Software Measurement Services Ltd.

Case Study
Resolving a Dispute

Software Measurement Services Ltd.

Consultancy and training in the management of Information Systems.

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"How well has our supplier performed during the 2 years of our partnership?"

The major insurance provider who posed this question also wished to reach a consensus with their supplier so that together the two partners could improve their joint practices.

The need to monitor supplier performance has grown over recent years as the use of outsourcing has increased. The more the customer depends on the supplier, the more crucial it is to see the level of performance achieved. With insight into the process, the customer is able to help the supplier improve their practices and performance, to the benefit of both partners and the ultimate end user.

The insurance company customer was about 18 months into a contract that outsourced all software applications development and enhancement to a respected supplier. The executive in charge on the customer side suspected that performance was not up to the levels expected. However, the supplier's account management team chose to interpret the data differently and disputed the criticism. Some means was needed to break the deadlock.

The Project

The customer decided late in 2000 to outsource to one chosen supplier all software application development and enhancement (AD&E).

Most existing personnel would be transferred to the supplier, but would continue to be based on the customer's premises. The supplier would apply their experience and good practice and provide some new senior managers to manage the account.

The work to be transferred to the supplier was summarised in a five-year plan of strategic investments. The customer could not guarantee that all the developments would proceed, but both partners agreed on a firm programme of work for the year in prospect, and an expectation of future investments and resources. Importantly, both the five-year plan and current year plan attempted to define the development methods, technology and resources needed to perform the projects. This was achieved by identifying the types of product and new facilities required to service the insurance business, the size of the projects needed to deliver the business requirement and the operational technology on which functionality would be delivered.

Evolution of the insurance company's technical architecture and development methods was an integral goal of the contract. There was a need to enhance the skills of the development staff, and to improve the development processes across all the CMM® Maturity Level 2 and Maturity Level 3 process areas.

Both partners recognised the value of establishing an initial baseline picture of the performance attained by the customer's IS Department before it was influenced by the supplier. The partners agreed therefore to commission an initial benchmark study, and scheduled a similar benchmark to report on the anniversary of the start of the contract to provide assurance of continuous improvement. A formula specifying the minimum performance improvement expected by the customer was written into the outsourcing contract, with an agreed penalty and reward scheme.

Recognising that disputes occur even in the best of families, both partners agreed it would be sensible to specify a disputes procedure at the start of the contract. They would appoint an 'adjudicator' to decide any questions arising from interpretation of performance data and benchmark reports, and agreed to accept the adjudicator's decision as final.

After a rigorous selection process, SMS was commissioned both to provide the initial performance baseline and perform subsequent annual benchmarks. SMS would also provide an Independent Adjudicator, as specified by the Disputes Procedure, if required. It was stipulated that the Independent Adjudicator should not participate in the benchmark procedures.

Establishing the Baseline

The SMS Team commenced a Fast Data Collection Study (FDCS) of the customer's IT/IS performance. Over the course of only 4-5 weeks, data was collected for a sample of projects. Care was taken to ensure that the set of projects chosen was as representative as possible of the work envisaged by the new contract, and sufficiently large to provide a reasonable baseline of performance.

The Data collected included:

- Project category & platform
- Languages & technologies
- Functional size (Mk II FPA)
- Effort expended
- Duration
- Cost
- Team size
- Team skill & experience
- Defects detected during development
- Residual defects causing faults during the first month of operational use
- Qualitative factors affecting performance
- Plans & estimates compared to actual results

The FDCS was completed by mid-May. After suitable quality checking, the data was processed by SMS' benchmarking service. Within 2-3 weeks, a draft benchmark report had been delivered for review.

This initial benchmark established performance baselines for three categories of project as suggested by the data. The categories were:

- Mainframe-only developments
- Stand-alone PC and web server developments
- Projects delivering onto multiple platforms

During the supplier's 'due diligence' exercise the customer provided to the supplier the results of some earlier performance benchmarks conducted over successive years. The latest of these, performed a few years prior to the commencement of the outsourcing contract, suggested performance in the top 50% and near the upper quartile of all software developers. Both partners assumed that this performance had been sustained and the baseline would come out close to this earlier benchmark. Unfortunately, it did not.

Why was the IT Department's performance below that expected?

Much evidence suggests that a culture of continuous improvement and high performance can be sustained only by continued attention and commitment from senior management. Moves and mergers, etc, had caused distractions.

As a result, the supplier's team were faced with bridging a much bigger performance gap than they'd planned. Since the partners' legal departments had already agreed performance targets, however, the supplier buckled down to the task rather than renegotiate what they considered to be a prestige contract.

The Benchmark

In due course, the SMS Team commenced the planned Fast Data Collection Study for projects performed by the supplier. The original plans had called for the IT Department staff to collect much of this data from projects 'in-flight'. However, circumstances dictated that much of the data for the previous 12 months had to be collected retrospectively by SMS consultants.

The data available was qualified and ready by the end of the following month and the Benchmark Report presented less than 4 weeks after that. The report compared projects in the same categories as previously, this time grouped in terms of relative size to highlight differences in performance between small, medium and large projects.

Without 'in-flight' feedback, supplier management was unable to take timely corrective action

The results were very mixed. Some projects indicated improvements in productivity of around +30% for analysis and build work, with concurrent reductions in cost of about –20%. However, projects tended to take longer overall than predicted by industry data (by about +10%) and did not show any consistent improvement over the initial baseline. Furthermore, it had proved difficult to obtain information on defects detected during development, faults arising during the first month of operation, and qualitative information regarding the causes of variation affecting projects. The supplier had failed to implement an effective measurement programme during the first operational year of the contract. With little feedback on the progress of improvements, management were unable to take timely corrective action. Also, as personnel changed during the transition from an in-house department to a supply-side profit-centre,

communication of the imperative need to focus on improvement activities had been overlooked. Most importantly, insufficient progress had been made to bridge the gap between the performance the supplier had been led to expect from the results of their due diligence exercise (based on out-of-date reports) and that actually exhibited. Hence, the supplier's performance targets agreed for the first year were not met.

As the time of the 2nd annual benchmark of the supplier's performance approached, the customer realised that, as the supplier had not achieved the first year targets, it was very unlikely to hit those agreed for the second year. The supplier, however, argued that the targets were wrong. The customer executive therefore initiated the agreed Dispute Procedure, commenced negotiations with the supplier and called in the Independent Adjudicator.

The Answer

Following the previously agreed Dispute Procedure, the Independent Adjudicator heard submissions from both partners. He and an assistant reviewed both the Baseline and Benchmark Reports, the performance targets based on those reports, and the process by which they had been derived. Some minor flaws in the data were identified and rectified.

New representatives had been appointed both by the customer and the supplier, and of course, the Independent Adjudicator had not previously been involved in the benchmarking studies. This brought a fresh set of minds to the situation, but provision had to be made to enable these individuals to obtain a clear understanding both of the situation and the benchmark data.

A summary and report on the situation was presented to all parties. A definitive view was given regarding the appropriate baselines, and the reasonableness of the agreed targets. Finally, the Independent Adjudicator made a ruling regarding the supplier's achievement of the first year targets. This enabled the penalty and reward clauses of the outsourcing contract to be enforced, and subsequently, new targets to be negotiated using the latest annual Benchmark Report as a baseline.

The Benefits

Building independent, objective benchmarking into the outsourcing contract enabled the partners to agree quantitative targets, and to recognise when performance was not as required. It provided a means to focus the attention of the supplier's management on performance improvement and to correct the course when deviations occurred.

Use of an unbiased 3rd party provided assurance of goodwill on all sides and helped to square the circle to keep the relationship on track.

Making provision for a Disputes Procedure and an Independent Adjudicator avoided prolonged argument of the facts (and hence more expense and delay) and enabled rapid enforcement of the contract and renegotiation of achievable targets.