

FINANCIAL ANALYSIS OF FISHERY PROCESSING BUSINESS IN “IBU SITI RAHMAH” PRODUCTION HOUSE IN MUARA ADANG VILLAGE, PASER REGENCY

Analisis Finansial Usaha Pengolahan Hasil Perikanan Di Rumah Produksi “Ibu Siti Rahmah” Di Desa Muara Adang Kabupaten Paser

Zahrotul Widiah*, Fitriyana, Nurul Ovia Oktawati

Fisheries Social Economic Study Program Mulawarman University

Gn. Tabur Road, Gn. Kelua, Samarinda City, 75242, Indonesia

*Corresponding Author: fitriyana@fpik.unmul.ac.id

(Received June 12th 2024; Accepted December 18th 2024)

ABSTRACT

This study aims to determine the profitability of the business and to determine the financial feasibility of fishery product processing business in the production house “Mrs. Siti Rahmah” with discounted investment criteria (NPV, IRR, and Net B/C) and non-discounted (Payback Period). This research was conducted in October 2023. The determination of respondents is guided by the sample method, with the selected respondents being fishery product processing businesses in the “Mrs. Siti Rahmah” production house. The analytical tools used in this research are cost analysis, revenue, profit, and also financial feasibility analysis with discounted and non-discounted investment criteria. The results showed that the fishery product processing business in the production house “Mrs. Siti Rahmah” in Muara Adang Village, Long Ikis Subdistrict, Paser Regency received Rp 44,880,000/year and earned a profit of Rp 9,775,782/year. From the financial aspect, the fishery product processing business is feasible to run and develop with an NPV value of Rp 50,081,700, IRR of 79%, Net B/C of 2.84 and PP of 1.19 years.

Keywords: financial, fishery products, production of “Mrs. Siti Rahmah”

ABSTRAK

Penelitian ini bertujuan untuk mengetahui keuntungan usaha dan untuk mengetahui kelayakan finansial usaha pengolahan hasil perikanan di rumah produksi “Ibu Siti Rahmah” dengan kriteria investasi terdiskonto (NPV, IRR, dan Net B/C) dan non terdiskonto (*Payback Period*). Penelitian ini dilakukan pada bulan Oktober 2023. Penentuan responden berpedoman pada metode sampel, dengan responden yang dipilih adalah usaha pengolahan hasil perikanan di rumah produksi “Ibu Siti Rahmah”. Alat analisis yang digunakan dalam penelitian ini adalah analisis biaya, penerimaan, keuntungan, dan juga analisis kelayakan finansial dengan kriteria investasi terdiskonto dan non terdiskonto. Hasil penelitian menunjukkan bahwa usaha pengolahan hasil perikanan di rumah produksi “Ibu Siti Rahmah” di Desa Muara Adang Kecamatan Long Ikis Kabupaten Paser memperoleh penerimaan Rp 44.880.000/tahun dan

mendapatkan keuntungan sebesar Rp 9.775.782/tahun. Dari aspek finansial usaha pengolahan hasil perikanan layak untuk dijalankan dan dikembangkan dengan nilai NPV sebesar Rp 50.081.700, IRR sebesar 79%, Net B/C sebesar 2,84 dan PP sebesar 1.19 tahun.

Kata kunci: finansial, hasil perikanan, produksi “Ibu Siti Rahmah”

INTRODUCTION

Paser Regency has an area of 11,603.94 km², with a land area of 10,851.18 km² and a sea area of 725.76 km². Paser Regency is one of the administrative areas in East Kalimantan Province which is divided into 10 sub-districts and consists of 144 villages or sub-districts (Paser Regency in Figures, 2022). According to Yulianti *et al.* (2023), Paser Regency has direct access to sea waters, so its natural resource potential is very diverse, especially in the fisheries sector. These resources come not only from fishing at sea, but also from public waters, as well as various types of fisheries such as marine, freshwater, brackish water and other public water cultivation. This makes Paser Regency one of the regencies that plays an important role in the fisheries industry in East Kalimantan.

Long Ikis District is one of the sub-districts in Paser Regency which is included in the coastal area with an area of around 1,204.22 km². Marine capture fisheries production in Long Ikis District in 2020 was 239.00 tons, decreasing in 2021 by 187.00 tons, while inland pond fisheries production in 2020 was 1,363.60 tons, decreasing in 2021 by 1,342.27 tons (Long Ikis District in Figures, 2022).

Muara Adang Village is one of the villages located in Long Ikis District, Paser Regency, East Kalimantan Province, Indonesia, with an area of 109.74 km². This village is part of a fairly large administrative area in the sub-district. With a significant area size, Muara Adang Village has the potential for further development in various sectors. (Long Ikis District in Figures, 2021). Muara Adang Village is a village located in a coastal area. One of the livelihoods of the people in Muara Adang Village is as fishermen. Most of the fishery products from fishermen are sold raw, but there are also fishery products that are processed to increase their selling value. One strategy to increase the selling value of fish that are considered uneconomical is to implement diversification in product processing. In this way, existing fishery products can be processed into various forms that are more diverse, so that they are more acceptable to the community and in accordance with market preferences. This approach is important to answer the nutritional needs of the community, especially in terms of protein and vitamin intake derived from fish. Through product diversification, it is expected to meet the nutritional demands of the community safely and healthily. The provision of high-quality processed products will not only increase the appeal among consumers, but also contribute to the sustainability of fishery resources. Thus, this effort not only provides financial benefits for business actors, but also improves the nutritional standards accepted by the wider community (Maulana, 2011).

The fishery products used in the processing process at the "Ibu Siti Rahmah" production house include milkfish and shrimp. The source of these raw materials comes from the catch of fishermen who sell them directly to Ibu Siti Rahmah, as well as from the ponds she manages herself. Various types of products produced by Ibu Siti Rahmah include shrimp crackers, fish crackers, and fish crackers. Amplang is a type of fish cracker. Research (Rahim *et al.*, 2019), Amplang is a type of snack made from finely ground fish and mixed with spices, then shaped and fried until crispy. The fishery product processing business at the "Ibu Siti Rahmah" production house is a Home Industry Business which is still in the process of being submitted to meet the halal logo and BPOM standards. The fishery product processing business at the "Ibu Siti Rahmah" production house has been running since 2007. The business run by the processor for approximately 16 years until now can certainly provide benefits to the processor

in increasing household income. In addition, in general, processors are more focused on product sales and tend to ignore in-depth business analysis. Financial analysis is very important to determine whether a business can provide profits and to evaluate the feasibility of developing a business that is being run. This process can only be done by compiling a proper business analysis. Given these problems, the researcher aims to conduct research on the financial analysis of fishery product processing businesses at the "Ibu Siti Rahmah" production house, Muara Adang Village, Paser Regency.

RESEARCH METHODS

Time and Place

This research was conducted from January 2023 to September 2024. The research location was in Muara Adang Village, Long Ikis District, Paser Regency, East Kalimantan Province.

Tools and Materials

The respondents who were the samples in this study were the owners of fishery product processing businesses. The tools used in this study were questionnaires to measure the interview results, stationery used to record the interview results, and laptops to process the data collected during the research process.

Sampling Method

The sampling method used in this study is the case study method. In-depth analysis of one organization or company is the purpose of a case study (Mardikanto & Irianto, 2011). A case study is a method used to provide a comprehensive explanation of the object being studied (Nazir, 2009).

Data Analysis

Cost, Revenue, and Profit Analysis

Production costs are all economic expenses that must be incurred to produce a good. According to Soemarso (1996) as mentioned in Hidayat and Suhandi (2013), production costs are costs that accumulate during a period in the production process. Here is the formula for calculating total costs (Shinta, 2011)

$$TC = TFC + TVC$$

Description:

TC = Total Cost (IDR/Year)

TFC = Total Fixed Cost (IDR/Year)

TVC = Total Variable Cost (IDR/Year)

Revenue is the result of the calculation by multiplying the selling price of the product by the quantity of the product sold (Ely & Darwanto, 2014). The formula used according to Rahardja & Manurung, (2008) is as follows:

$$TR = P_Q \times Q$$

Description:

TR = Total Income (IDR/Year)

P = Price (IDR/kg)

Q = Production Amount (Kg/Year)

Profit or gain is compensation or risk borne by the business, or the value of income minus the total costs incurred by the business. Profit is the difference between total income or sales and total costs (Sumarsono in Rawis *et al.*, 2016). Mathematically it can be written as follows (Rahim & Hastuti, 2007).

$$\pi = TR - TC$$

Description:

- Π = Profit (Rp/Year)
 TR = Total revenue (Rp/Year)
 TC = Total cost (Rp/Year)

Financial Feasibility Analysis

NPV (Net Present Value)

Kadriah (2001) said, Net Present Value (NPV) is the difference between the Present Value of benefits and the Present Value of costs.

$$NPV = \sum_{t=1}^{t=n} \frac{Bt - Ct}{(1+i)^t}$$

Description:

- Bt = benefit in year t (Rp)
 Ct = cost in year t (Rp)
 I = discount rate or interest rate (%)
 n = project age (years)

Criteria:

- If $NPV > 0$, then the project is feasible to run (GO)
- If $NPV < 0$, then the project is not feasible to run (NO GO)

IRR (Intenal Rate of Return)

IRR is the amount of income which is also known as the rate of return or investment rate which states the amount of profit from a project or investment in the form of a percentage (%) at NPV equal to zero (Kuswadi, 2007).

$$IRR = i_1 + \frac{NPV1}{NPV1 - NPV2} (i_2 - i_1)$$

Description:

- $NPV1$ = Net Present Value with positive value (Rp)
 $NPV2$ = Net Present Value with negative value (Rp)
 i_1 = Discount rate that will produce positive NPV (%)
 i_2 = Discount rate that will produce negative NPV (%)

Criteria:

- If $IRR > i$, then the project is feasible to run (GO)
- If $IRR < i$, then the project is not feasible to run (NO GO)

Net B/C Ratio (Net Benefit Cost Ratio)

Net B/C Ratio comparison between the amount of positive NPV and the amount of negative NPV. Net B/C Ratio compares the net benefits and net costs of the years that have been converted into present value (PV), when the numerator is positive and the denominator is negative (Gray *et al.*, 2002).

$$\text{Net B/C Ratio} = \frac{\sum_{t=1}^n \frac{Bt - Ct}{(1+i)^t}}{\sum_{t=1}^n \frac{Ct - Bt}{(1+i)^t}} = \frac{\sum P.V. \text{ Net Benefit (+)}}{\sum P.V. \text{ Net Benefit (-)}}$$

Description:

- Bt = Revenue (benefit) in year i (Rp)
- Ct = Cost in year i (Rp)
- i = Applicable interest rate (Discount rate) (%)
- t = Year i
- n = Project age (years)

Criteria:

- If Net B/C Ratio > 1, then the project is feasible to run
- If Net B/C Ratio < 1, then the project is not feasible to run

Playback Periode

Sunyoto (2014) stated that the payback period is an assessment technique for the investment return period of a project or business. The time required to return the investment capital using cash flow calculated by subtracting all expenses from total income is known as the Payback Period (Kusuma, 2012).

$$\text{Payback Periode} = \frac{\text{Initial Investment}}{\text{Acceptance Period}} \times 1 \text{ year}$$

Description:

Initial investment= initial investment value paid with the value in a project to be run.
Receipt period = net cash receipt value each year during the investment run.

Criteria:

- Payback period value less than 3 years fast return category.
- Payback period value 3-5 years medium return category Payback period value more than 5 years slow category.

RESULT

The results of the research that has been conducted contain details of the costs incurred in the fishery product processing business at the "Ibu Siti Rahmah" production house in Muara Adang Village, Paser Regency as follows:

Investment Costs

Table 1. Recapitulation of Investment Costs

No	Type of Goods / Tools	Amount	Unit Price (Rp/unit)	Total Cost (Rp)
1	Tray Tray	20	150,000	3,000,000
2	Small Stainless Knife	2	5,000	10,000
3	Rinai Gas Stove	1	350,000	350,000
4	Large Pot/Steamer Pot	2	250,000	500,000
5	Wooden spatula	1	5,000	5,000
6	Small Basin	2	10,000	20,000
7	Big Basin	3	40,000	120,000
8	Mortar / Pesticide	1	100,000	100,000
9	200 liter freezer	1	2,500,000	2,500,000
10	Plastic Press Tool 20 cm	1	110,000	110,000
11	Meat Knife	1	80,000	80,000
12	3kg gas cylinder	2	150,000	300,000

13	Scales	1	130,000	130,000
14	Wok	1	60,000	60,000
15	Cutting Board	2	15,000	30,000
16	Oil Dip	1	20,000	20,000
17	Rice Spoon	2	5,000	10,000
18	Eggbeater	1	14,000	14,000
19	Dipper	1	5,000	5,000
20	Smartphone	1	600,000	600,000
21	Stainless Steel Spatula	1	6,000	6,000
22	Large Stainless Knife	2	25,000	50,000
23	Thousand Eyes Fire Stove	1	300,000	300,000
24	Motorcycle	1	14,000,000	6,884,440
25	Refrigerator	1	3,600,000	455,216
26	Showcase	1	1,000,000	1,000,000
Total Investment Cost				17,622,301

Source: Data Primer, 2023

Investment costs are the initial costs incurred by respondents in carrying out production activities before starting a fishery product processing business. Increasing capital goods allows the economy to increase the production of goods and services in the future (Mahira, 2021). Business capital comes from own capital. The investment cost in the fishery product processing business at the "Ibu Siti Rahmah" production house is IDR 17,622,301. Details of investment costs can be seen in table 1.

Fixed Costs

Table 2. Recapitulation of Fixed Costs

No	Description of Operational Costs	Total cost			Contributio n (%)
		(Rp/cycle)	(Rp/month)	(Rp/year)	
A	Fixed Costs				
	Credit	30,000	60,000	720,000	2.05
	Electricity	50,000	100,000	1,200,000	3.42
	fuel	60,000	120,000	1,440,000	4.10
	Transportation	150,000	300,000	3,600,000	10.26
	Depreciation				
	Expense	135,180	270,360	3,244,314	9.24
	Maintenance Fee	60,000	120,000	1,440,000	4.10
	Amount A	485,180	970,360	11,644,314	33.17

Source: Data Primer, 2023

Fixed cost is a cost that does not change in total even though the amount of production produced changes. The cost incurred in the fishery processing business at the production house "Ibu Siti Rahmah" every month is Rp. 970,360 while for each year it is Rp. 11,644,314.

Variable Costs

Table 3. Summary of Variable Costs

No	Description of Operational Costs	Total cost			Contribution (%)
		(Rp/cycle)	(Rp/month)	(Rp/year)	
Prawn crackers					
	Shrimp	100,000	200,000	2,400,000	6.84
	Garlic	7,500	15,000	180,000	0.51
	Masako Chicken 8.5 grams	3,000	6,000	72,000	0.21
	Salt	700	1,400	16,800	0.05
	Sugar	5,400	10,800	129,600	0.37
	Pepsin 50 grams	17,500	35,000	420,000	1.20
	Tapioca flour	80,000	160,000	1,920,000	5.47
	Food coloring	801	1,602	19,224	0.05
	Amount	214,901	429,802	5,157,624	14.69
Fish Crackers					
	Milkfish	55,000	110,000	1,320,000	3.76
	Garlic	7,500	15,000	180,000	0.51
	Masako Chicken 8.5 grams	6,000	12,000	144,000	0.41
	Salt	4,200	8,400	100,800	0.29
	Pepsin weight 250 gr	34,000	68,000	816,000	2.32
	Tapioca flour	176,000	352,000	4,224,000	12.03
	Sugar	18,000	36,000	432,000	1.23
	Water	500	1,000	12,000	0.03
	Food coloring	267	2,670	32,040	0.09
	Amount	302,535	605,070	7,260,840	21.68
Fish Crackers					
	Milkfish	20,000	40,000	480,000	1.37
	Masako Chicken 8.5 grams	4,000	8,000	96,000	0.27
	Sugar	3,600	7,200	86,400	0.25
	Egg	22,500	45,000	540,000	1.54
	Baking soda	1,000	2,000	24,000	0.07
	Tapioca flour	32,000	64,000	768,000	2.19
	Cooking oil	160,000	320,000	3,840,000	10.94
	Garlic	1,500	3,000	36,000	0.10
	Amount	762,036	1,524,072	18,288,864	16.72
	3 kg Gas Refill	45,000	90,000	1,080,000	3.08
	Wages	150,000	300,000	3,600,000	10.26
	Amplang packaging 250 grams	4,160	8,320	99,840	0.28
	500 gram crackers packaging	6,400	12,800	153,600	0.44
	Label	2,400	4,800	57,600	0.16
	Clean water	7,500	15,000	180,000	0.51
	Amount	215,460	430,920	5,171,040	14.73
	Sub Amount B	977,496	1,954,992	23,459,904	69.89
	Total Operating Costs	1,462,676	2,925,352	35,104,218	100.00

Source: Data Primer, 2023

Variable Cost is a cost that is not fixed or can change according to the amount of fishery product processing production at the "Ibu Siti Rahmah" production house. The cost incurred by the respondent per month is IDR 1,954,992 while per year it is IDR 23,459,904. So the operational costs incurred in the fishery product processing business at the "Ibu Siti Rahmah"

production house in Muara Adang Village, Long Ikis District, Paser Regency per month is IDR 2,925,352 for per year it is IDR 35,104,218.

Income and Profit

Table 4. Income from fishery product processing business

Type of Processing	Total Production per cycle (Packaging)	Price (Rp/pack)	Total Revenue (Rp/cycle)	Total Income (Rp/month)	Total Income (Rp/year)
Prawn crackers (500 gr)	10	50,000	500,000	1,000,000	12,000,000
Shrimp crisp Fish (500 gr)	22	35,000	770,000	1,540,000	18,480,000
Amplang Fish (250 gr)	16	37,500	600,000	1,200,000	14,400,000
Amount	48		1,870,000	3,740,000	44,880,000

Source: Data Primer, 2023

Income from fishery product processing business in the production house of “Ibu Siti Rahmah” is all income obtained from the production results sold multiplied by the selling price of each product. Income obtained in the fishery product processing business in the production house of “Ibu Siti Rahmah” is Rp 44,880,000 per year.

Table 5. Profits from fishery product processing businesses

Description	Amount (Rp/year)
Revenue	44.880.000
Total Cost	35.104.218
Profit	9.775.782

Source: Data Primer, 2023

Profit is the net income received by the respondent from the sale of products in a certain period obtained from the receipt minus the total costs incurred by the respondent. The profit obtained by the respondent is Rp. 9,775,782 each year.

Financial Analysis

Table 6. Results of Business Financial Analysis

No	Investment Criteria	Results	Information
A Discounted			
1	Net Present Value (NPV)	Rp. 50,081,700	Worthy
2	Internal Rate of Return (IRR)	79%	Worthy
3	Net Benefit Cost Ratio (Net B/C Ratio)	2.84	Worthy
B Non Discounted			
1	Payback Period (PP)	1.19 years	Worthy

Source: Data Primer, 2023

The results of the calculations obtained show the NPV value (Rp 50,081,700 > 0) which means that the fishery product processing business at the "Mrs. Siti Rahmah" production house in Muara Adang Village is feasible to run and develop. The IRR value (79% > 3.00%) which means that the fishery product processing business at the "Mrs. Siti Rahmah" production house in Muara Adang Village is feasible to run and develop. The Net B/C Ratio value is 2.84. So the Net B/C Ratio value (2.84 > 1) which can be interpreted that the fishery product processing business at the "Mrs. Siti Rahmah" production house in Muara Adang Village is feasible to run and develop. The Payback period value obtained in the fishery product processing business at the "Mrs. Siti Rahmah" production house in Muara Adang Village is 1.19 years or 14.30 months. From the results obtained, it can be interpreted that the business can be run and developed because the business can return the investment capital before the project life of the business ends.

DISCUSSION

In the fishery product processing business at the "Ibu Siti Rahmah" production house, respondents produce twice a month and there are 24 production cycles in one year. In this study, the fishery product processing business has three products, namely shrimp crackers, fish crackers, and fish crackers. In one production cycle, it can produce 5 kilograms of shrimp crackers with a selling price of IDR 100,000/kg, 11 kilograms of fish crackers with a selling price of IDR 70,000/kg, and 4 kilograms of fish crackers with a selling price of IDR 150,000/kg. At the "Ibu Siti Rahmah" production house, the stages carried out in making shrimp and fish crackers are receiving raw materials, making dough, forming dough, steaming, cooling and hardening dough, slicing, drying and packaging. Meanwhile, receiving raw materials, making dough, printing dough, frying, and packaging are the stages carried out in making fish crackers. The total cost incurred by the respondents in the fishery product processing business at the production house of "Ibu Siti Rahmah" is Rp 35,104,218/year. The gross income received from the business is Rp 44,800,000/year. The profit received from the business is Rp 9,775,782/year.

The financial analysis used in this study is a financial analysis with discounted investment criteria consisting of NPV (Net Present Value), IRR (Internal Rate of Return), Net B/C Ratio (Net Benefit Cost Ratio) and non-discounted investment criteria, namely PP (Payback Period).

NPV is the difference between benefits and costs that have become the present value. The results of the calculations obtained show the NPV value (IDR 50,081,700 > 0) which means that the fishery processing business at the "Ibu Siti Rahmah" production house in Muara Adang Village is feasible to run and develop because it can generate profit value (net benefit). The results of this study are in line with previous research conducted by Rafikah *et al.*, (2022) which proves that if the NPV value > 0 then the business is said to be feasible to continue or go project.

IRR is the ability of capital to return benefits in the form of discount factors with criteria, if IRR > OCC then the business is feasible to run and develop. So the calculation results show the IRR value (79% > 3.00%) which means that the fishery product processing business at the "Ibu Siti Rahmah" production house in Muara Adang Village is feasible to run and develop. The results of this study are in line with previous research conducted by Rafikah *et al.*, (2022) which proves that if the IRR value > OCC then the business is said to be feasible to continue or go project.

Net B/C Ratio is a comparison between the benefits that have been run present value which is positive with the net value that is present valued which is negative. The criteria for the Net B/C Ratio value, if the Net B/C Ratio > 1 then the business is feasible to run and develop. So the Net B/C Ratio value (2.84 > 1) which can be interpreted that the fishery product processing business at the "Ibu Siti Rahmah" production house in Muara Adang Village is

feasible to run and develop. The results of this study are in line with previous research conducted by Rafikah *et al.*, (2022) which proved that if the Net B/C Ratio value is > 1 , the business is said to be feasible to continue or go project.

Payback Period is a value that shows the period of time for how long a business can return the investment capital costs. The results of the Payback period value obtained in the fishery product processing business at the "Ibu Siti Rahmah" production house in Muara Adang Village are 1.19 years or 14.30 months. From the results obtained, it can be interpreted that the business can be run and developed because the business can return the investment capital before the project life of the business ends. The results of this study are in line with previous research conducted by Rafikah *et al.*, (2022) which proves that if the Payback period value or can return the investment cost before the project life ends, the business is said to be feasible to continue or go project.

The level of marketing channels used in the product has two marketing channels, namely the zero-level marketing channel where the processor sells its products directly to consumers, and the first-level marketing channel where the processor sells its products indirectly or through intermediaries, namely retailers.

The obstacles faced in the fishery product processing business at the "Ibu Siti Rahmah" production house are the lack of promotion that can hinder the development of the business, seasonal raw materials that cause delays in the production process, and weather factors where the drying process only uses the hot sun.

CONCLUSION

The fishery product processing business at the "Ibu Siti Rahmah" production house in Muara Adang Village, Paser Regency is profitable and feasible to run and develop, which can be seen through the NPV (Net Present Value) indicator, IRR (Internal Rate of Return), Net B/C Ratio (Net Benefit Cost Ratio) and non-discounted investment criteria, namely PP (Payback Period).

ACKNOWLEDGEMENTS

The author would like to thank the Faculty of Fisheries and Marine Sciences, Mulawarman University as a place to gain knowledge. In addition, the author would like to thank Mrs. Siti Rahmah as the owner of the fishery product processing business who has allowed the author to conduct research activities.

REFERENCES

- BPS. (2022). *Kabupaten Paser dalam Angka 2022*. BPS Kabupaten Paser.
- BPS. (2021). *Kecamatan Long Ikis dalam Angka 2021*. BPS Kecamatan Long Ikis .
- BPS. (2022). *Kecamatan Long Ikis dalam Angka 2022*. BPS Kecamatan Long Ikis.
- Ely, A. (2015). Analisis Kelayakan dan Strategi Pengembangan Budidaya Rumput Laut di Kabupaten Seram Bagian Barat (*Doctoral dissertation*, Universitas Gadjah Mada).
- Gray, C., Simanjuntak, P., Sabu, L. K., Maspaitella, P. F., & Varley, R. C. (2007). *Pengantar Evaluasi Proyek, Edisi Kedua*. Jakarta: PT. Gramedia Pustaka Utama.
- Hidayat, L., & Salim, S. (2013). Analisis Biaya Produksi dalam Meningkatkan Profitabilitas Perusahaan. *Jurnal Ilmiah Manajemen Kesatuan* , 1(2), 159-168.
- Irianto., Heru., & Mardikanto, T. (2011). *Metode Penelitian dan Evaluasi Agribisnis*. Surakarta: Jurusan/Program Agribisnis UNS Solo.
- Kusuma, P. T. (2012). Analisis Kelayakan Finansial Pengembangan Usaha Kecil Menengah (UKM) Nata De Coco di Sumedang, Jawa Barat. *Jurnal Inovasi dan Kewirausahaan*, 1(2), 113-120.

- Kuswadi. (2007). *Analisis Keekonomian Proyek*. Yogyakarta: PT. Andi.
- Mahira, A. (2021). Analisis Investasi Perahu Sandeq Bermaterial Kayu dengan Wilayah Operasional Pangali-ali Parompong. *Skripsi*. Fakultas Teknik, Universitas Hasanuddin, Gowa.
- Maulana, M. S. (2011). *Teknologi Agroindustri Pengolahan Fillet Ikan*.
- Nazir, M. (2009). *Metode Penelitian*. Jakarta: Graia Indonesia.
- Rafikah., Fitriyana., & Haqiqiansyah, G. (2022). Analisis Kelayakan Usaha Amplang Studi Kasus UD. Ogi Passompe di Desa Jone Kecamatan Tanah Grogot Kabupaten Paser. *Jurnal Pembangunan Perikanan dan Agribisnis*, 9(2), 82-88.
- Raharja, P., & Manurung, M. (2008). *Teori Ekonomi Makro*. Jakarta: LPFEUI.
- Rahim, A. R., Bela, N. D., Mutmainnah, M., & Araswati, Z. (2019). Sosialisasi dan Implementasi Pembuatan Krupuk Ikan Bandeng Desa Karanggeneng Kec Karanggeneng Kab Lamongan. *DedikasiMU (Journal of Community Service)*, 1(1), 1-10.
- Rahim, A., & Hastuti, D. (2007). *Ekonomi Pertanian*. Jakarta: Penebar Swadaya.
- Rawis, J. E., Panelewen, V. V., & Mirah, A. D. (2016). Analisis Keuntungan Usaha kecil Kuliner Dalam Upaya Pengembangan UMKM di Kota Manado. *Jurnal EMBA*, 4(2), 106-119.
- Shinta, A. (2011). *Ilmu Usaha Tani*. Malang: UB Press.
- Silalahi, U. (2012). *Metode Penelitian Sosial*. Bandung: PT. Refika Aditama.
- Yulianti, Gunawan, B. I., & Elly, P. (2023). Analisis Pendapatan Usaha Budidaya Tambak di Desa Petiku Kecamatan Long Kali Kabupaten Paser. *Jurnal Pembangunan Perikanan dan Agribisnis*, 10(1), 1-9.