survey was that more public sector organisations used penalties rather than rewards as a method to control the level of service provided by the supplier.

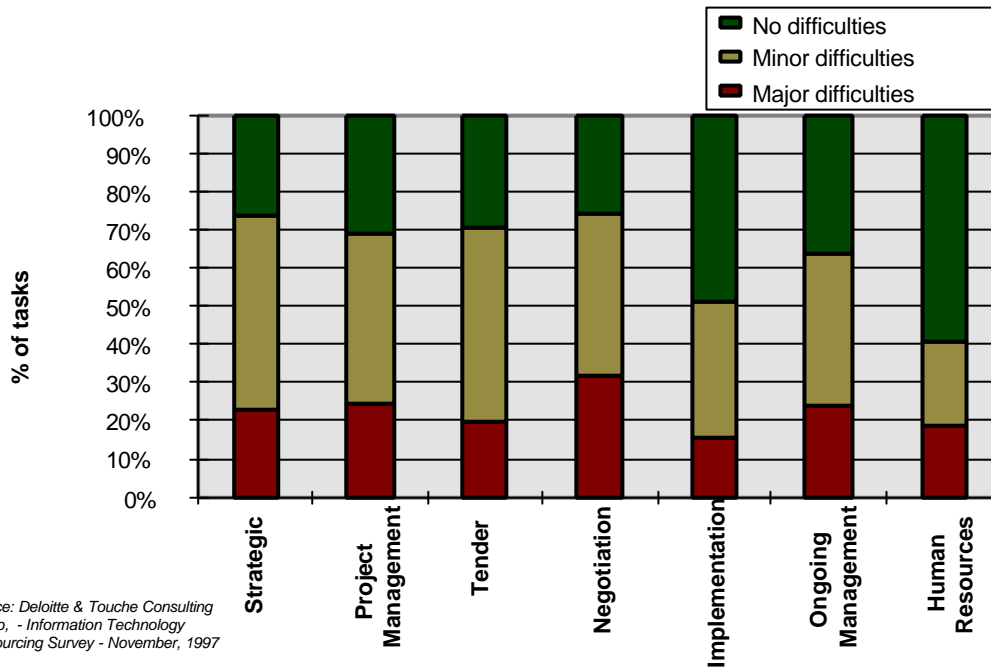
Another interesting outcome from the survey was that the ‘rewards’ for exceeding service expectations were more often invoked than penalties for under-performance.

***What were the pitfalls?***

Organisations responding to the survey identified that, of all the activities involved with implementing an outsourcing contract, the initial contract negotiation and ongoing management of the process were the major sources of their difficulties. Both these activities require specialist skills that are often not identified or sought after by organisations considering outsourcing arrangements. Surprisingly the area where least problems were encountered was in the management of human resources but this may have been a consequence of the respondents to the survey being mostly CIOs who would have little exposure to such issues.

**Figure 5**

## Difficulties encountered



The authors note that - *“a poor contract can be overcome by a good supplier–client relationship and effective contract management. In contrast an excellent contract can be completely undermined by poor contract management.”*

The areas which caused organisations the most difficulties in ongoing contract management were:

- Lack of documented procedures to be followed by both parties. They identified the need for a clear set of defined documented procedures to support all the activities and responsibilities surrounding the contract.
- Variations in the original contract obligations – significant problems were encountered as the result of variations of the conditions of the original contract or service level agreement. This

highlighted the need for service specifications to be written in such a way as to be flexible and keep the spirit of the agreement when conditions need to be altered.

#### **4. A LOOK TOWARDS THE FUTURE**

The experiences over the last few years of both successful and unsuccessful outsourcing arrangements have meant that future contracts will be with clients who are much more aware of the pitfalls and approach the contract negotiations with a higher degree of awareness and sophistication. The higher degree of competition amongst suppliers and higher level of service required by the clients will probably result in reduced profitability for the suppliers, particularly in the larger contracts. IT pundits are predicting ongoing difficulties for both suppliers and clients to recruit and retain skilled IT staff. The current trend in outsourcing is predicted to continue to grow until at least 2003 and particularly rapid growth is predicted for the Australian IT industry.

Areas where outsourcing is growing are:

- End user computing – PC fleet management is becoming popular and has proven to be an effective means of maintaining currency in technology.
- Applications development – organisations have found it an effective means of delivering new, critical systems to the business faster.
- Addressing Year 2000 issues – organisations are taking the opportunity of upgrading their legacy systems by replacing them with ERP packages such as SAP, Baan and Peoplesoft, and outsourcing their support and operation.
- Business Functions – organisations are extending the scope of their outsourcing arrangements beyond just applications development and support eg. instead of just outsourcing the ADM of their accounts receivable system they are moving towards the concept of outsourcing their entire debt management area to include the complete debt collection , management and accounting functions.

#### **4. KEY SUCCESS FACTORS**

In summary, in order to gain the full benefits of an outsourcing arrangement organisations should aim at meeting their strategic objectives not merely enter a relationship to achieve cost reductions.

Successful contracts implement Service Level Agreements for all services. These SLAs have specifications, which are well defined, appropriate and above all flexible enough to adapt to changing client needs.

Service Level Agreements need to include an appropriate set of key performance indicators, which enable monitoring, and control of supplier performance against baseline values and external industry benchmarks.

Both the client and the supplier need to appreciate the importance of maintaining a good working relationship. They both need to ensure that the appropriate skills and effort are allocated and applied to the management of the relationship.

The client and supplier need to ensure that adequate skills and effort are also applied to the contract negotiation and establishment of requirements so that they share a common set of objectives.

Successful contracts are those which have adopted a rigorous and sound outsourcing lifecycle process.

## **5. WORDS OF WISDOM FROM THE INITIATED**

*“if you have difficulty managing in-house services, be wary of entering into outsourcing – the management issues are many times more complex”*

*“analyse what is core very carefully”*

*“devise your own internal service level strategy first, and assess internal performance”*

*“gain executive commitment”*

*“have a carefully planned coordinated approach”*