Business Review and Case Studies, Vol. 6 No. 2, August 2025
Permalink/DOI: http://dx.doi.org/10.17358/brcs.6.2.349
Available online at http://journal.ipb.ac.id/index.php/brcs

EISSN: 2721-6926

BUSINESS PERFORMANCE ANALYSIS OF UNIVERSITAS TRUNOJOYO MADURA SALT POND PRODUCTION

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Article history:

Received
16 January 2025

Revised
10 May 2025

Accepted
8 August 2025

Available online
28 August 2025

ABSTRACT

Background: The Universitas Trunojoyo Madura is a state university in Madura that contributes to the development of Madura's potential, one of which is the salt field. To support the program, Universitas Trunojoyo Madura prepared a salt laboratory as a test site for salt production with an area of 4 ha in Padelegan Village, Pamekasan Regency. Owing to capital constraints, the Universitas Trunojoyo Madura salt pond land still does not produce salt. From the result of this research, it is hoped that there will be recommendations related to the development of Universitas Trunojoyo Madura salt ponds for optimization of Universitas Trunojoyo Madura salt pond production operations.
Purpose: This study was conducted to determine the amount of salt business production costs, the amount of capital needed, and the income obtained from salt production business activities. In addition, the purpose of this study is to analyze the performance of the Universitas Trunojoyo Madura salt pond business so that it can be known whether the salt business in Universitas Trunojoyo Madura salt ponds is feasible or not.
Design/methodology/approach: The method used in This study employed a quantitative descriptive method. This research was conducted from August to December 2023, and the object of this study was the Universitas Trunojoyo Madura salt pond located in Padelegan Village, Pamekasan Regency.
Findings/Result: Based on this research, an R/C ratio value of 2,25, indicates that for every IDR100, cost incurred for salt ponds, a receipt of IDR225 will be obtained,. In addition, based on the results of the break-even point analysis, salt production in the Universitas Trunojoyo Madura ponds will break even when producing as much as 177 tons or IDR299,731,818, which is still below the total crop yield in one year of 480 tons or equivalent to IDR816,000,000.
Conclusion: This study shows that salt production in the Universitas Trunojoyo Madura salt pond land can be carried out based on the results of business performance analysis, such as profit analysis, R/C analysis, and break-even point.
Originality/value (State of the art): This study examined the business performance analysis of Universitas Trunojoyo Madura salt pond by comparing costs and prices that will be obtained from the salt production process on the land

Keywords: business performance analysis, salt production, Madura, R/C ratio, profit analysis

How to Cite:
Prasetyo, N., Susandini, A., & Safitri, W. (2025). Business performance analysis of Universitas Trunojoyo Madura salt pond production. Business Review and Case Studies, 6(2), 349. https://doi.org/10.17358/brcs.6.2.349

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INTRODUCTION

The Universitas Trunojoyo Madura is the only state university in Madura that contributes to developing Madura's potential, one of which is the salt field. Salt plays a vital role in Indonesia's economy, and Madura Island is a key player in the country's overall salt production (Fauziyah et al. 2023). This statement is in line with similar research that states that Madura has consistently played a significant role in contributing to the nation's salt production (Kustiyahningsih et al. 2022). Not only is it a consumption item that is closely related to national food security but also has an important role in the domestic industrial world. Because of the essential role of salt, it is dubbed a "political commodity' (Gibran, 2015). Salt is a white solid object in the form of crystals, which are a collection of compounds with the largest share of Sodium Chloride (> 80%) and other compounds such as Magnesium Chloride, Magnesium Sulfate and Calcium Chloride (E. Putri, 2019). Every year, the need for national salt has increased, and salt production can only meet salt consumption (O. Putri & Sugiarti, 2021). Realizing the need for salt and the potential possessed by Madura, the Universitas Trunojoyo Madura designed the Research Master Plan (RMP) to improve and develop Ma dura's potential. To support the program, Universitas Trunojoyo Madura prepared a salt laboratory as a test site for salt production with an area of 4 ha in Padelegan Village, Pamekasan Regency.

However, the Universitas Trunojoyo Madura salt pond land still does not produce salt because of capital constraints because it is known that the costs needed to produce salt are not small. The cost of land preparation, namely land dredging, equipment costs, labor costs, and other costs. In addition, the Universitas Trunojoyo Madura salt ponds are often exposed to seawater waves; therefore, additional costs are required for repair and maintenance. Therefore, careful and detailed calculations are needed regarding the costs needed to produce salt so that the production cost efficiency can be used to optimize the production of salt ponds owned by the Universitas Trunojoyo Madura.

Production costs are an important variable that affects the size of a company's profit and the salt pond business. Another understanding states that production costs are costs that must be incurred by the owners of production factors or during the production process, both in the form of cash or non-cash (Floperda & Wanda, 2015). The cost of production is closely related to the production factors. Production factors are objects created by nature or humans, which can be used to produce goods and services. The factors of salt production include salt pond land, labor, capital, and technology.

The amount of capital must be spent on salt production, and it is necessary to conduct business performance analysis. This analysis compares the amount of capital, costs used to run a business, and income to be obtained. By conducting this analysis, the feasibility of the University Trunojoyo Madura salt pond business was determined. Business performance analysis provides information about the relationship between the cost structure incurred and financial performance in determining the profit and feasibility of the salt pond business.

The series of salt production activities are grouped into two aspects: non-financial and financial. The non-financial aspects include salt production facilities, land ownership, salt production techniques, and institutions. The financial aspect analyzes financial performance based on the cost structure, profit, and investment feasibility criteria. This research focuses on the financial aspects of production activities at the University Trunojoyo Madura salt ponds. This study aims to determine the amount of salt business production costs, capital needed, and income obtained from salt production business activities. In addition, the purpose of this study is to analyze the performance of the Universitas Trunojoyo Madura salt pond business to determine whether it is feasible.

From the results of this study, it is hoped that there will be recommendations related to the development of Universitas Trunojoyo Madura salt ponds for optimization of Universitas Trunojoyo Madura salt pond production operations.

This study conducted a comprehensive analysis of the business performance of salt pond operations at Universitas Trunojoyo Madura by systematically comparing the costs incurred during the salt production process with the prices anticipated from the sale of salt produced on the premises. The analysis involved detailed accounting of all production-related expenses, including capital investment, labor, materials, and operational costs, along with a careful examination of market prices and revenue streams generated from salt

sales. By juxtaposing these financial inputs and outputs, this study aims to assess the economic viability and profitability of the salt pond business. This approach allowed for an evaluation of whether the production activities at the Universitas Trunojoyo Madura are sustainable and financially beneficial, providing a clear understanding of the cost-effectiveness of the enterprise. The findings from this analysis serve as a critical foundation for making informed decisions regarding the continuation, improvement, and restructuring of salt pond operations to enhance overall business performance and optimize production efficiency.

The approach employed to address the research problem involves Financial Viability Assessment. This methodology integrates data on salt production costs, market prices, and the revenue generated from salt production processes in Madura. This analysis evaluates whether the UTM salt pond utilization project is financially profitable. If a project demonstrates profitability, it is recommended for implementation. Conversely, if deemed unprofitable, the land should be reallocated for alternative purposes. The key steps in this assessment are as follows: Data integration: Production costs (e.g., equipment and labor), salt pricing trends, and revenue projections; Profitability metrics: Analysis of net present value (NPV), return on investment (ROI), and internal rate of return (IRR) over a 10-year period; Decision framework: Comparative evaluation of financial outcomes to determine optimal land use. This structured approach ensures evidence-based decision-making aligned with economic feasibility criteria.

The primary purpose of this study was to determine the various production costs associated with salt business activities and identify the necessary capital investments required to support these enterprises. In addition to these financial aspects, this study aims to thoroughly analyze the overall business performance of salt pond operations managed by Universitas Trunojoyo Madura. By doing so, this study seeks to evaluate the economic viability and sustainability of salt production activities conducted at Universitas Trunojoyo Madura. Through a comprehensive assessment of production expenses, investment needs, and income generated from salt production, this study intends to provide a clear picture of the profitability and efficiency of these operations. Ultimately, it is anticipated that the findings of this investigation will offer valuable recommendations and strategic insights aimed at enhancing the operational performance of the Universitas Trunojoyo Madura salt pond. These recommendations are expected to help optimize production efficiency, improve the quality and quantity of salt output, and contribute to the long-term success and competitiveness of the salt business at the Universitas Trunojoyo Madura. This holistic approach not only addresses the current state of the salt production enterprise, but also lays the groundwork for sustainable development and increased economic benefits for all stakeholders involved.

METHODS

This study employs a quantitative approach by collecting detailed data related to the costs that salt farmers must incur to cultivate salt fields covering an area of four hectares. The primary data used in this study were obtained directly from several salt farmers across various regions within Pamekasan, which is recognized as a significant salt-producing area. These regions include Bunder, Lembung, Pandan, and Padelegan villages. By gathering firsthand information from farmers actively engaged in salt production, this research ensures the accuracy and relevance of the cost data, reflecting real-world conditions and practices in salt farming.

In addition to primary data collection, this study also incorporated secondary data sources to enhance the completeness and robustness of the research findings. These secondary data consist of a wide range of materials including books, scientific journals, annual reports, previous research reports, and relevant articles. The integration of secondary data allows for a more comprehensive understanding of the salt production industry, providing contextual background, theoretical frameworks, and comparative insights that support and complement primary data analysis.

Together, the combination of primary and secondary data forms a solid foundation for analyzing the economic aspects of salt farming in Pamekasan. This dual data approach not only strengthens the validity of the research but also facilitates a more thorough examination of production costs, enabling the study to draw well-informed conclusions and recommendations regarding the efficiency and viability of salt cultivation on a 4-hectare scale in the selected villages.

Data collection techniques refer to the various methods or procedures employed to gather the necessary data required throughout the study (Darmawan et al. 2021). In this study, data collection was primarily conducted through direct interviews with salt farmers located in several key salt-producing villages within Pamekasan. These villages include Bunder Village, Lembung Village, Pandan Village, and Padelegan Village, all of which are recognized for their active involvement in salt farming. The direct interview method allowed the researchers to obtain firsthand, detailed information about farming practices, costs, challenges, and other relevant aspects directly from the farmers themselves, ensuring the accuracy and relevance of the data collected.

In addition to these primary data collection efforts, the research also incorporated a literature review method to supplement and enrich the data. This involved reviewing and analyzing various secondary sources, such as books, scholarly articles, annual reports, research publications, and academic journals that discuss topics related to salt production and the broader context of the study. Utilizing these secondary data sources helped provide a more comprehensive understanding of the subject matter, offering theoretical frameworks, contextual background, and comparative insights that supported the primary data findings.

Snowball sampling was employed in this study. This approach was chosen because during the process of identifying respondents, initial contact was made with a small number of salt farmers. The initial respondents then provided information or referrals to other farmers who met the research criteria, thereby progressively expanding the pool of participants. This method is particularly effective in studies where the target population may be difficult to access directly, or where respondents are identified through networks and social connections. Starting with a limited number of respondents, the sample size increased as more complete and relevant information was obtained through these referrals, enabling the research to gather a sufficiently large and representative sample of salt farmers across the selected villages.

Overall, the combination of direct interviews, literature review, and snowball sampling provided a robust and thorough data-collection framework that ensured that the research was grounded in both empirical evidence and existing knowledge, thereby enhancing the validity and reliability of the study's conclusions.

This study employed a quantitative descriptive approach with the primary objective of calculating the total cost involved in salt production. Following this, an in-depth analysis of business performance will be conducted to determine the feasibility of the salt pond production enterprise at Universitas Trunojoyo Madura. Descriptive research provides a comprehensive description of various conditions, situations, and variables related to the object of study, which, in this case, is the salt production business (Zellatifanny and Mudjiyanto, 2018). The research is situated in Padelegan Village, Pademawu District, Pamekasan Regency, and was conducted from August to December 2023.

The data analysis procedure consists of several steps. Initially, the costs associated with salt production are classified into their respective categories to provide clarity on the expenditure components. Subsequently, the total production cost was calculated by aggregating the classified costs. In parallel, total production receipts are determined to understand the revenue generated from salt production activities. To assess the economic viability and profitability of the business, key financial indicators such as the revenue-to-cost (R/C) ratio, profit margins, and break-even point will be computed. These metrics provide insights into the operational efficiency and financial sustainability of salt pond businesses.

Once all calculations and analyses have been completed, the research will evaluate whether salt production operations at Universitas Trunojoyo Madura are feasible from a business perspective. This feasibility assessment will serve as a basis for decision-making regarding the continuation, modification, or cessation of salt-pond production activities. If a business is found to be financially viable, it could be recommended for further development and scaling. Conversely, if the findings indicate that the operations are not economically sustainable, alternative uses of salt-pond resources may be considered. This comprehensive approach ensures that the study not only quantifies costs and revenues, but also provides a clear, evidence-based evaluation of the business performance and prospects of the Universitas Trunojoyo Madura salt pond production enterprise.

Figure 1 illustrates how the research process was conducted from start to finish. The research on the business performance analysis of the Universitas Trunojoyo Madura (UTM) salt pond production

begins with a clear determination of the study location. From the outset, the chosen site is the salt pond land owned by the Universitas Trunojoyo Madura, which is situated in Padelegan Village. This initial step is crucial to ensure that the research is focused on and contextually relevant. Following the selection of the location, a comprehensive direct survey was conducted at the site and within the surrounding community. This survey aimed to gather essential preliminary information and insights that will inform the development of a detailed research proposal. Once data collection from the survey phase was complete, the research proposal was carefully drafted, incorporating the objectives, methodology, and expected outcomes of the study. Upon receiving approval, the research process officially commenced with systematic data-collection activities. These activities involve gathering quantitative and qualitative data related to the salt-pond production business, including production volumes, costs, revenues, and other operational parameters. The next phase involved meticulous data processing and analysis. A comprehensive report was compiled in the final stage of the research. This report synthesizes all the collected data, analyses, and interpretations into a coherent document that presents the overall findings of the study.

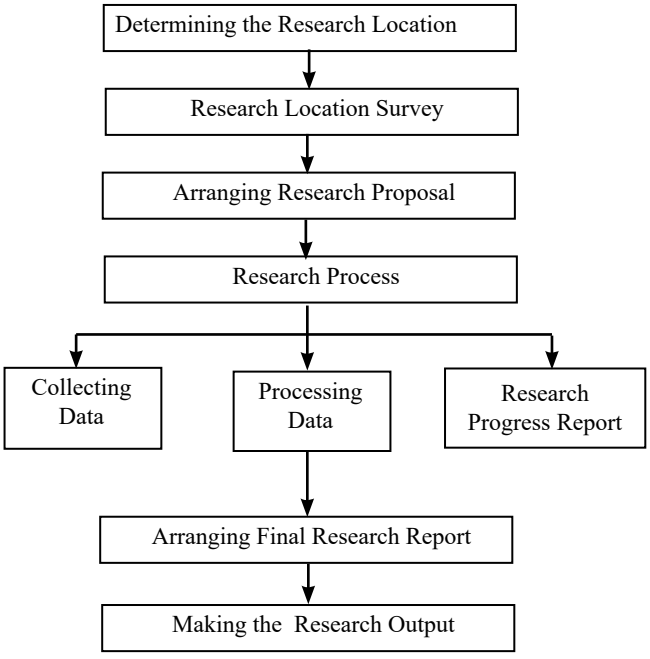

Figure 1. Framework of thought

RESULTS

Estimated Total Cost of Salt Production

Production cost refers to a specific amount of funds or money spent to produce a product, good, or service (Dariana, 2020). More specifically, production costs encompass all expenses incurred to process raw materials into finished products that are ready to be marketed and sold (Mulyadi, 2015). Understanding production costs is vital because they play a crucial role in shaping strategic business decisions and influencing areas such as pricing strategies, make-or-buy decisions, product design, and the evaluation of new production processes (Brierley, Cowton, and Drury n.d.).

Production costs are generally divided into three main elements directly related to production activities: direct material costs, direct labor costs, and factory overhead costs (Rosdiana et al. 2020). Additionally, based on the nature of production activities or volumes, costs can be classified into two types: fixed and variable costs (Ruddin, 2019). This study divides the cost of salt production into two categories: fixed costs and variable costs.

Fixed costs are expenses that remain constant and do not fluctuate with changes in production volume of production (Assegaf, 2019). In the context of salt production, fixed costs include items such as the salt pond land, land preparation costs, water pumps, windmills, geomembranes, wooden slenders, slicers, paralons, and other necessary equipment. These costs are incurred regardless of the amount of salt produced during a season.

On the other hand, variable costs vary directly with the level of production volume, meaning they increase or decrease depending on how much salt is produced (Maruta, 2018). In salt production, variable costs primarily consist of labor wages and fuel costs. Labor wages refer to payments to land cultivators and transportation workers. The wages of land cultivators are considered variable costs, because salt production in this context does not follow a profit-sharing system. The profit-sharing system, which is common in some salt production settings, involves sharing profits between landowners (capital providers) and land cultivators. However, in this study, wages are paid directly as variable costs without profit sharing.

Thus, the total cost of salt production is the sum of the fixed and variable costs. In this study, production costs were calculated based on a single production season, which was estimated to have 15 harvest cycles within that season. The total fixed costs incurred for each season amount to IDR188,764,000, whereas the total variable costs are IDR116,200,000. Therefore, the total production cost for managing four hectares of salt pond land amounts to IDR304,964,000. When broken down per hectare, the production cost for 1 ha of salt pond land is IDR76,241,000. A detailed breakdown of the total costs incurred in managing the four hectares of salt land is provided in Table 1, which outlines the estimated costs associated with salt production at the Universitas Trunojoyo Madura.

In summary, this comprehensive cost classification and calculation provides a clear picture of the financial requirements involved in salt production on a 4-hectare scale, distinguishing between permanent fixed investments and variable operational expenses. This distinction is essential for accurate financial planning, cost control, and strategic decision making aimed at optimizing production efficiency and profitability in the salt business.

To understand salt production costs, it is important to note that despite being an archipelagic state, Indonesia still imports an average of 2.72 million tons of salt annually. This results in significant economic loss. Salt production often relies on traditional methods, making it dependent on the solar heat and other environmental factors. Modernizing salt production can involve techniques such as the use of HDPE geomembranes to improve salt quality and quantity. Improving the quality of salt production may include modifying the traditional salt production process by placing an HDPE geomembrane. This modification can increase the number of salt products and NaCl levels that meet or exceed the Indonesian National Standard (SNI), which is above 94.75%. Key strategies to improve the local salt industry include standardization of salt production, market regulations, and financing regulations.

Table 1. Estimated Universitas Trunojoyo Madura salt production cost

Fixed Costs						
Information	Sum	Unit	Price (IDR)	Time	Total (IDR)	Cost per season (IDR)
Land/land	4	Hectares	500,000,000	10 years	2,000,000,000	200,000,000
Land preparation	4	Hectares	50,000,000	4 years	200,000,000	50,000,000
Water Pump	4	Pcs	4,600,000	5 years	18,400,000	3,680,000
Windmill	8	Pcs	1,500,000	5 years	12,000,000	2,400,000
Geomembrane	12	Rollers	6,000,000	10 years	72,000,000	7,200,000
Slender Wood	4	Pcs	200,000	5 years	800,000	160,000
Scavengers	4	Pcs	50,000	2 years	200,000	100,000
Paralon 4 Dim	8	Pcs	65,000	5 years	520,000	104,000
Paralon 3 Dim	24	Pcs	25,000	5 years	600,000	120,000
Total Fixed Costs					1,704,520,000	263,764,000
Variable Costs						
Cultivator's Wages	4	Person	4,000,000	1 month	16,000,000	96,000,000
Freight Wages	20	Person	80,000	1 season	1,600,000	1,600,000
Fuel Cost	4	Hectares	550,000	1 season	2,200,000	2,200,000
Total Variable Costs						99,800,000
Total Cost (a+b)						363,564,000

Performance Analysis of Universitas Trunojoyo Madura Salt Production Business

Business performance serves as a crucial measurement tool to evaluate the outcomes of work that has been carried out, encompassing both qualitative and quantitative aspects (Sidiqqoh and Alamsyah 2017). This measurement provides insights into how well a business or project functions in relation to its goals and objectives. Several methods can be employed to conduct a thorough analysis of business performance, including assessing the degree to which stakeholder expectations are met, evaluating effectiveness and efficiency, and reviewing financial performance indicators (Suryani and J, 2018).

In the context of the salt pond production business at Universitas Trunojoyo Madura, an analysis of business performance can be effectively conducted by examining the calculated production costs along with the revenue generated from salt production activities. This comparative analysis allows for the assessment of how well a business performs financially and operationally. Business performance analysis is a vital tool used to measure the success or failure of a project and provides a sound basis for making informed recommendations regarding whether the project should continue or be reconsidered.

A key component of business performance analysis involves a detailed examination of financial aspects. To measure performance accurately, it is essential to first identify and understand capital investment and all costs incurred by the company in the process of production. These costs include fixed and variable expenses, labor, materials, and other operational expenditures. The analysis proceeds by calculating the total receipts or revenues generated from production. Important financial ratios and metrics, such as the revenue-to-cost (R/C) ratio, profit margins, and the Break-Even Point (BEP), are then computed to provide a comprehensive picture of the project's financial health.

The R/C ratio offers insight into the relationship between income and costs, indicating whether a business generates sufficient revenue to cover its expenses. Profit calculations reveal the net financial gain from operations, while the BEP identifies the production level at which total revenues equal total costs, signaling the threshold for profitability. By integrating these financial indicators, the business performance analysis provides a robust framework for evaluating the feasibility and sustainability of salt pond production at the Universitas Trunojoyo Madura. This approach not only measures current performance, but also guides strategic decision-making to optimize operations and enhance overall business success.

Profit Analysis

Profit is obtained from the difference between total receipts and total costs (Sulistyo and Wahyuni, 2020). In the context of salt production, profit represents the net amount earned after all expenses related to the production process are deducted from the income generated by selling salt. This metric is a crucial indicator of financial health and success of production operations. Based on detailed calculations of both the total costs and total revenue associated with salt production for one season on a land area of four hectares, the profit can be determined by subtracting the total costs from the total revenue. Specifically, the total revenue (TR) generated from the sale of salt during this period amounts to IDR 816,000,000, while the total cost (TC) incurred in producing this quantity of salt is IDR363,564,000. By applying the profit formula:

$\tilde{O} = TR - TC$

$\tilde{O} = 816{,}000{,}000 - 363{,}564{,}000$

$\tilde{O} = 452{,}436{,}000$ (In IDR)

This calculation indicates that the salt production operation on 4-hectare land yields a substantial profit of IDR452,436,000 for one production season. This positive profit margin reflects the economic viability of the salt pond business, demonstrating that the revenue generated significantly exceeded the costs involved. This result highlights the potential for financial sustainability and provides a strong incentive for continued investment and development in salt production activities at this scale.

Ratio R/C analysis

R/C Ratio analysis is a financial metric used to compare total revenue against total costs in a business operation, providing insight into profitability. The greater the R/C value, the higher the profit generated from the business (Nihaya et al. 2020). The term R/C stands for the Revenue Cost Ratio, which is calculated by dividing the total revenue (R) by the total cost (C). This ratio serves as a straightforward indicator of the economic feasibility of a business, where a value greater than one

signifies that the business earns more revenue than its costs, thus indicating profitability. For the Universitas Trunojoyo Madura salt production business, the R/C ratio was calculated to assess its financial performance. The total revenue generated from salt production was recorded at IDR816,000,000, while the total costs incurred amounted to IDR363,564,000. Using the formula:

R/C = Total Revenue/ Total Cost
R/C = 816,000,000/ 363.564.000
R/C = 2.25

This calculation reveals that the R/C ratio for the salt production business at the Universitas Trunojoyo Madura is 2.25. This means that for every IDR100 spent on production costs, the business earns an IDR225 revenue. An R/C ratio value of 2.25 is significantly higher than the commonly accepted threshold of 1.3, which is often used as a benchmark to determine whether a business is feasible. Since the R/C ratio exceeds this benchmark, it indicates that the salt production business is not only profitable, but also financially viable and qualified to operate sustainably.

This positive R/C ratio reflects the efficient management of production costs relative to revenue generation and suggests that the business model employed in the Universitas Trunojoyo Madura salt ponds is sound. It provides a strong financial foundation for continued investment and development of salt production activities. Moreover, this analysis can serve as a valuable reference for stakeholders and decision makers when considering the expansion or improvement of salt production operations, as it clearly demonstrates the potential for generating substantial returns relative to the costs involved.

In summary, the R/C ratio analysis confirms that the salt production business at Universitas Trunojoyo Madura is economically feasible and profitable, supporting the ongoing and possibly expanded salt production efforts in this region.

BEP (Break event Point) Analysis

Breakeven point (BEP) analysis is a fundamental financial tool used to determine the exact point at which total sales revenue equals the total costs incurred by a business, meaning that the business operates in a state of no profit and no loss. This signifies that the company's revenues cover all fixed and variable costs, resulting in zero net profit (Manuho et al. 2021). Understanding BEP is crucial because it reveals the relationship between fixed costs, variable costs, profit, and the volume of activity, whether measured in sales or production units. Therefore, BEP analysis is often referred to as cost-profit-volume analysis, as it helps businesses understand how changes in production volume or sales impact profitability. In the context of the salt production business at Universitas Trunojoyo Madura, the break-even point was calculated to assess the minimum sales required to cover all costs. The formula used to calculate the BEP in terms of revenue (IDR) is :

BEP = Fixed Cost / (1- (Variable Cost)/sales)
BEP = 263,764,000 / (1- (99,800,000/816,000,000)
BEP = 299,731,818

This means that the salt production business must generate a sales revenue of approximately IDR299,731,818 to break even. Similarly, the breakeven point in terms of production volume (units) is calculated by dividing the fixed costs by the contribution margin per unit (price per unit minus variable cost per unit):

BEP (unit) = FC/ (p-v)
BEP (unit) = 263,764,000/ (1,700,000–208,000)
BEP (unit) = 177 ton

Therefore, the salt production operation breaks even when it produces and sells approximately 177 tons of salt. This analysis indicates that the Universitas Trunojoyo Madura salt pond business needs to achieve a minimum sales volume of 177 tons or generate a sales revenue of IDR299,731,818 to cover all its fixed and variable costs without incurring a loss. Because the actual annual production and sales volume exceed this break-even threshold, the business operates in a profitable zone beyond the break-even point. Understanding this BEP is essential for management to make informed decisions regarding production planning, pricing strategies, and cost control to ensure sustained profitability. It also provides a clear target for minimum sales performance and serves as a critical benchmark for evaluating operational efficiency and financial health.

The analysis of salt production at Universitas Trunojoyo Madura (UTM) provides a detailed overview of the cost structure, business performance, and financial feasibility of salt pond operations on a 4-hectare scale. Production costs are a fundamental consideration, encompassing all expenditures required to transform raw materials into market-ready salt. These costs are divided into fixed costs, such as land, land preparation, water pumps, windmills, geomembranes, wooden slenders, slicers, and paralons, which remain constant regardless of production volume, and variable costs, which fluctuate with production output and primarily include labor wages and fuel expenses. In this context, labor costs are treated as variables because of the absence of a profit-sharing system, with wages paid directly to cultivators and transport workers.

For one production season, which consists of an estimated 15 harvest cycles, the total fixed costs amount to IDR188,764,000, while the variable costs are IDR116,200,000. This brings the total production cost for managing four hectares of salt ponds to IDR304,964,000 or IDR76,241,000 per hectare. The income generated from salt production is substantial, with a total output of 480 tons sold at IDR1,700,000 per ton, resulting in a total revenue of IDR816,000,000. Subtracting the total costs from this revenue yields a profit of IDR452,436,000 per season, highlighting the strong economic viability of the operation.

A key indicator of profitability is the revenue-to-cost (R/C) ratio, which compares total revenue to total costs. The R/C ratio for the UTM salt production business was calculated to be 2.25, meaning that for every IDR 100 spent, the business earned IDR225. This ratio significantly exceeds the commonly accepted feasibility threshold of 1.3, indicating not only profitability, but also strong financial sustainability. A high R/C ratio reflects efficient cost management and robust revenue generation, making the business model highly attractive for continued investment and potential expansion. The results of the R/C ratio are also explained in a study analyzing the salt pond business in Gedongmulyo Village, Lasem District, and Rembang Regency (Andriyani et al. 2013). In a study on the value chain and feasibility of salt farming in Cebrek Village, it was found that the salt business is financially profitable and can be continuously developed (Aulana et al. 2018)

Further financial analysis using the Break-Even Point (BEP) approach reveals that the business achieves break-even at a sales value of IDR299,731,818 or a production volume of 177 tons. Because the actual annual production of 480 tons is far above this threshold, the business operates well within a profitable margin, minimizing the risk of financial loss. BEP analysis underscores the relationship between fixed and variable costs, profit, and production volume, providing valuable insights for strategic planning and risk management.

In summary, the salt production business at Universitas Trunojoyo Madura has a well-structured cost system, high profitability, and strong financial feasibility. The detailed breakdown of fixed and variable costs combined with robust revenue and profit figures confirms the economic soundness of the operation. The positive R/C ratio and favorable BEP analysis further support the case of ongoing and possibly expanded salt production efforts at the Universitas Trunojoyo Madura. This comprehensive financial assessment not only validates the current business model but also offers a solid foundation for future growth and development in the salt production sector at Universitas Trunojoyo Madura. Therefore, the managerial implication of this research is to start reopening the Universitas Trunojoyo Madura salt ponds to be used as salt production land to gain profits.

CONCLUSIONS AND RECOMMENDATIONS

Conclusions

Salt is a vital commodity in daily life, serving not only as a fundamental ingredient in cooking but also plays a significant role in various industrial activities. Given its broad range of applications, salt production is essential to meet both household and industrial demands. Salt production generally involves three main stages: land preparation, the production process itself, and harvesting. Each of these stages requires considerable financial investment, and the overall costs are typically influenced by the size of the land area dedicated to salt production.

Based on research conducted on salt pond land at Universitas Trunojoyo Madura, it was determined that salt production in this area is economically feasible. This conclusion is supported by the calculated Revenue-to-Cost (R/C) ratio of 2.25, which indicates that for every IDR100 spent on salt-pond production, the return or receipt is IDR225. This ratio clearly demonstrates that the income generated from salt production significantly exceeds the costs incurred, reflecting profitable business operations.

Further supporting this positive outlook, an analysis of the break-even point (BEP) reveals that salt production at Universitas Trunojoyo Madura will reach its break-even status when producing approximately 177 tons of salt, corresponding to a revenue of IDR299,731,818. This break-even production volume is well below the actual annual salt yield, which is approximately 480 tons, equating to a revenue of IDR816,000,000. This substantial margin above the break-even point underscores the strong financial viability and profit potential of salt production activities at this location.

Recommendations

Given these encouraging findings, it is recommended that Universitas Trunojoyo Madura proceed with the development of a comprehensive salt production plan for its salt pond lands. The positive results of the business feasibility analysis suggest that investing in and expanding salt production operations would be both economically beneficial and sustainable. By doing so, the university can ensure that its salt pond land is utilized effectively, contributing to local economic development and meeting the growing demand for salt in both the domestic and industrial sectors. This strategic move would not only optimize the use of available resources, but also enhance the university's role in supporting regional salt production and supply chains.

ACKNOWLEDMENTS

We thank the LP3MP Universitas Trunojoyo Madura as the research funder, the Padelegan village government, and the Padelegan village community, who have been willing to be resource persons in this research.

FUNDING STATEMENT: This research received funding from LP3MP Universitas Tunojoyo Madura.

CONFLICTS OF INTEREST: The authors declare that they have no conflicts of interest.

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