



Replacing the Abel Tasman

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Abstract:

Shipping companies are characterised by their very large capital investment usually in a small fleet of ships. In the case of the Tasmanian Government passenger shipping service operated by TT-Line there is only one ferry, Abel Tasman, which was introduced in 1986. It means that investment decisions involve significant long term changes in the product offered to customers.

The decision to replace Abel Tasman involves an investment of over \$150 million. This paper examines the process that led to the decision to replace Abel Tasman which encompasses a wide range of factors including whether the Tasmanian Government should be operating an interstate sea passenger service at all. The paper attempts to give an insight into the structural rational decision making process used in this major project.

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Introduction

The Tasmanian Government took over the Bass Strait passenger ferry service in 1985. When the Abel Tasman was introduced, it represented a new standard of facilities and service. It replaced an old tired vessel, the Empress of Australia operated by the Australian National Line, that had few amenities, poor passenger accommodation, inadequate terminals and booking system and poorly trained and motivated ship and shore personnel.

While the Abel Tasman was a major step forward, this 1975 German built vessel was by 1990 in a similar market position to the Empress of Australia. Passengers expect a better standard of service, more capacity, better facilities and passenger accommodation.

The Tasmanian Government decided in February 1990 to set up a Working Party to investigate the issues involved in replacing Abel Tasman and the available options. It is not too often that the decision-making process in major public sector investment decisions is openly discussed and examined. This paper describes the process undertaken by the Tasmanian Government in deciding to replace the Abel Tasman with the \$150 million Peter Pan. Clearly, much of the financial and demand information on which the decision-making was based is commercially confidential and cannot be included here. Nevertheless, the paper gives an insight into the structured rational decision-making process used in a major project.

Why should the Tasmanian Government run TT-Line

The first question to be addressed by the Working Party in considering why it should replace the Abel Tasman was to determine its aims in running a shipping line.

One proposition was that TT-Line should be corporatised and run as a private business. At the other end of the spectrum, some considered that TT-Line was an adjunct of the State's tourism industry. Rees (1984) identified four reasons for the existence of Public Enterprises.

- to correct market failure
- to alter the structure of market payoffs in the economy
- to facilitate centralised long term economic planning
- to change the nature of the economy from capitalist to socialist

Of these only the first is relevant in this case. Rees advances the proposition of "dynamic market failure" where investors may be too myopic or risk averse to provide adequate finance for an important sector of the economy. Tourism is just such an important industry which provides about 9% of the Gross State Product and a little over 9% of employment in Tasmania.

After much discussion the Working Party concluded that there were five reasons for continued Government involvement in TT-Line:

(1) **Accessibility** - the sea link was viewed as a vital part of Tasmania's transport infrastructure and was the only link with the mainland road transport infrastructure. It was an important component of the tourist industry as some 60% of travellers on Abel Tasman were genuine tourists. Given the increasing importance of the tourism industry to the government's broad strategy of economic development, it was

important that such tourism support operations as the TT-Line reflect and support overall government strategic imperatives

(2) **Reliability** - past experience suggested that in the absence of government providing a minimum service, there was little likelihood of the private sector providing a regular and reliable sea link.

(3) **Insurance** - Tasmania can only be serviced by air or sea. Recent experience during the pilots' dispute clearly demonstrated the State's vulnerability in this area and emphasised the importance of a regular sea link being vital to Tasmania's economic and social wellbeing.

(4) **Monopoly** - the volume of Bass Strait trade was not sufficient to encourage full and fair private sector competition in either passenger or freight transport. In the absence of Government involvement, an oligopoly could readily develop which would harm Tasmania. One of the strongest arguments, at the "academic" level, for the involvement of the public sector in activities was to counter monopolies.

(5) **Benefit to Small Industry** - TT-Line provides a valuable alternative for small freight shippers and promotes competition and innovation in Bass Strait shipping. Because of Abel Tasman's relatively small freight capacity and exclusive use of trailers, it aims directly at the small shipper market, and has greatly stimulated, through multiplier effects, downstream economic activity. The cessation of an Abel Tasman type of service would have adverse employment and economic development impacts on the State.

These five benefits are particular to Government and not available to private capital. In the framework developed by Rees they go some way to justifying TT-Line being a public enterprise.

What sort of service should TT-Line operate?

Having decided that there were a number of reasons why the Government should continue to be involved in interstate passenger shipping, the next issue considered by the Working Party was whether there was a need to replace Abel Tasman and, if so, when.

TT-Line had carried out extensive market research both into its own operations and those of other passenger services to Tasmania. The early results of these studies were reported in Ampt and Finch 1987.

These studies fall into three main groups

- comparative studies of air and sea travel
- quantitative studies of TT-Line passengers
- qualitative studies of potential travellers.

In addition to the Ampt study in 1986, TT-Line extensively analysed the Tasmanian Visitor Survey, (TVS 1986) (Transport Tasmania 1989) a biennial year long study carried out jointly by ABS and Tourism Tasmania and from 1986 to 1989, TT-Line also carried out extensive surveys of its own passengers. These quantitative studies were supplemented by a limited number of qualitative studies that attempted to look at the reasons that would lead potential travellers to travel by sea. Quantitative surveys of potential travellers were ruled out because of the very large sample sizes required in the major metropolitan centres.

The outcome of those surveys was remarkably consistent

- air travellers were different to sea travellers
- air travellers were more likely to be
 - travelling on business
 - travelling for a shorter time
 - more likely to be on a package holiday
- sea travellers were more likely to be
 - less affluent
 - older
 - staying longer
 - tourists (60% of the market)

The quantitative studies of Abel Tasman travellers showed that

- half travelled so as to bring their car
- a quarter of visitors (but only 10% of Tasmanians) were looking for some kind of sea experience
- cost was not a significant reason for travel (health reasons were equally important)
- the proportion of Visiting Friends or Relatives traffic was reasonably low

The qualitative studies strongly linked the concept of travel to an island with sea travel. There was also great interest in the idea of a mini cruise, particularly by Melbourne residents. There was not, however, a high awareness of the Abel Tasman.

The market research surveys supported the idea that the concept of a high quality mini cruise market would be an important supplement to the basic demand for point to point traffic.

In addition to the research, TT-Line tried some marketing initiatives that proved potential new markets away from the conservative mum/dad, two kids and a car that typified the Abel Tasman passenger.

In 1989, TT-Line began to seek out the business meeting market and attracted a number of round trip bookings out of Melbourne. Unfortunately, the lack of available space on the ship prevented the further development of this market, but its potential was established.

At the same time, TT-Line began offering "weekend packages" offering a long weekend (Friday, Saturday, Sunday) out of Melbourne for the price of a round trip fare. These were offered as a filler fare at times of reduced demand. On winter sailings it was common for more than 200 passenger to be travelling on "weekenders' packages".

The market research, together with the marketing initiatives, showed that:

- TT-Line operated substantially in its own market and did not compete with air.
- It was primarily a carrier of tourists
- The principal attractions were being able to take a car, and the mini cruise market
- There were a number of potential new markets to be explored.
- There was ample unfulfilled passenger demand.

In addition to this research into passenger markets, there was also an extensive investigation into the potential for increased freight carryings. Abel Tasman reintroduced trailer shipping into Bass Strait. All other operators preferred to ship freight in containers, arguing that this optimised the carriage of goods by ship. However, ordinary road trailers offered shippers and forwarders a number of advantages including reduced equipment costs, easier onforwarding, better equipment utilisation and more efficient stowage of goods.

Moreover, as a passenger ferry, Abel Tasman offered freedom from industrial disputes and regular and reliable arrival times. In a 1989 survey, (Transport Tasmania 1989) TT-Line was rated as best of all Bass Strait shipping companies for client services - commitment, marketing, response to problems, reputation for cargo minimum damage and punctual delivery, and for the characteristics of the vessel. This premium service allowed TT-Line to charge a premium price.

All of these factors provided confidence in the future market potential of an overnight passenger ferry. The most significant factor is the unique ability of TT-Line to provide a reliable and effective overnight trailer service between Tasmania and the mainland. The combination of an overnight passenger and trailer freight service, which is unique to TT-Line, was to be a critical factor in the decisions about the type and capacity of the shipping service required.

The impact of competition - The Sea Cat and ANL

It was known in early 1989 that TT-Line would face competition from the Sea Cat, the revolutionary wave piercing catamaran due to begin operation in December 1990. TT-Line would also face competition in the freight sector from ANL who proposed to introduce two brand new freight vessels early in 1991. The impact of either could not be predicted with any certainty.

From the market research undertaken by TT-Line and the market position adopted by Sea Cat it was clear that the catamaran would appeal mainly to budget conscious travellers, a large unsatisfied market which TT-Line did not really cater for. The catamaran was also expected to tap a new market from eastern and northern Victoria and New South Wales that would not adversely impact on the TT-Line operation.

While the impact of the catamaran could not be predicted with any certainty, its

fare structure and market appeal were thought to be complementary and would not adversely impact on TT-Line's core tourism market.

Why? **When should Abel Tasman be replaced?**

It was apparent that TT-Line could continue to operate profitably for some years with the current ship. However, there were a number of factors that mitigated against this option.

- The Abel Tasman was fully utilised and did not have any capacity to allow it to capture the identified market potential. The catamaran would not greatly impact on the core market for Abel Tasman.
- Continued operation of the Abel Tasman would lead to a reduced residual value of the vessel. For example, it was estimated that if sold in 1993, the Abel Tasman would fetch \$30 million, whereas if it was sold in 1995 it would be worth less than \$15 million at best, that is, the vessel was coming to an age where the rate of depreciation in value was accelerating.
- Continued operation of the Abel Tasman would also lead to increased unreliability, with aging and mechanical breakdown. This would make it difficult, in future years, to maintain its current market position.
- If it was decided not to replace Abel Tasman as soon as possible it would be necessary to revert to sailing six days a week to provide reserve capacity in the event of breakdown. This would reduce capacity by 16%.
- Delaying replacement of the Abel Tasman would provide other shipping organisations the opportunity to capture the overnight freight market. This would substantially reduce the viability of any future Abel Tasman replacement decision.
- Given the public and industry perception of the importance of the Abel Tasman to the State's economic wellbeing, a decision to defer replacement would have an adverse impact, and could be expected to negatively impact on other investment decisions; for example, in tourist developments.

With no secondhand ships currently available the most realistic option available was to build a new ship. This would take at least 2 - 3 years to deliver from the time of order. By 1993, the earliest likely replacement date, Abel Tasman would be 18 years old. This raised some questions about its continued reliability. More importantly, there could be a decline in morale both within management and onboard the ship, leading to lower service levels.

The Working Party considered that delay could lead to a decline in the profitability and reliability of the TT-Line service. This could also allow competitors to lessen the current operational advantages that TT-Line have in the important freight market.

For these reasons the Working Party strongly recommended that the Abel Tasman be replaced as soon as possible;

The Working Party recognised the advantages of a secondhand vessel:

- lower capital cost with consequential lower risk to Government
- reduced project management task and risk
- likelihood of replacing Abel Tasman earlier than with a newbuilding
- an earlier replacement with a defined vessel would facilitate industrial negotiations.

However, because of the subsidy arrangements available on new ships, any secondhand vessel was likely to be at least 8 years old

Financial evaluation

The financial evaluation used a custom written spreadsheet model that included all the many revenue and cost variables. Its structure is shown schematically in Fig 1. This was used to evaluate the selected options and to measure their sensitivity to changes in selected variables. The spreadsheet also allowed a range of financing options to be assessed.

The then most likely option was a new ship estimated to cost some \$140 million. It was found that variables that had the most effect on retained earnings were

- | | |
|---|-----------|
| - for every 1% decrease in lease interest rates | \$530,000 |
| - for every additional trailer every sailing | \$495,000 |
| - for every additional 5000 passengers per year | \$475,000 |
| - for every \$1 million extra in new ship cost | \$140,000 |

Recommendation

The result of this extensive analysis, which took some 7 months, was a recommendation to Government to replace Abel Tasman with a purpose built new ferry. However, although no suitable secondhand ferry was known to be available, the Working Party recommended that any which became available should be evaluated in view of the advantages which included

- likely lower capital cost
- reduced project management task and risk
- likely earlier replacement date

Implementation

As with any major project, the twin golden rules apply

- it will always take longer than you think
- it will always cost far more than estimated

This was certainly true of new passenger ferries in August 1990. The order book for passenger ferries and cruise liners (which are built in the same specialised shipyards) had never been longer or prices higher. Ships quoted for \$120 million in 1989 became \$150 million and more in 1990. Delivery times extended into 1994.

A telephone call from a shipbroker led to an investigation of a possible Norwegian ferry in late August and while this was unsuitable for Bass Strait it indirectly led to the negotiations to purchase the 1986 built German ferry Peter Pan. This ship was the closest fit to TT-Line's specifications and while it was not available until mid 1993 it was a more modern ship than TT-Line had expected to buy and offered a greater vehicle deck capacity than any new ship that TT-Line could afford.

The extensive negotiations, legal, financial and technical issues fall outside the scope of this paper but took the next three months to finalise before the purchase of Peter Pan was complete. The last aspects of the legal documentation were finalised in January 1991, almost 11 months after the decision-making process for the acquisition of a replacement had begun.

The decision-making process had involved a small team of up to 8 drawn from the highest levels of the Tasmanian Government. The challenge to evaluate a complex technical, legal and financial project had been met by adopting a structured approach that began with the fundamentals and ended with a simple but effective method of assessing the options available measured against the criteria set by Government.

This approach provided a sound basis for decision-making in which all potential options could be identified and considered in an open and unbiased framework. It sets an example for decision-making in other major public sector projects.

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