VALUE MANAGEMENT HELPS XPLORER TRAIN FIND A NEW HOME

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Introduction

In September 1990 the State Rail of NSW commissioned Travis McEwen Group to conduct a Value Management Study to locate a service facility for the New Xplorer Diesel Passenger Train.

The train was to replace the existing diesel rail car fleet which was obsolete and past the end of its useful life. The existing service facilities were not suitable for the new train since the introduction of the latest technology into the new trains meant that entirely different work practices would be necessary to maintain the new fleet.

The new Xplorer trains had been specified and tenders had been called, however, at the commencement of the study the order for the trains had not been placed, and as such many issues were still subject of negotiation between SRA and the successful manufacturer, who was to be ABB in Melbourne.

Although Travis McEwen Group had a long involvement with the SRA as consultants on many projects, and had been a participant in many Value Management Studies, this was the first Study that we were to facilitate.

Background

Prior to placing the order for the new trains a VM study had been utilized to select the type of Train best suited to provide the required service. This process was successful in providing a technical standard to ensure the train would fulfil the required service needs.

The reason or FUNCTION for the SRA for providing a particular passenger service was to move the required number of passengers over a particular route with the minimum investment in rolling stock, while at the same time efficiently maintaining a prescribed standard of reliability and comfort. A part of the initial study recommendations into the Diesel Rail Cars was to undertake a further Study into the exact location of a service facility for the new trains.

Anyone who has had experience with the rail authorities would know how much emotion and politics can be generated by a new train and depot. Any findings and recommendations would be subject to much analysis and potential dispute.

Client Brief

The Brief given to the Study Group required that the Depot must be:

- Operationally Sound
- Suit both CountryLink and CityRail
- Cost Effective - initial capital cost
  - operationally

Study Team

The Study Team comprised:

Sponsor	Arthur Smith	Countrylink
Group Co-ordinator	Mal Harper	CityRail
Facilitator	John Humphreys	Travis McEwen Group
Full-time members	Brian Jolly	Freight Rail
	Stephen Barnett	CityRail
	Terry Malone	CountryLink

During the course of the Study, which was over a four week period, approximately 15 people from the SRA provided input. Input from some groups was purely technical, while others had vested interests they were trying to promote. To identify and understand this process is of course essential to the ultimate success of any VM study.

Study Location

The Study was located in an underground area of Transport House, Sydney, affectionately known as the "bunker". It has no windows and is very isolated and, as such, has no distractions, in theory an ideal location. It has, however, uninspiring decor, which is very depressing and claustrophobic. This tended to overwhelm the team from time to time. The venue provided adequate area for display and the walls were suitable to pin up charts and ideas. However, the enclosed and depressing environment meant that it was necessary, at certain critical times, for the Study Team to get out to clear the mind and regroup.

Why a VM Study?

The SRA of NSW have for a long time been very supportive of VM and they knew that the findings and recommendations of any group were going to be subjected to intense scrutiny and challenge. The structured and systematic approach of VM had proved in the past to be very effective and it was felt that this would provide the best solution. The functional analysis of the VM Study should provide a suitable answer to a very complex issue.

Study Process

Once the study brief was given to the group and a general introduction provided the process of analysing the functions of the proposed Xplorer service began. Our first task was to understand the service pattern and frequency required. In addition, we were given figures regarding maximum and minimum fleet sizes to be purchased.

The aim of the study was to locate the service facility in the optimum location. The main operational factors considered were:

Train Paths
Dead Running
Timetable Sensitivity
Stabling Arrangements
Maximum availability/reliability

In addition to the foregoing operational factors, consideration was given to recent Capital Investment in existing servicing facilities that could be capable of maintaining the new fleet. This Capital Investment was in the order of $34 million over the previous seven years.

A brain storming session identified 22 possible locations. A weighted evaluation scale was drawn up by the group and particulars such as existing infrastructure, operational access, future land use, and sensitivity to future timetable changes were all considered. This process reduced the list to seven locations. The cost of dead running, that is, empty trains with no paying passengers, further reduced the effective possible locations to three.

Once the potential location, which was as close as possible to Central Station, had been identified it was necessary to find a suitable position such as an existing shed or site for a new shed. This once again required the group to identify the functions that were essential and must be carried out in the shed.

It was essential to focus the groups attention on the fact that the service facility was a running shed and not a workshop. This was a fundamental functional change from previous train fleet requirements.

All the service functions were listed into time spans, which when merged with train availability enabled the group to achieve a clear idea of shed size and optimum workforce required.

Armed with these facts and figures clearly engraved on our confused minds we left the bunker and spent a couple of days walking around railway yards in our preferred location looking for the needle in the haystack, an existing suitable facility that no one wanted. Suffice to say all locations were being closely guarded by the existing occupants.

Perseverance has its reward and eventually a suitable shed was identified as becoming available within the required time frame. The shed, at the time known as the Tangara Commissioning shed, was originally a running shed for steam trains. It was currently being used to commission electric trains, so it seemed very appropriate that once again it should return to a function more closely aligned to its historic roots.

Study Benefits

At the start of the study many people within the SRA had pre-conceived ideas as to what would be the preferred option to service and maintain the new Diesel Xplorer Train. Most of the ideas were based upon other agenda and did not address the real functional requirement of providing a passenger service.

The most common concept, however, was that a new facility would be built at an estimated cost of $12 million. This estimate of cost did not take into account the need for additional rolling stock that most of the locations would have required. The cost of an additional two car close coupled set was $5 million.

The estimated cost of converting the Eveleigh Running Shed, the preferred option of the study group, was $2.5 million and this included the cost of jacking equipment. This work has been largely completed within the budget. In fact the first paying passengers travelled on the train on October 5, 1993.

The real benefits of the study could be summarized as follows:

- Capital Saving in building works
  $10 million
- Saving in Rolling Stock
  $5 million
- Servicing of fleet maintained within SRA
- Future timetabling flexibility maintained
- Future savings in operation of service depot
  compared to existing practice

The SRA have, on the basis of the study recommendations, been able to negotiate an effective and efficient workplace agreement. This agreement has enabled the SRA to retain the servicing and maintenance of the Xplorer Train. This Contract was won by the SRA in a competitive tender against private tenders.

This result has been achieved against the current trends in our society of placing every possible item of work out to contract within the private sector. The reason for this success was largely due to the results of a very thorough VM Study, together with people within the SRA looking ahead and realising the need to change existing practice.

Study Team Relationships

The core team represented the different stakeholders who all had vested interests in the project. The actual team members were people who would actually operate the service facility when it would be in operation.

As facilitator it was necessary to overcome a sceptical attitude, held initially by the various participants, that the study was a waste of time and that nothing would ever be achieved as a result. It was believed that, as in the past, when the New Train came into service that they would not be given the facilities needed to properly service the train.

The greatest challenge faced was to get the group reacting properly and participating as a team. Once this was achieved, it was then a challenge for the group to take on board the submissions from the various people who were providing input into the study. In some cases the people presenting data were the supervising officers of members of the team, therefore it was essential to convince the team members to voice their opinion even if it did not agree with that of their supervising officer.

It was necessary from time to time to break out and regroup as the intensity would reach such a level that productivity would taper off completely. At these times we would go out and get some fresh air, clear our minds and re-enter "the bunker" with renewed enthusiasm and vigour.

During the course of the study several presentations were given by the group to senior SRA management. This was to ensure that they were aware of the progress being achieved, and to ensure that we were not proceeding in directions that may be contrary to future SRA policy.

These presentations were essential to measure progress, ensure the group remain focused, and in communication with the people who had commissioned the Study. This method ensures that milestones are being achieved and monitored.

Conclusions

The Value Management Study, by the systematic analysis of the FUNCTIONS involved in providing a passenger train service, delivered a very cost effective solution to a very complex problem. The solution not only forecast considerable savings, they have been proven.

The Study results have been the subject of intense questioning and scrutiny. The study findings have withstood this process, and the integrity of the recommendations remain intact.

The Study was successful, savings in excess of $15 million were realized, and the SRA remain a totally focused and informed operator of the new Xplorer Trains.

Facilitators Reflections

To conduct a successful study, many aspects must be addressed by the facilitator. Some of the more pertinent factors, not in any particular order were:

MOTIVATE THE GROUP

GAIN THE TRUST OF THE GROUP

UNDERSTAND THE TECHNICAL JARGON OF THE ORGANISATION

UNDERSTAND THE ORGANISATIONAL STRUCTURE

STUDY AND LEARN THE PROBLEM

COMMUNICATE AT ALL LEVELS WITHIN THE ORGANISATION

DEVELOP PRESENTATION SKILLS

HAVE A GOOD SPONSOR

ENSURE ALL PARTICIPANTS HAVE EQUAL STATUS

Footnote:

The original Facilitator for this Study was to have been Mr Bob White, a Fellow of the Institute of Value Management, who, due to some unfortunate family problems, was unable to commence this commission. I would sincerely thank Bob for his support and encouragement with this Study.