

# Revenues Analysis Catching Cuttlefish in the Pala Island of Pangkep District

Patang

Lecturer at the Faculty of Engineering State University of Makassar

**Abstract-** This study aims to know level of income of fishermen who operate businesses catching cuttlefish on the island of Pala Pangkep District. This research is a descriptive study was conducted on the island of Pala Pangkep, Indonesia in October to December 2014. Data were collected consist of primary and secondary data and analyzed with analysis of revenues, R/C ratio and descriptive. The results showed that the cuttlefish fishing effort undertaken by fishermen on the island of Pala Pangkep District are in the category of profitable and feasible to be developed with a profit 4.845 million / year and the value of R / C ratio of 4.33, but this business to get the constraints that can only be operated optimally on the full moon with simple equipment.

**Index Terms-** cuttlefish, income, fishermen, feasibility

## I. INTRODUCTION

Fishing effort in the sea have a very high risk, so it requires careful consideration in planning. One special consideration is to assess fishing unit related to, better technically and economically (Silaban, 2013)[1].

Cuttlefish (*Loligo* spp.) Are soft animals (Phylum mollusca) are favored because they contain high nutritional value (Triharyuni and Puspasari, 2012)[2]. The next (Hamzah and Pramuji, 1997)[3] states cuttlefish classified animals neuritic the spreading of the surface layer to a certain depth, live clustered and interested in the lights (be fototaksis positive), as well as endemic area covering the waters of the western Pacific, the Philippines, and Indonesia. In the activities of catching cuttlefish necessary information effectively so that the catch can achieve maximum results (Zainuddin, 2006)[4], so that the fishermen can increase their catch as well as more efficient in sail and mitigate the consequences of high fuel (Prasetyo *et al.*, 2014 ) [5]. To know the feasible of a business, including cuttlefish fishing effort that needs to be calculated level of revenues or income received by the business people.

This study aims to know level of income of fishermen who operate business catching cuttlefish on the island of Pala Pangkep District.

## I. RESEARCH METHODS

### *Design of the study*

This research is descriptive method in researching the status of a group of people, an object, a set of conditions or system of thought or a class of events in the present (Nasir, 1988)[6].

### *Date and place of*

The research was conducted on the island of Pala Pangkep District, Indonesia from October to December 2014.

### *Method of data collection*

The data used in this study consisted of primary data and secondary data. Primary data is data obtained by way of direct interviews in the field with several speakers, namely fishermen and vessel owners. Primary data collected in this study, namely income and costs in the operation of cuttlefish fishing equipment. Respondents making process is done by sampling or sampling. Sample or example is part of the population which is considered to represent the population (Simamora, 2002)[7]. The sampling technique was purposive sampling method, namely how sampling is not random or researchers consider samples taken have the information needed for the study. Respondents amounted to 7 people, the squid fishing nets arresting cuttlefish and reside in Pala Pangkep District. The selection of respondents is done with the consideration that the respondents were able to communicate well in filling the questionnaire and experienced in the operation of squid fishing fishing equipment.

### *Analysis of the data*

Analysis of the data used in this research is the analysis of income and revenue cost ratio analysis (Sugiarto *et al.*, 2002)[8] with the following formula:

$$\pi = TR - TC$$

Where:

$$\pi = \text{Profit}$$

$$TR = \text{Total Revenue}$$

$$TC = \text{Total Costs}$$

Criteria of :

If the total receipts > total costs the business is said to be profitable and feasible to proceed.

If total revenue = total costs the business to say no profit and no loss (break-even).

If the total receipts < total costs the business said losses and unfit to continue.

Then analyzed the revenue cost ratio used to determine the extent to which the results obtained from business activities for a certain period sufficiently profitable (Sugiarto *et al.*, 2002)[8]. The formula used is:

$$\pi = \frac{TR}{TC}$$

Criteria of :

If the  $R / C > 1$  = business activities of the profit that the business is feasible to proceed.

If the  $R / C < 1$  = the loss of business activities that are not feasible to proceed.

If the  $R / C = 1$  =business activities do not provide gain or loss (break-even).

## II. RESULTS AND DISCUSSION

The results showed cuttlefish fishing effort by fishermen on the island of Pala Pangkep District categorized as favorable (Table 1). Results of interviews with respondents also showed that the cuttlefish fishing effort undertaken by fishermen on the island of Pala Pangkep District not the primary livelihood, but it is a byproduct of fishing effort to the main livelihood as fishermen fishing. This effort is only done when the full moon which at that time very few fish catches.

Catching cuttlefish in touch with the abundance of cuttlefish. But not only the abundance of cuttlefish affecting cuttlefish fishing season, waters and weather conditions also affect catches of cuttlefish (Chodriyah and Hariati, 2010)[9].

**Table 1. Analysis of Operating Revenues Catching squid fisherman of Pala Island**

No	Description	Costs (Rp./Year)
1.	Variable costs	
	a. Taci	30.000,-
	b. Feed false	225.000,-
2.	Fixed cost	
	a. Depreciation instrument (dugout canoe)	1.200.000,-
3.	Income	6.300.000,-
4.	Total Costs	1.455.000,-
5.	Revenue	4.845.000,-
6.	R/C Ratio	4.33

**Source: Primary Data Once processed, 2014**

In Table 1 shows that for cuttlefish fishing effort undertaken by fishermen on the island of Pala Pangkep District using materials and fishing gear are very simple that only consist of citation and false bait that can be easily obtained. Another tool used was a boat without a motor boat which has up to 5 years of age economically.

Based on the analysis business designation that cuttlefish fishing effort on the island of Pala in the category of profitable revenue of Rp 4.845 million / year. This effort includes profitable, but suffered a constraint that is only operated during the full moon where fishing gear other is not used anymore because the fish in general is an organism that is categorized pototaksis positive or attracted to the light, so that the full moon light spread so hard to do fishing and just catching cuttlefish appropriate.

The results also showed that the income of fishermen catcher cuttlefish on the island of Pala Pangkep District smaller than the fishermen who work as laborers in catching squid fishermen in PPS of Muara Angke Rp 15.000 to Rp 20.000 or approximately Rp 7.200.000 to Rp 5.400.000,-/year, and

fishermen in PPS of Belawan amounted Rp. 30.000 to Rp. 35.000 per day (Yosella, 2014)[10].

Results of the analysis of R/C ratio is also classified as very high at 4.33 which means business is feasible to be developed as more than 1 (one), or in other words each pay Rp. 1, it will generate a value of Rp 4.33 or profit of Rp.3.33. Value R/C ratio obtained in this study was higher than the results of research conducted by Silaban (2013)[1] who conducted research on the assessment of the technical and economic unit catching nets squid in PPP Bajomulyo Pati, Central Java with a value of R/C ratio of 1.04.

## III. CONCLUSION

Fishing of cuttlefish effort undertaken by fishermen on the island Pala of Pangkep District classified profitable and feasible to be developed with a profit Rp. 4.845.000,- million/year and the value of R/C ratio of 4.33, but these efforts have problems that can only be operated optimally in full moon with simple equipment.

## REFERENCES

- [1] Silaban, IN 2013. Technical and Economic Assessment Unit Net Catching squid in PPP Bajomulyo Pati, Central Java. FPIK. IPB, Bogor. 27 p.
- [2] Triharyuni, S and R. Puspasari. Catching Season 2012. Production and Squid (Loligo spp.) Waterway Rembang (Central Java). Journal of Fisheries Litbanhg Indonesia Vol. 18 No. 2: 77-83
- [3] Hamzah M.S, and Parmudji. 1997. Effect of Season To Catch squid (Uretetuthis Barchi, REHDER) Using Multiple Capture Device Taliabu Waterway West, North Maluku. Indonesian Fisheries Symposium Papers II. Marine Resources Research and Development, Center for Oceanography - LIPI, Ambon.
- [4] Zainuddin, M. 2006. Applications of Geographic Information Systems in Fisheries and Marine Research. Presented at the Workshop on Research Agenda, COREMAP II Kab. A screen, 9 to 10 September, 2006.
- [5] Prasetyo, B. A., S. Hutabarat., And A. Hartoko. 2014. Spatial distribution of squid (Loligo spp.) With variable Sea Surface Temperature and Chlorophyll-a Modis Aqua Satellite Data in the Java Sea Strait Up Karimata. Diponegoro Journal of Maquares Vol. 3 No. 1: 51-60
- [6] Nasir, M. 1988. Research Methodology. Jakarta (ID): Ghalia Indonesia. 63-68
- [7] Simamora, H. 2002. Aura Brand Jakarta (ID): PT. Gramedia Pustaka Utama. 40 p.
- [8] Sugiarto, T. Herlambang., Brastoro., R. Sudjana and S. Kelana. 2002. Microeconomics: A Comprehensive Policy. Jakarta (ID): Scholastic Press. 514 p.
- [9] Chodriyah, U. and T. Hariati. 2010. Small Pelagic Fishing Season in the Java Sea. Indonesian Fisheries Research Journal. 16 (3): 217-223.
- [10] Yosella, F. 2014. Optimized Operations Net Catching squid in PPI Muara Angke. Essay. Department of Fisheries Resource Utilization Faculty of Fisheries and Marine Sciences Institute of Agriculture, Bogor

## AUTHORS

**First Author** – Patang. Lecturer at the Faculty of Engineering State University of Makassar. Makassar South Sulawesi, Indonesia. email : ppatang@yahoo.co.id