

## FEASIBILITY OF CATFISH CHIPS BUSINESS IN KAMPUNG LELE BOYOLALI

Octaria Nur Rahmadhani<sup>1\*</sup>, Retna Dewi Lestari<sup>2</sup>, Bimoseno Sefrian<sup>3</sup>

Duta Bangsa University<sup>1,2,3</sup>

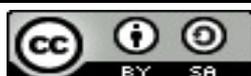
\*Correspondence Email: [nroctaria@gmail.com](mailto:nroctaria@gmail.com)

### ABSTRACT

*The diversification of the Kampung Lele business through catfish chips products aims to increase the income of farmers and absorb the relatively large fresh catfish sizes, namely 1 kg containing 3, 4, 5 that are not sold. In reality, catfish chips products face obstacles in marketing because there is no team that connects the sale of catfish chips products outside Java and people do not buy catfish chips every day, so it has not been able to increase the income of catfish farmers in Kampung Lele Boyolali. The purpose of this study is to determine the market potential of catfish chips in Kampung Lele Boyolali. The analytical methods used were Return on Investment (ROI) and marketing margin analysis. The ROI analysis showed an efficiency of 79%, and a marketing margin of Rp 12,000 per three catfish chip variants. Therefore, catfish chip production in Kampung Lele Boyolali has the potential to be further developed with a market development strategy that accommodates and is appropriate for the future.*

### KEYWORDS

Farm, Market development strategy, Market potential and Markert strength



This work is licensed under a Creative Commons Attribution-ShareAlike 4.0 International

## INTRODUCTION

Freshwater fisheries in Indonesia offer promising business prospects and significant growth potential. Catfish farming has become a well-known business among Indonesians. The growth of catfish farming is driven by increasing domestic market demand and public awareness of the importance of animal protein consumption. The fish grow relatively quickly and are easy to maintain. The catfish village in Boyolali Regency serves as a role model for farmers interested in cultivating catfish in Central Java Province. The development of catfish farming in Indonesia has experienced drastic growth, with Central Java Province, a major supplier of catfish, demonstrating its potential.

Based on Central Java Statistics Agency (2025), Boyolali Regency is the second highest supplier of catfish in Central Java. Seeing the high potential of catfish production, Kampung Lele in Boyolali has become one of the cultivation centers, the majority of which are from local farmers. Kampung Lele in Boyolali has been operating for 27 years as a

catfish farmer, utilizing rice fields to create ponds. Not only focusing on catfish cultivation, but also diversifying into processed catfish chips. The purpose of diversification of catfish chips products is to increase the economic value in Kampung Lele Boyolali starting in 2017. In addition to increasing economic value, the reason for diversifying catfish chips products is that catfish farmers experience difficulties when marketing fresh catfish in relatively large sizes, namely 1 kg containing 3, 4, and 5. It has been running for 8 years in diversifying catfish chips products, however, there are obstacles in marketing catfish chips because there is no team that connects sales of catfish chips products outside Java and people do not buy catfish chips every day, so it has not been able to increase the income of catfish farmers in Kampung Lele Boyolali. Even though catfish chips products have large market potential when knowing the right marketing strategy. Based on this background, a study is needed regarding "Catfish Chips Market Development Strategy to Increase Farmers' Income in Kampung Lele Boyolali". This research needs to be reviewed immediately because it analyzes efforts to increase the contribution of catfish chips as a processed food that provides great benefits in Kampung Lele.

## RESEARCH METHOD

This research was conducted in July 2025. The research location was in Kampung Lele, Tegalrejo Village, Sawit District, Boyolali Regency with a purposive sampling method based on certain considerations and adjusting the research objectives. The data analysis methods used in this study are ROI ratio analysis and marketing margin analysis. ROI analysis is a profitability ratio used to measure the efficiency and feasibility of a company's investment by comparing the net profit generated to the total cost of capital invested (Arma *et al.*, 2021). A systematic ROI calculation can be done using the following formula:

$$ROI = \frac{\text{net profit after tax}}{\text{total assets}} \times 100\%$$

Marketing margin analysis is the difference between the price that must be paid to the first seller and the price that must be paid by the last buyer (Kasus *et al.*, 2021). The marketing margin measurement method proposed by Tarigan *et al.*, (2024) with the following formula:

$$\begin{aligned} \text{Marketing margin} &= MP = Pr - Pf \\ \text{Marketing cots} &= Bp = Bp1 + Bp2 \dots + Bpn \\ \text{Profit margin} &= Pm = M - Mc \end{aligned}$$

Description =

Mp	= Marketing margin (Rp/kg)
Pr	= Retail price (Rp/kg)
Pf	= Producer price (Rp/kg)
Bp	= Marketing cost (Rp/kg)
Bpn	= Cost per institution
Pm	= Profit margin
M	= Marketing margin
Mc	= Marketing cost

## RESULT AND DISCUSSION

Return on Investment (ROI) is a profitability ratio used to assess a company's finances based on its financial statements and profits. It measures the ability to determine net profit from the total funds in the company's assets. A high ROI indicates a good company's performance. A low ROI indicates a low ROI to assess company effectiveness (Mandalika and Supartiningsih, 2024). ROI can also be used to determine the percentage return on investment in one month of catfish chip production, evaluate production, and evaluate investment efficiency. Kampung Lele Boyolali has three catfish chip producers, so the ROI value for a month's return on investment in Kampung Lele Boyolali can be formulated as follows:

$$\text{ROI} = \frac{\text{Net profit after tax}}{\text{Total assets}} \times 100\% = \frac{\text{Rp } 9.265.333}{\text{Rp } 11.674.000} \times 100\% = 79,36\% = 79\%$$

From the ROI details above, it can be concluded that the ability of catfish chip producers in Kampung Lele Boyolali to return capital can affect the performance of catfish chip production. If the return on capital ability can be seen from a high percentage, it indicates that catfish chip production is efficient. Meanwhile, if the return on capital ability percentage is low, it indicates that catfish chip production is inefficient. Based on the ROI details above, catfish chip producers in Kampung Lele Boyolali obtained 79%, concluding that the return on capital for each month of producing catfish chips is IDR 148,000 obtained from net profit after tax. The return on capital rate can be said to be quite high at only 79%, so catfish chip production in Kampung Lele Boyolali is classified as efficient. If the ROI value is more than 50%, catfish chip products are classified as efficient in terms of return on investment in one month of producing catfish chips, evaluating production, and efficiency in terms of investment use (Mandalika and Supartiningsih, 2024). Return on Investment (ROI) is a ratio that produces the total assets used in a company, and can measure the effectiveness of management in managing its investments (Bayu Setiawan, Supardi, 2024). One of the steps to ignite company performance is a feasibility study that analyzes performance and results to determine whether the company is feasible or not for future implementation (Yulianti *et al.*, 2025).

The marketing margin is the difference in price between producers (farmers) and end consumers. The marketing margin value depends on several factors, including the number of marketing institutions involved, increasing retail demand, and fluctuations in market input prices. The marketing margin is the difference between the selling price and the purchase price at each marketing institution (Prayoto *et al.*, 2022). Therefore, a systematic analysis of the marketing margin can be seen in Table 1.

Table 1. Marketing Margin for Catfish Chips in Kampung Lele Boyolali  
Data Source: Processed Primary Data, 2025

No	Catfish Chips Products	Pr	Pf	MP
1.	Meat	Rp 17.000	Rp 12.000	Rp 4.000
2.	Skin	Rp 18.000	Rp 13.000	Rp 5.000
3.	Fins	Rp 18.000	Rp 15.000	Rp 3.000
<b>Total Marketing Margin</b>				<b>Rp 12.000</b>

Based on Table 1, it can be seen that the channel is only for resellers, but there are three types of catfish chips. Catfish meat chips earn a marketing margin of IDR 4,000, catfish skin chips earn a marketing margin of IDR 5,000, and catfish fin chips earn a marketing margin of IDR 3,000. Therefore, the total marketing margin from the purchase price of catfish chip producers in Kampung Lele Boyolali to the end consumer can reach

IDR 12,000 for each of the three catfish chip variants. Each price paid by the marketing agency is different, because they want to profit from each product. One of the marketing costs is the distance between catfish chip producers and consumers, which causes differences in profits (Prayoto et al., 2022). Companies need distribution channels to efficiently deliver goods from producers to end consumers. If a company employs appropriate, effective, and efficient distribution channel strategies, its delivery performance can be assessed based on how quickly products reach consumers (Soi et al., 2025). The marketing process for catfish chips also requires marketing costs, so that the catfish chips reach the end consumer (Yunita et al., 2024). The marketing cost for resellers to purchase catfish chips in Kampung Lele Boyolali is IDR 1,000, and the marketing margin profit can be seen in table 2.

Table 2. Marketing Profit Margin for Catfish Chips in Kampung Lele Boyolali  
Data Source: Processed Primary Data, 2025

No	Catfish Chips Products	M	Mc	Profit
1.	Meat	Rp 4.000	Rp 1.000	Rp 3.000
2.	Skin	Rp 5.000	Rp 1.000	Rp 4.000
3.	Fins	Rp 3.000	Rp 1.000	Rp 2.000
<b>Total Marketing Profit</b>				<b>Rp 9.000</b>

Based on table 2 it can be seen that the marketing profit margin obtained by the reseller is IDR 9,000, which is obtained from each marketing margin for catfish chips products, then subtracted by marketing costs to obtain the total marketing profit margin. The almost identical marketing profit margin for catfish chips products indicates that their performance is quite effective in managing costs and prices (Arida et al., 2025). Marketing channels are carried out by considering and carrying out them efficiently and effectively, which describes the marketing conditions of the company (Najah et al., 2024).

## CONCLUSION

From the results of the ROI analysis calculation, it can be seen that the ROI value for catfish chips producers in Kampung Lele Boyolali is 79%, concluding that the return on capital for each month of producing catfish chips is IDR 148,000 obtained from total assets. The rate of return on capital can be said to be quite high at only 79%, so that the production of catfish chips in Kampung Lele Boyolali is classified as efficient. If the ROI value is more than 50%, the catfish chips product is classified as efficient in terms of return on investment in one month of producing catfish chips, evaluating production, and efficiency in terms of investment use.

From the results of the marketing margin analysis calculation, it can be seen that the marketing margin value obtained is IDR 12,000/three variants of catfish chips, marketing costs of IDR 1,000, and marketing profit margin of IDR 9,000/three variants of catfish chips. Seeing from the results obtained, it shows that the performance is quite effective and worth trying in managing costs and prices, so that the production of catfish chips in Kampung Lele Boyolali has the potential to be developed further with a market development strategy that accommodates and is appropriate for the future.

## REFERENCES

- BPS Indonesia, Statistics Indonesia. "Catalog: 1101001." Statistics Indonesia 2023, vol. 1101001, 2025, p. 790, <https://www.bps.go.id/publication/2020/04/29/e9011b3155d45d70823c141f/statistik-indonesia-2020.html>.
- Mandalika, Eka Nurmindia Dewi, and Ni Luh Sri Supartiningsih. "Analysis of Break Even Point and Return on Investment of Soybean Farming in Dryland Areas of Central Lombok Regency." *Agrimansion Journal*, vol. 25, no. 1, 2024, pp. 217–26, <https://doi.org/10.29303/agrimansion.v25i1.1636>.
- Prayoto, Prayoto, et al. "Analysis of Milkfish Marketing Channels and Margins in Sedati District, Sidoarjo Regency, East Java." *Chanos Chanos*, vol. 20, no. 1, 2022, p. 227, <https://doi.org/10.15578/chanos.v20i1.10662>.
- Arida, Ririn Wahyu, et al. "Evaluation of Ornamental Fish Marketing Margins Through Marketing Channels and Social Media." *SEIKO: Journal of Management & Business*, vol. 8, no. 1, 2025, p. 21, <https://doi.org/10.37531/sejaman.v8i1.8122>.
- Arma, S. A. M., Ridho, N. A. R., Safitri, D. T., & Raihan, M. F. (2021). Comparative Analysis of Return on Investment (ROI) in Assessing the Financial Performance of the Customer Cyclical Sector Listed on the Indonesia Stock Exchange in 2016-2020 (Study on PT Surya Citra Media Tbk (SCMA)). *Journal of March Management Research*, 4(1), 90–99. <https://www.scm.co.id/>
- Bayu Setiawan, Supardi, H. R. (2024). Analysis of ROA, ROI, and Profit Margin in Measuring Financial Performance at Nurussyifa Hospital, Kudus. *Journal of Islamic Economics and Accounting Volume*, 5(1), 23–28.
- Case, S., Sawa, B., & Negeri, D. I. (2021). Marketing Margin Analysis of Sago Products. *Agrilan*, 9 NO 1, 32–44.
- Najah, S., Ivan's, E., & Sari, N. A. (2024). Analysis of Margins and Marketing Channels for Corn Agribusiness in Purbolinggo District, East Lampung Regency. *Agribios*, 22(2), 318. <https://doi.org/10.36841/agribios.v22i2.5503>
- Soi, Y., Christine, A., Sheyoputri, A., & Azuz, F. (2025). Distribution Channels and Marketing Margins of Moke Maumere in Makassar City. 3, 196–201. <https://doi.org/10.56326/pallangga.v3i2.5704>
- Village, W., District, N. T., Lamindo, R., Tarigan, W., Pakasi, C. B. D., Porajouw, O., Program, M., Agribusiness, S., Agriculture, F., Ratulangi, U. S., Program, D., Agriculture, F., & Ratulangi, U. S. (2024). AT+3+DRAFT+ARTICLES+20\_2+S1+AN+Ridho+Tarigan. 20, 423–430.
- Yulianti, D., Ulfah, L., Lubis, lega reskita, & Haki, H. (2025). *Civil Talent Journal*. *Civil Talent Journal*, 8(1), 430–439. <https://doi.org/10.33087/talentsipil.v8i2.945>
- Yunita, S., Suyatno, A., & Suharyani, A. (2024). Pineapple Marketing Efficiency in Padu Banjar Village, Simpang Hilir District, Kayong Utara Regency. *Journal of Agricultural Economics and Agribusiness*, 8(3), 1134–1145. <https://doi.org/10.21776/ub.jepa.2024.008.03.26>