



Analysis of the financial feasibility of ship repair service sector companies based on break-even points in surabaya (the case of the planned establishment of pt marine service)

M Azizul Khakim

Management, STIE Mahardhika, Surabaya, Indonesia

ARTICLE INFO

Article history:

Received May 28, 2023

Revised June 05, 2023

Accepted August 31, 2023

Keywords:

Analysis;
Break-even Point;
Investors;
Repairs;
Sea Transportation.

ABSTRACT

Surabaya is one of the second largest cities in Indonesia. Geographically Surabaya is in the lowlands and is surrounded by the sea. Surabaya is the entry point for sea expeditions for Eastern Indonesia. Based on the explanation above, the author gives the opinion that Surabaya also has potential in the sea transportation sector. This study aims to provide an overview that business in the field of sea transportation has good potential. This analysis is based on the results of calculating Break Even Points. The author-, provides an overview of his analysis based on a real case of forming a company with services in the field of ship repair in the city of Surabaya. In this case, various facts related to the maritime sector were found, especially in the field of ship repair services. The author has found that new companies can be formed because of market demand, there are interested parties who are aware of the request, and there are supporting roles from various parties such as regulators, society, communities, and so on. One of the interested parties in question is investors. Investor analysis in investing decisions is based on break-even point analysis which can provide an overview of the investment breakeven period of the investor, as well as the risks that the investor may accept.

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Corresponding Author:

M. Azizul Khakim
Management,
STIE Mahardhika,
Jl. Wisata Menanggal 41A, Surabaya, 60234, Indonesia.
Email: m.khakim@stiemahardhika.ac.id

INTRODUCTION

The development of modern commercial shipping began with the invention of the steam engine by James Watt around the 18th century and this sector continued to experience development until the industrial revolution (Rahayu, 2019). Since then, the world of commercial shipping has continued to develop and is still looking for the most efficient means of sea transportation that is considered capable of saving energy on the one hand and on the other. Another development carried out is related to increasing the ship's load capacity to obtain maximum additional income. The

implementation of these types of shipping businesses requires different types of ships, according to the type of commodity that is the object of transportation targeted by shipping business owners.

Business in the field of commercial shipping or shipping is a type of business that is capital intensive, and requires quite large capital because ships or sea transportation fleets have quite high prices and organizational costs for companies in this field are also high. Apart from considerations related to the procurement or investment of ships (new or used), the study team also knows other reasons for the emergence of boat rentals to fulfill needs or fill in shipping schedules for certain periods and other parties, there are also other reasons, namely there are entrepreneurs who open business businesses. shipping by leasing a private fleet of ships, without owning a shipping company.

All types of ships used in service and operational activities certainly need to be carried out regular maintenance and repairs, in order to maintain the service performance of the ship unit. Maintenance actions aim to extend the life of the ship unit, guarantee the quality of service to users and ensure safety for the service team and users.

Based on the observations of the study team, it is assumed that ships that are actively used in service or for other purposes need and are obliged to carry out regular maintenance. Maintenance is a standard thing and must be done if a shipping company wants to maintain its performance and existence. These factors also open opportunities for PT Marine Indonesia to take part in meeting market demand.

Apart from maintenance services, which are definitely scheduled by shipping companies to maintain their performance, there are also those that are prepared for sea shipping companies, namely repair services. Repairs occur when a unit is damaged either in the mild, moderate, or severe category, resulting in disruption of the ship's operations to provide services.

Following are the repair and maintenance services provided by PT Marine Indonesia with experts who have high competence and experience, including: Ship Building, Below the waterline (plate replacement/replating, bottom painting, aluminum anode replacement, waterline painting, ship name, port register, draft mark, and plimsol mark, and so on), Above the waterline (slab replacement/replating, main deck painting, deck outfitting work, and so on). Stomach Equipment, Anchors, Windlass Dam Chains, Maintenance of Valves, Maintenance of Sea Check and Grating Boxes, Services for unloading tires and dampers, Substitution of Bananas, Replacement of Dapra Tires, Tanks, Cleaning tanks (Fresh Water Tanks, Ballast Tanks, Fuel Oil Tanks, Bilge/Got), Cleaning of manure and provision of drums for manure, Change of packing. Propulsion And Steering System Propeller Maintenance, Propeller Shaft Maintenance, Maintenance of the Steering Stick, Maintenance of the Rudder. Piping Systems, Such As Me Cooling Pipes And P/S Gearboxes). Test And Inspection Magger Test, Plate Thickness Test (Ut Test), Vacuum Test, Propeller Crack Test (NDT), Propeller Shaft Crack Test (NDT).

RESEARCH METHOD

PT Pelindo Marine Service Employee Cooperative Development "TIGA LAUT" is a challenge for companies to be able to increase their role and contribution to the sea transport sector in Indonesia, especially in Surabaya. There are three planning approaches that can be used in preparing PT Marine Indonesia's strategic planning, namely as follows:

- a. Overall rational approach, in this case, includes broad planning considerations, in which there are various elements or sub-sections that make up the overall business system. Meyerson Banfields identifies that there are 4 main characteristics of the overall rational planning approach, including (a) Based on a general policy that defines the goals to be achieved as an inseparable unit, (b) Based on a complete, comprehensive, and structured set of objective specifications, (c) Accurate forecasting or projections and supported by a complete, objective,



reliable, and specific information system, (d) Forecasting or projections directed at goals in the long term.

- b. Separate planning approach, emerged as a response to the ineffectiveness of planning with an overall rational approach. This approach was discovered by Charles E. Lindblom, et al., who explained that this approach has 3 main characteristics: (a) Separate plans do not need to be supported by a thorough review and evaluation of plans, (b) Only consider the parts of the general policy that are directly related to the prioritized sub-sections, (c) With the limited scope of planning, namely on certain sub-section elements, there is a presumption that implementation becomes easier and more realistic.

However, in reality, this approach still has weaknesses, such as due to a lack of comprehensive insight, unexpected impacts often occur, it is considered only a short-term settlement effort that is not related to long-term goals and objectives, and is considered a problem solving in a "patchwork" manner which is temporary so it must be done continuously.

A disaggregated approach is based on overall consideration which is a combination of an overall rational approach with a disaggregated approach, namely simplifying the overall approach in the scope of insight at a glance and deepening the review of the strategic elements of the overall problem.

Proyeksi Break Event Point (BEP) PT Marine Indonesia

The projection of PT Marine Indonesia's break even point (BEP) is very important so that stakeholders and users of this report can have an overview regarding PT Marine Indonesia's performance and projected future conditions. According to Sutrisno In Ema (2012), several benefits of BEP are sales or production planning, normal selling price planning, production method planning, and factory closing point.

In planning the establishment of PT Marine Indonesia also carried out careful profit planning so that it is very good for investors to make decisions. According to Carter (2009:5) that in determining profit objectives, management should consider the following factors: (a) Profit or loss resulting from a certain sales volume, (b) Sales volume needed to cover all costs and generate sufficient profit to pay dividends and provide for future business needs, (c) Sales volume can be achieved with the current operating capacity, (d) Operating capacity required to achieve profit objectives, (e) Rate of return on capital used.

The following is a projection for PT Marine Indonesia's BEP calculation based on several indicators:

- a. Analisa Proyeksi Penerimaan

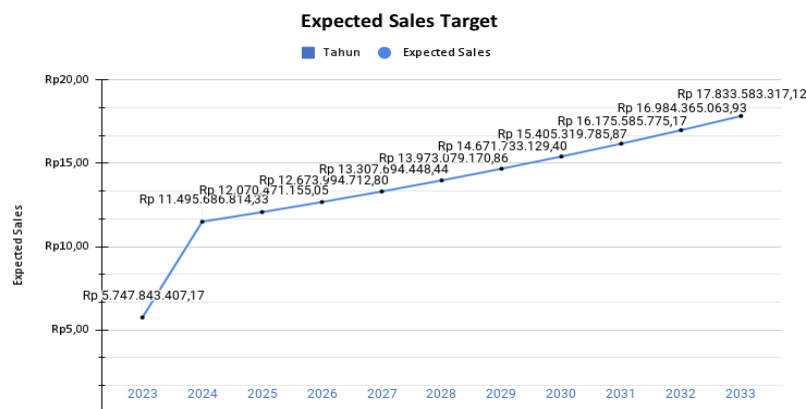


Figure 2. Expected Sales Graph

This analysis of revenue projections or sales projections is the result of the analysis of the study team based on historical data of PT Pelindo Marine Service "Tiga Laut" Employee Cooperative regarding the provision of ship repair services and ship permit management services. The data is processed and it is projected that sales will increase by approximately 5% annually based on the inflation rate.

From the graph, we can draw a conclusion that the company is projected to experience an increase with added value within 10 years. PT marine Indonesia is a service provider company, so it is not surprising that it has a high demand for the services offered both to the PT Pelindo group but also to outsiders.

Analisis Proyeksi Profit

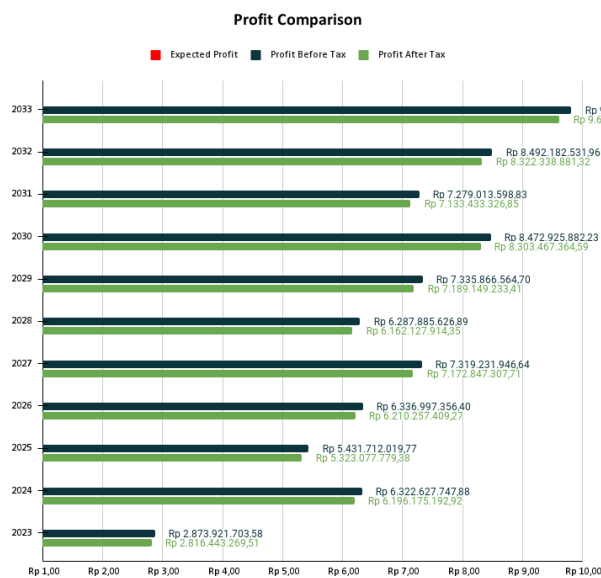


Figure 3. Profit Comparison Chart

Based on the graph above, we can conclude that PT Marine Indonesia's potential to earn profits is around 50%. Expected profit looks high compared to other companies, this is because PT Marine Indonesia is a company engaged in the service sector so the profit potential is relatively high. With the company's potential and analysis of historical data, PT Pelindo Marine Service "Tiga Laut" Employee Cooperative also looks good and has good prospects.

Based on the graph above, it is also illustrated that PT Marine Indonesia has a fairly good growth projection. This potential is illustrated because PT Marine Indonesia is engaged in services with minimal capital so that PT Marine Indonesia has a fairly high ability regarding profit growth. Based on projections based on company studies, it was concluded that within 10 years there has been a dynamic increase.

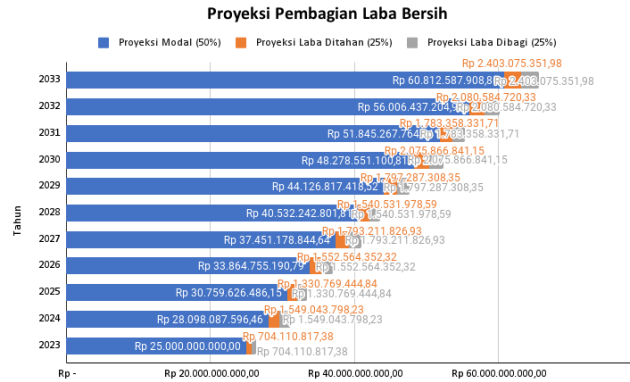


Figure 4. Projection of Net Profit Distribution

Based on the results of the data processing illustrated in the graph above, it can be seen that profit is distributed over three components, namely profit allocated to an additional capital of 50%, retained earnings allocated to 25% and profit to be distributed by 25%. From the description above, it can also be concluded that the value of the company's capital will also increase by 25% each period.

The allocation of profits received will have an impact on the company's operational system, because capital is the source of the company in carrying out its business activities. With the division of capital allocation in the graph above, the study team concludes that this company has prospective strengths in the field of capital and company capacity.

Analisis Break Even Point



Figure 5. Graph of BEP PT Marine Indonesia

A more complete calculation regarding the break even point can be seen in Appendix 2. The calculation is based on historical data from PT Pelindo Marine Service "Tiga Laut" Employee Cooperative. From the graph, it can be seen that it is projected that in the third year, there will be a break-even point (BEP). Based on these assumptions, the study team believes that PT Marine Indonesia has good prospects and the risk level of PT Marine Indonesia is also small.

From the graph above, it can be seen that in the third year, the company has the ability to generate profits of Rp. 5,431,712,019 at this time the company experienced a break-even point. A comparison between projected costs and projected profits is a picture of a straight-line relationship between the two.

Identification of Management Needs

To realize the vision of the PT Pelindo Marine Service Employee Cooperative "Tiga Laut" and business development in the field of ship repair services and ship licensing services. This is in

line with the company's goal to be able to meet the needs of its members and also external parties, especially the PT Pelindo group. In order for PT Marine Indonesia to provide services that can provide optimal satisfaction to customers and related parties, PT Marine Indonesia requires further preparation and communication with the parent company and related companies. With the birth of PT Marine Indonesia, we can project that this company will complement the strengths of the Pelindo Group and also bring good benefits to the PT Pelindo Marine Service "Three Laut" Employee Cooperative, so that it will greatly affect customer satisfaction and related parties.

Several reasons for the formation of PT Marine Indonesia in the ship repair and maintenance service sector are as follows: (a) PT Pelindo Marine Service "Tiga Laut" Employee Cooperative has started pioneering ship repair services, and has significant growth, so it is necessary to expand business lines, (b) PT Marine Indonesia was born because of efforts to widen the scope of management in response to market demand for mail handling services so that it becomes easier, faster and lower cost,

The Employee Cooperative of PT Pelindo Marine Service "Three Sons" has several services that are quite diverse, resulting in a lack of focus and an impact on customer service. With the birth of PT Marine Indonesia as a separate entity from the holding company PT Pelindo Marine Service "Tiga Laut" Employee Cooperative, service speed and guaranteed legality can be provided to customers with good quality and quality. (a) Lack of ability to assess service quality, Often the assessment of service quality globally or in detail per unit cannot be carried out. This is due to a lack of focus in the business so there is no data available for monitoring or checking. (b) There is a change in business processes, Business process changes are very likely to occur in a service provided by an organization or business entity. To overcome this, we need a new subsidiary that can accommodate changes in business processes when these business processes have been implemented in a business system, especially in providing information reports to interested parties or stakeholders. Basically, all PT Pelindo Marine Service "Three Laut" Employee Cooperative decisions to expand its business are to fulfill customer demands and strengthen the company's business management position.

RESULTS AND DISCUSSIONS

PT Marine Indonesia's strategy is based on several perspectives

Financial Perspective

There are several important factors, especially from the results of the analysis of the business environment and competitiveness of PT Marine Indonesia which can be used as a basis for the process of setting strategic targets and measures from a financial perspective, including: (a) Opportunity to open market potential, (b) One of the weaknesses of PT Marine Indonesia is the dependency on revenue from a large number of users of PT Marine Indonesia's services.

By using these factors, strategic objectives and measures can be developed from a financial perspective as follows: Increased management fees. In order to increase the value of management fees, companies are therefore required to be able to increase the number of ships that enter to use the services offered and/or improve the standardization of services provided to customers so that it has an impact on increasing the level of customer satisfaction.

The measurement used is the growth of management fees.

Customer Perspective

In terms of the relationship between the law of supply and demand, the success reflected in the customer perspective indicators will have a direct effect on improving financial performance. To be able to increase its revenue, the company must look back at what its main customers are actually looking for from the services they provide. By fulfilling customer demand, the company can provide added value from the services offered so that it is expected to increase its income because customers are the company's main source of income.

The characteristic of customers owned by PT Marine Indonesia is to put forward the best service at an acceptable price level. Therefore, the factors of achieving ship worthiness to sail and berthing, sailing safety, achieving commission days expected by customers, the efficiency of running costs expected by customers, and customer satisfaction become more valuable. These factors constitute the customer value proposition. Therefore the company must focus more on its strategy in order to be able to fulfill the customer value proposition through the service process that has occurred.

Internal Business Process Perspective

In order to support the achievement of predetermined customer targets and financial targets, it is very important to manage and control internal business processes including several stages, namely by increasing the quality of standard operating procedures and planned maintenance, routine inspection of the completeness of supporting equipment for ship repair services for service optimization, optimized procurement and control in running costs. (a) Improving the quality of standard operating procedures and planned maintenance. (b) Routine inspection of the completeness & condition of repair service support tools to serve customer requests. (c) Optimized procurement, management process in an effort to obtain goods or services, (d) Control in running costs, PT Marine Indonesia must control the running costs that must be borne by the customer and the company in accordance with a budget that has been determined together so that the end result of the work engagement process is in accordance with customer expectations.

Growth and Learning Perspectives

The company has goals from a financial perspective, customers and internal business processes are to identify things that must be mastered by the company in order to produce good and special performance.

Meanwhile, the goals from the learning and growth perspective are as a driving factor for producing special performance in the three perspectives above, by providing the infrastructure that causes the goals in the three perspectives to be achieved. So it can be said that the learning and growth perspective is the starting point for the development of other perspectives. Therefore the main objective from this perspective is to improve the quality of human resources and management. (a) Increase employee commitment, (b) Improving Employee Capability.

CONCLUSION

The management of PT Marine Indonesia was formed to support the running of business and services to the community which is also in accordance with management functions, including planning, organizing, staffing, motivating, and controlling according to theory (Terry & Rue, 2012). Meanwhile, the theory of management tools (M. Manullang, 2012) which consists of Man, Money, Method, Machine, Material, and Market has also been fulfilled. Based on the above matters, it is projected that PT Marine Indonesia will be able to continue its business/business of ship repair services and processing of ship permits, even in difficult conditions. The study team also provided an opinion based on the studies that had been conducted, PT Marine Indonesia deserved to be managed properly to meet demand in the sea transportation sector. PT Marine Indonesia in carrying out repair services and sea transportation permit management services will continue to grow in line with increasing demand or progress in the sea transportation sector. Therefore sea transportation such as ships as a means of transportation and expeditions will still be needed, as well as business developments in this sector in the future. This business has promising prospects for investors and stakeholders-, and needs to be developed to provide services that meet national and international standards. This research will be a reference in further research. This happens because the marine anchorage sector is very important to monitor, so that continuous improvements can occur properly. Subsequent research

will examine the relationship between cost and quality value of sea freight services. Researchers hope that phenomena and progress will be formed in Indonesian maritime affairs.

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