



Big Boy Enterprise

Business Plan

Group 16

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1 | Introduction

1.1 | Company Idea

Our company's goal is to identify and fill a market gap by taking a medium risk and making a medium-high profit. We work hard to reach our clients' goals. According to this, we want to be a reliable and trustworthy company.

1.2 | Company Mission

Big Boy Enterprise is a profitable business for investors because our mission is to employ specific and qualified means that are primarily designed to operate in environments where few competitors can. Our company strives to be very active and reactive in the market, never failing to meet our obligations on time. With this approach, we will gain experience and constantly improve and expand our service.

1.3 | Market Analysis

Based on our market knowledge, the northern European market (Baltic Area & Hamburg - Le Havre) is quite busy and has a large number of voyage contracts available. Since this region has mainly large harbours, the chance of not having any contracts in the region is low. However, a lot of these harbours have ice-class requirements, limiting the number of vessels that may operate in these areas. Looking at the different types of available ships, only a few of them are ice-class. The majority of ice-class ships are smaller ships (DWT smaller than 35000t). There are only 14 ice-class Handymax-type ships (DWT 66758t).

When the prices of the ships are considered, as well as the initial funds (excluding the possibility of a loan), the true availability is limited to four/five ships. As a result, medium-sized ships with ice-class are clearly limited, but they are very competitive for cargo weight around 30,000t that requires ice-class.

Another possible choice could be a Handy ship, however, a Handymax ship is a superior alternative since it offers more available DWT without a relevant increase of the other dimensions.

1.4 | Strategy

Overall, we can state that medium-sized ice-class ships are a growing market. We expect that not all of our competitors will focus on this segment, leaving us with a potentially relevant portion of the market. Due to the lack of competitors in this specialised marketplace, the profit margin will be bigger than in the rest of it. This is true if there are always contracts that demand ice-class. Our business will primarily seek small/medium-term contracts in order to generate regular income, and we believe that this strategy is realistic given the distances in the area in which we will operate. We will evaluate the available contracts on a weekly basis and pick those that not only suit the parameters of our vessel but are also less likely to be claimed by our competitors. If these contracts became scarce, a decrease will occur in our profit but this does not imply we would be vulnerable: we would have to compete with other ships of the same size. This might result in a lower profit margin, but we would still be profitable.

Taking into account all the previous considerations, for the first year, we have decided to invest in 2 Handymax ships at a low price. The first one needs to be transferred from a remote destination, therefore it will not produce any income for at least the first 3 weeks. However, this ship can guarantee an operational period of 560 days before docking, providing constant revenue in the European area. It should be taken into consideration that most of the ships which do not require docking in a short time are generally located far from Europe. Because of this reason we are planning to buy a second ship. The second ship will be bought in the Baltic area and immediately sell after 6 months, so before docking. This is necessary since the second ship will provide positive revenue while the first one is reaching the European region. However, due to the high costs of docking compared to the ship's value, it is advisable to sell the ship before docking.

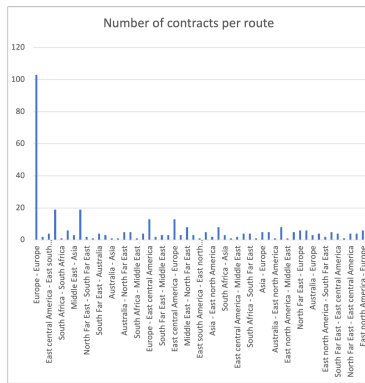


Figure 1.1: Number of contracts per route

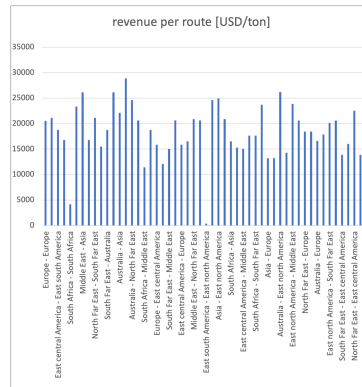


Figure 1.2: Revenue per route

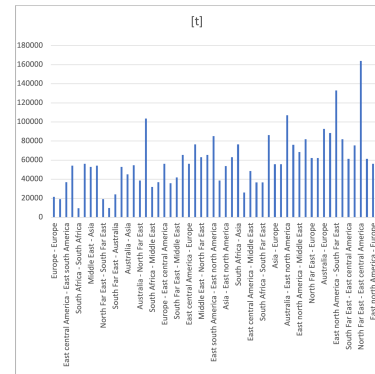


Figure 1.3: Medium tons per route (per contract)

1.5 | SWOT and Confrontation Matrix

A SWOT analysis and the associated Confrontation Matrix were created to give more precise information about our business and strategy. The higher the score in a given cell in the matrix, the more argued and considered that choice must be.

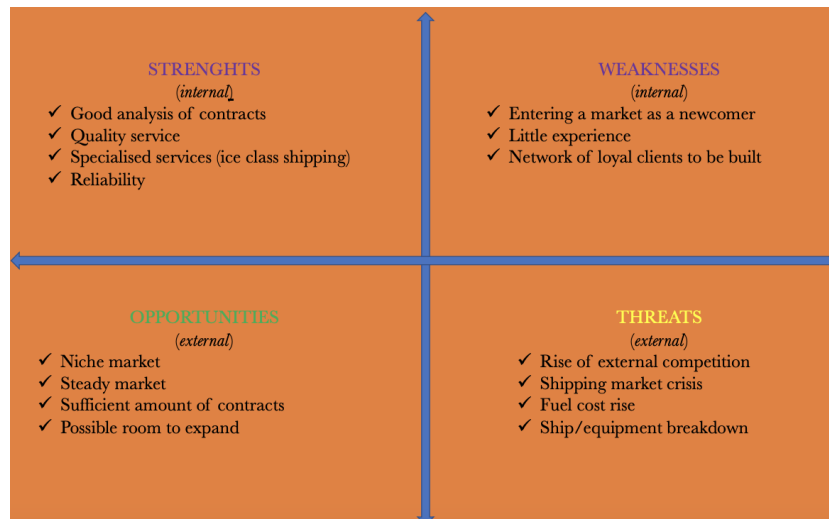


Figure 1.4: Confrontation matrix

	Niche market	Steady market	Sufficient amount of contracts	Possible room to expand	Rise of external competition	Shipping market crisis	Fuel cost rise	Ship/equipment breakdown
Good analysis of contract	0	3	6	5	0	6	3	1
Quality service	0	4	0	3	9	0	7	2
Specialized service	6	5	4	1	3	5	5	0
Reliability	3	2	3	0	4	2	3	9
Entering a market as a newcomer	5	0	3	5	0	0	0	0
Little experience	0	2	0	2	0	0	0	6
Network of loyal clients to be built	4	2	2	2	2	5	0	0

Figure 1.5: SWOT analysis

2 | Investment Proposal

2.1 | Free Cash Flow Proposal

The cash flow has been calculated starting from an investment of \$5 million. Firstly, the purchase of a ship suitable for our strategy has been considered. Analyzing the current ship market it is possible to establish an average price for the target ship, in fact, there is a sufficient number of Handymax-sized ships with ice-class certification for about \$1.7 million.

With the ships' information, the OPEX costs (crew, administration, insurance and maintenance) can be evaluated and result in a total of \$3.1 million in the first year, while it is \$1.1 million in the second year.

The fuel costs have been calculated considering that the ship will operate for 2/3 of the time under contract and for the remaining time in ballast conditions. This leads to a fuel cost of \$658,000 in the first year and \$238,000 in the second one considering the average price of the fuel in north Europe port.

For the taxation costs calculation, the German flag has been chosen, and the most convenient tax policy results in the taxation upon gross tonnage (\$0.24 per 1000 ton per day). In order to calculate the yearly income, a possible scenario according to the available data has been considered, with at least the start/end port in a northern European port and the other one in the whole of Europe.

Considering different types of cargo and reasonable bids of 70% of the maximum rate, an income of around \$1.2 million has been quantified in the first year and \$584,000 in the second. According to these assumptions also the costs of port fees and commissions have been taken into account.

Since both the ships sail in the European area, no canal fees have been taken into account.

	1 st Year	2 nd Year
	2 ship	1 ship
Investment (x 1000 \$)	3338	-
Income (x 1000 \$)	8390	3767
Port Fees (x 1000 \$)	3393	1305
Fuel cost (x 1000 \$)	658	238
OPEX (x 1000 \$)	3139	1098
Tax x GT (\$)	3493	1659
Free Cash Flow (x 1000 \$)	1197	584

Table 2.1: Free cash flow analysis

2.2 | NPV calculations

The Net Present Value (NPV) can be calculated with the following formula:

$$NPV = \sum_{i=0}^n \frac{FCF}{(1 + WACC)^i}$$

Where WACC stays for the Weighted Average Cost of Capital and is defined with the following formula:

$$WACC = \frac{D}{D + E} \cdot \text{Cost of Debt} + \frac{E}{D + E} \cdot \text{Cost of Equity}$$

Since our company does not intend to take any loan there is no debt and cost of debt so the WACC is equal to the cost of equity.

$$WACC = \text{Cost of Equity} = \frac{500}{3338} = 0.15$$

As previously described the goal is to buy two Handymax vessel, so our cost of equity will be the 10% on Mr. Jones' investment divided by our investment in the vessels.

$$NPV = -\frac{3338}{(1 + 0.15)^0} + \frac{1197}{(1 + 0.15)^1} + \frac{1669 \cdot (1 - 0.035)}{(1 + 0.15)^1} + \frac{584}{(1 + 0.15)^2} + \frac{1669 \cdot (1 - 0.035)^2}{(1 + 0.15)^2} = 721$$

The NPV has been calculated over a period of 2 years, showing the possibility of making a relevant amount of money despite the short period. As it can be seen, at year 0 the FCF is negative because of the purchase of 2 ships, at year 1 is positive thanks to the income provided by voyage charters and from the sell of one ship (with a depreciation of 3.5%) and in the end at year 2 the situation is the same as for year 1, but with the FCF of the only ship remained.

2.3 | IRR calculations

The Internal Rate of Return (IRR) is by definition equal to the WACC when the NPV is equal to 0. Therefore, it can be calculated as follows:

$$0 = -\frac{3338}{(1 + IRR)^0} + \frac{1197}{(1 + IRR)^1} + \frac{1669 \cdot (1 - 0.035)}{(1 + IRR)^1} + \frac{584}{(1 + IRR)^2} + \frac{1669 \cdot (1 - 0.035)^2}{(1 + IRR)^2}$$

$$IRR = 0.70$$

The required rate of return (RRR) is the cost of equity which is roughly equal to the IRR. In order to make a good investment, the internal rate of return (IRR) should be higher than the RRR.

$$IRR = 0.70 > 0.15 = RRR$$

So this can be considered a good investment.