

## **Analysis of Marketing Channels For Koi Fish (*Cyprinus Carpio*) at The Freshwater Ornamental Fish Promotion Center (Case Study, Rawalumbu District, Bekasi City)**

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### **ABSTRACT**

**Keywords:**

Marketing Channel Analysis; BCR; Koi Fish; Marketing Margin.

This research aims to analyze the marketing channels for koi fish at the UPTD Freshwater Ornamental Fish Promotion Center in Rawalumbu District, Bekasi City. This research was carried out from March 2024 to April 2024 using the snowball sampling method or snowball technique. The parameters analyzed are marketing channels, marketing margins, revenue and cost balance (BCR), and transportation techniques for koi fish. This koi fish marketing channel analysis was carried out at the UPTD Freshwater Ornamental Fish Promotion Center in Rawalumbu District, Bekasi City. Based on the research results, the results showed that the koi fish marketing channel pattern at the UPTD Freshwater Ornamental Fish Promotion Center in Rawalumbu District, Bekasi City has two fish marketing channel patterns. In the channel I pattern, it consists of (cultivators, collectors, wholesalers, retailers and final consumers), channel II (cultivators, collectors, retailers and final consumers). The most efficient marketing channel of the two existing channels is channel II, seen from its revenue and cost balance (BCR) value of 1.3, It is recommended that further research be carried out in this research using a different problem approach method so that information about koi fish marketing can be used better.

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### **INTRODUCTION**

Fisheries is an economic sector that has potential and plays an important role in the Indonesian economy. One area of fisheries that has great potential and is still not well developed is the ornamental fish marketing business. Marketing is an important stage in developing a business, especially in ornamental fish. Ornamental fish are one of the fisheries commodities which are potential trade commodities at home and abroad. One of the fish that is popular in freshwater fish businesses is the koi fish. Koi fish are a type of goldfish strain. Since its first appearance, koi fish are

still classified as a type of ornamental fish which is at a relatively expensive price level. Based on data from the West Java Province Maritime and Fisheries Service (DKP) (2021), the number of koi fish production reached 72,782,746 individuals. Due to the relatively large production volume, marketing channels are needed to determine the efficiency of a marketing effort. In the koi fish business at the UPTD Freshwater Ornamental Fish Promotion Center, Rawalumbu District, Bekasi City, there are problems being experienced, namely marketing and promotional channel activities. Therefore, it is necessary to study further to find out the marketing channel analysis at the UPTD Ornamental Fish Promotion Center.

## **LITERATURE REVIEW**

Based on research by Elvin et al (2018) who conducted an analysis of the marketing of ornamental koi fish in Babakan Village, Ciseeng District, Bogor Regency, and analyzed marketing efficiency based on marketing margin, farmer's share and the ratio of profit to cost of ornamental koi fish. The research results show that the marketing institutions involved include cultivators, village traders, shop traders and suppliers with exchange, physical and facility functions in nine koi marketing channels in Babakan Village.

Based on research by Silalahi et al (2018), they conducted research on marketing analysis of koi fish at the ornamental fish market on Jalan Sumenep, Central Jakarta. Method The sampling technique used was a census. The research results were analyzed descriptively, there were two patterns of marketing channels for koi fish at the Ornamental Fish Market on Jalan Sumenep, Central Jakarta. Channel 1 consists of cultivators, collectors, traders and consumers. Channel 2 consists of cultivators, traders and consumers and from the BCR results obtained, channel 1 is a channel that is worthy of development because the results show the BCR is  $\geq 1$ .

Based on research, Siscawati (2023) conducted research on marketing analysis of koi fish cultivation at Buana Koi Farm, Kedu District, Temanggung Regency. Qualitative research method, data collection using interview techniques and observation of the marketing of koi fish cultivation. The research results show that there are three channels, namely (1) producers - cultivators - consumers. (2) producers - traders - collectors - final consumers, and (3) producers - final consumers.

## **METHOD**

The research location will be carried out at the UPTD Freshwater Ornamental Fish Promotion Center, Rawalumbu District, Bekasi City. Data collection was carried out from kohaku koi fish business owners located at the Rawalumbu District Freshwater Ornamental Fish Promotion Center. This research was carried out for one month starting in March 2024.

The method in this research used case study techniques with qualitative and quantitative descriptive analysis. The types of data used are primary data and secondary data. Primary data was collected by conducting structured observations and interviews with a number of respondents based on previously prepared questionnaires. Valid for cultivators, collectors, wholesalers, retailers and final consumers. Secondary data is statistical data related to koi fish marketing from the freshwater ornamental fish promotion center, Rawalumbu District, Bekasi City to complement various information obtained from primary data. Then the data is processed using Microsoft Excel. Sampling to obtain marketing channel data representing cultivators, collectors, wholesalers, retailers and final consumers uses the Snowball sampling method.

- *Balance analysis of revenue and costs or (BCR)*

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

Information:

BCR = Benefit and Cost Ratio,

TR = Total Revenue (Rp)

TC = Total Cost (Total Cost) (Rp)

- *Marketing Margin Analysis*

$$MP = Hk - Hp = BM + K$$

Information:

MP = Marketing margin (Rp/head)

Hk = Price at Consumer level (Rp/head)

HP = Price at Producer level (Rp/head)

BM = Marketing Costs (Rp/head)

K = Marketing Institution Profit (Rp/head)

## **RESULT AND DISCUSSION**

### **1. Marketing Channel Patterns**

#### **Marketing Channel I**

Marketing channel I is a marketing channel involving cultivators, collectors, wholesalers, retailers and end consumers. This marketing channel is the marketing channel that has the longest marketing chain. Koi fish cultivators sell koi fish to wholesalers, then resell them to collectors, from which Kohaku koi fish collectors are resold to retailers. In this channel, the final consumers buy kahaku koi fish through retailers at the UPTD Freshwater Ornamental Fish Promotion Center, Rawalumbu District, Bekasi City.

#### **Marketing Channel II**

Marketing channel II is a channel involving kohaku koi fish cultivators, collector traders, retailers, and end consumers. This marketing channel is the

marketing channel that has the shortest marketing chain. Koi fish farmers sell their fish products to koi fish collectors and collectors sell their koi fish to ecer traders and can be sold directly to end consumers.

## 2. Cost of Benefits

### a. Koi kohaku fish cultivators

Based on the BCR calculation value in (Table 1), of all marketing channels as a whole, it has a  $BCR \geq 1$ , in other words, the kohaku koi fish cultivation business at the UPTD Freshwater Ornamental Fish Promotion Center, Rawalumbu District, Bekasi City is feasible to be developed. The following is a table of the costs and benefits of kohaku koi fish marketing business at the cultivator level.

### b. Koi Fish Collector

From the results (Table 2) that the two collector traders have  $BCR \geq 1$ , their business is feasible to be developed, but the difference in production results between cultivator I and cultivator II. Judging from the profits obtained in collector traders I who get a profit of Rp. 2,460,000/month while in padagang collector II gets a profit of Rp. 1,975,000/month.

Table 1. The Cost of Koi Fish Marketing Business at the Cultivator Level

No.	Description	Cultivator I Value (Rp)	Cultivator II Value (Rp)
1	<b>Investment Costs</b>		
	Production Equipment Cost	3,500,000.00	3,200,000.00
	Cost of Making a Pool	1,500,000.00	1,000,000.00
	<b>Sum</b>	<b>5,000,000.00</b>	<b>4,200,000.00</b>
2	<b>Fixed Fees</b>		
	Shrinkage of Ponds	600,000.00	450,000.00
	Production Equipment Shrinkage	350,000.00	300,000.00
3	<b>Variable Costs</b>		
	Workforce	1,500,000.00	600,000.00
	Medicines	700,000.00	500,000.00
	Pakan	700,000.00	1,000,000.00
	Listic and Water	500,000.00	500,000.00
	<b>Sum</b>	<b>3,400,000.00</b>	<b>2,600,000.00</b>
	<b>Total Cost</b>	<b>4,350,000.00</b>	<b>3,350,000.00</b>
	<b>Receipt (Product x Price)</b>	<b>4,675,000.00</b>	<b>4,125,000.00</b>
	<b>Advantages (Receipts - Total Cost)</b>	<b>325,000.00</b>	<b>775,000.00</b>
	<b>BCR</b>	<b>1.1</b>	<b>1.2</b>

Source: Processed Data (2024)

Table 2. The Differences in the Costs and Benefits of Koi Fish Marketing Business at the Merchant Level Collector

No.	Description	Cultivator I Value (Rp)	Cultivator II Value (Rp)
1	<b>Investment Costs</b>		
	Aquarium / Pool Fee	4,000,000,00	5,000,000,00
	Equipment Cost	1,000,000,00	4,000,000,00
	<b>Sum</b>	<b>5,000,000.00</b>	<b>9,000,000.00</b>
2	<b>Fixed Fees</b>		
	Shrinkage of Ponds	300,000.00	350,000.00
3	<b>Variable Costs</b>		
	Koi Fish	8,250,000,00	5,500,000,00
	Plastic	200,000,00	150,000,00
	Oxygen Gas	90,000,00	75,000,00
	Workforce	800,000,00	750,000,00
	Electricity and Water	400,000,00	500,000,00
	Feed	500,000,00	500,000,00
	<b>Sum</b>	<b>10,240,000,00</b>	<b>7,475,000,00</b>
	<b>Total Cost</b>	<b>10,540,000,00</b>	<b>7,775,000,00</b>
	<b>Receipt (Product x Price)</b>	<b>13,000,000,00</b>	<b>9,750,000,00</b>
	<b>Advantages (Receipt – Total Cost)</b>	<b>2,460,000,00</b>	<b>1,975,000</b>
	<b>BCR</b>	<b>1.2</b>	<b>1.3</b>

Source: Processed Data (2024)

## c. Koi Fish Wholesalers

Wholesalers are traders who have koi fish with a large number of around 1500-4000 fish. Wholesalers usually buy directly from cultivators and sometimes from collectors. Marketing transportation costs for wholesalers are usually borne by themselves. This wholesaler distributes its products to retailers and consumers. To find out the details of the costs and benefits of the koi fish marketing business, please see (Table 3).

Table 3. The Differences in the Costs and Benefits of Koi Fish Marketing Business at the Merchant Level Big

No.	Description	Wholesaler Channel I Value (Rp)
1	<b>Investment Costs</b>	
	Pool/Aquarium Fees	5,000,000.00
	Production Equipment Cost	4,000,000.00
	Rental Cost	1,500,000.00
	<b>Total Investment Cost</b>	<b>10,500,000.00</b>

No.	Description	Wholesaler Channel I Value (Rp)
2	<b>Fixed Fees</b>	
	Shrinkage of Ponds/Aquariums	1,200,000.00
	Production Equipment Shrinkage	300,000.00
3	<b>Variable Costs</b>	
	Marketing Equipment	500,000.00
	Electricity and Water	750,000.00
	Workforce	1,000,000.00
	Feed	700,000.00
	<b>Sum</b>	<b>2,950,000.00</b>
	<b>Total Cost</b>	<b>4,450,000.00</b>
	<b>Revenue</b> (Production x Selling Price)	<b>6,500,000.00</b>
	<b>Profit</b> (Revenue -Total Cost)	<b>2,050,000.00</b>
	<b>BCR</b>	<b>1.5</b>

Source: Processed Data (2024)

#### d. Retail Merchants

From table 4, it can be seen that the average value of each retailer trader, that the retailer trader can be said to be feasible in the koi fish business because it is seen from the BCR value  $\geq 1$ . From the results (Table 4) below that the two retailers have a BCR  $\geq 1$ , then their business is worth developing, but the difference in production results between retailer I and retailer II. Judging from the profits obtained in the first retailer who gets a profit of Rp. 1,200,000/month, while in the second retailer the second gets a profit of Rp. 2,550,000/month.

Table 4. The Cost and Benefits of Koi Fish Marketing Business at the Level Retail Merchants

No	Description	Retailer I Value (Rp)	Retailer II Value (Rp)
1	<b>Investment Costs</b>		
	Pool/Aquarium Fees	2,265,000.00	15,000,000.00
	Equipment Cost	5,000,000.00	10,000,000.00
	<b>Sum</b>	<b>7,265,000.00</b>	<b>25,000,000.00</b>
2	<b>Fixed Fees</b>		
	Shrinkage Tool	200,000.00	1,200,000.00
3	<b>Variable Costs</b>		
	Koi Fish	9,750,000.00	5,850,000.00
	Workforce	2,200,000.00	500,000.00
	Electricity and Water	500,000.00	250,000.00
	Plastics and Oxygen Gas	150,000.00	150,000.00
	<b>Sum</b>	<b>12,600,000.00</b>	<b>6,750,000.00</b>

No	Description	Retailer I Value (Rp)	Retailer II Value (Rp)
	<b>Total Cost</b>	<b>12,800,000.00</b>	<b>7,950,000.00</b>
	<b>Receipt</b> (Product x Price)	<b>14,000,000.00</b>	<b>10,500,000.00</b>
	<b>Advantages</b> (Receipts - Total Cost)	<b>1,200,000.00</b>	<b>2,550,000.00</b>
	<b>BCR</b>	<b>1.1</b>	<b>1.3</b>

Source: Processed Data (2024)

#### e. Consumers

The final consumer is the final user of a product, in this case as the buyer of Koi Kohaku fish and will not be sold to anyone else. Consumers will go directly to the stalls of retailers to buy fish freely. Usually, consumers buy Koi Kohaku fish as decoration for ponds at home. Consumers who come from various regions. The price of Koi Kohaku fish offered by each retailer to consumers varies. Koi Kohaku fish are sold at different prices based on their size.

### 3. Marketing Efficiency

Efficiency measurement can be done in two ways, namely operational efficiency and price efficiency. Operational efficiency can be seen from marketing costs and marketing margins. Marketing margin is the difference between the price paid by the end consumer and the price received by the previous marketing agency, which includes marketing costs and profits. Marketing costs are all costs incurred to distribute goods from one institution to another marketing institution outside the profits generated by the marketing institution (Hanafiah and Saefudidin 1983).

Marketing margin analysis reduces profits and costs in each marketing agency of each channel. The marketing margin of koi fish at the UPTD Freshwater Ornamental Fish Promotion Center, Rawalumbu District, Bekasi City can be seen in (Table 5). Efficient measurement can also be done by knowing the BCR of marketers. If the  $BCR \geq 1$ , the business is inefficient, and if the  $BCR < 1$ , the business is declared inefficient. To find out the efficiency of koi fish marketing actors, you can see from (Table 5).

Table 5. Marketing Margin for Kohaku Koi Fish at UPTD Promotion Center for Freshwater Ornamental Fish, Rawalumbu District, Bekasi City

No	Fish Grade	Cultivator Price (Rp)	Consumer Level Prices (Rp)	Marketing Margin (Rp)
1	A	Rp.150.000	Rp. 350.000	Rp. 200.000
2	B	RP. 55.000	Rp. 70.000	Rp. 15.000
3	C	Rp. 20.000	Rp. 30.000	Rp. 20.000

Source: Processed Data (2024)

Efficient measurement can also be done by knowing the BCR of marketing actors. If  $BCR \geq 1$  then the business is declared efficient, and if  $BCR < 1$  then the business is declared inefficient. To find out the efficiency of koi fish marketing players, you can see (Table 6).

Table 6. Efficiency Measurement in Marketers

Channels	Perp	BCR	Average BCR	Efficiency Status
I	Cultivators	1.1	1.2	<b>Efficient</b>
	Collector Traders	1.2		<b>Efficient</b>
	Wholesalers	1.5		<b>Efficient</b>
	Retail Merchants	1.1		<b>Efficient</b>
II	Cultivators	1.2	1.3	<b>Efficient</b>
	Collector Traders	1.3		<b>Efficient</b>
	Retailer	1.3		<b>Efficient</b>

Source: Processed Data (2024)

From the results of the table, it can be concluded that the average pattern of koi fish marketing channels has a BCR value above 1, meaning that all marketing actors, namely cultivators, collectors, wholesalers and retailers, have an efficient marketing efficiency status. Each channel has a BCR of  $\geq 1$ , which means that all koi fish marketing channels at the UPTD Freshwater Ornamental Fish Promotion Center, Rawalumbu District, Bekasi City are worthy of development.

#### 4. Marketing Effectiveness

The effectiveness in marketing koi fish at the UPTD Ornamental Fish Promotion Center in Bekasi City can be seen from the marketing channel pattern II is the most effective channel pattern, due to its finances, production and human resources, so that an effective marketing system is created both from the cultivator to the final consumer. In this channel, every institution from cultivators to consumers understands what developments in koi fish, for example, types of koi fish that are in demand or rare types of koi fish.

The target or target in the channel II pattern is not only concerned with the quantity of koi fish but also with quality, because marketers from cultivators to retailers embrace all consumer groups ranging from the lower middle class to the upper middle class so that they can be more creative and innovative in koi fish marketing.

## CONCLUSION

The results of research analysis of koi fish marketing channels at the UPTD Promotion Center for Freshwater Ornamental Fish, Rawalumbu District, Bekasi City, can be concluded as follows: there are two marketing channel patterns at the UPTD



Promotion Center for Freshwater Ornamental Fish, Rawalumbu District, Bekasi City, namely channel I (cultivators, traders, collectors, wholesalers, retailers and final consumers) and channel II consists of (cultivators, collectors, retailers and final consumers). In channel I, the average BCR value was 1.2. Meanwhile, in marketing channel pattern II, the average BCR value was 1.3. In the marketing margin of koi fish at the UPTD Freshwater Ornamental Fish Promotion Center, Rawalumbu District, Bekasi City, the results of koi fish were grade A which had the highest marketing margin compared to grade B and grade C.

## REFERENCES

- Adrianto, T. (2014). *Pengantar Ilmu Pertanian*. Global Pustaka. Utama. Yogyakarta.
- Anindita, R. dan N. Baladina. (2017). *Pemasaran Produk Pertanian*. Edisi 1. ANDI. Yogyakarta.
- Avianti, E., Nurhayati, A., & Handaka, A. A. (2017). Analisis Pemasaran Ikan Neon Tetra (*Paracheirodon Innesi*) Studi Kasus di Kelompok Pembudidaya Ikan Curug Jaya II (Kecamatan Bojongsari, Kota Depok Jawa Barat). *Jurnal Perikanan Kelautan*, 8(1).
- Dahuri, R. (2000). *Pendayagunaan Sumberdaya Kelautan Untuk Kesejahteraan Rakyat*. Lembaga Informasi dan Studi Pembangunan Indonesia. Jakarta: LISPI.
- Simanjuntak, F. A., Daslim, F., Harahap, S., dan Elidawati, E. (2019). Pengaruh Biaya Produksi Dan Biaya Pemasaran Terhadap Laba Pada Pt. Sumatera Hakarindo Medan. *Jurnal Bisnis Kolega*.
- Elvin, E., dan Priatna, W. B. (2018). Analisis Pemasaran Ikan Koi (Kasus di Desa Babakan, Kecamatan Ciseeng, Kabupaten Bogor). *In Forum Agribisnis: Agribusiness Forum* (Vol. 8, No. 1, Hal. 97-116).
- Haikal, F.L dan Mulyana. (2008). *Koi*. Jakarta: Penebar Swadaya. 184 halaman.
- Hururiyati, R. (2015). *Bauran Pemasaran dan Loyalitas Konsumen* Cetakan 4. Bandung: Alfabeta.
- Kotler dan Keller. (2009). *Manajemen Pemasaran*. Jilid 1. Edisi ke 13: Erlangga, Jakarta.
- Kotler, P. (2002). *Manajemen Pemasaran*, Edisi Milenium: PT. Prehalindo, Jakarta.
- Kotler, P., dan Armstrong, G. (2008). *Prinsip-prinsip pemasaran* (Vol. 1, No. 2). Jilid.1, Erlangga, Jakarta.
- Lesmana, D.S. (2015). *Ensiklopedia Ikan Hias Air Tawar*. Penebar Swadaya. Jakarta.
- Limbong W.H, dan Sitorus. (1987). *Pengantar Tataniaga Pertanian*. Bogor. Fakultas Pertanian. Institut Pertanian Bogor.
- Primyastanto, M. (2011). *Feasibility Study Usaha Perikanan*. Universitas BrawijayaPress. Malang.
- Septiara, I., Maulina, I., dan Buwono, I. D. (2012). Analisis pemasaran ikan mas koki (*Carassius auratus*) di kelompok pembudidaya ikan kalapa ciung Kecamatan Cimalaka Kabupaten Sumedang. *Jurnal Perikanan Kelautan*, 3(3). Fakultas Perikanan dan Ilmu Kelautan. Universitas Padjadjaran.

- Silalahi, R., dan Dhewantara, Y. L. (2018). Analisis Pemasaran Ikan Koi (*Cyprinus carpio*) di Pasar Ikan Hias Jalan Sumenep Jakarta Pusat. *Jurnal Ilmiah Satya Minabahari*, 4(1), 65-73.
- Siscawati, L. (2023). Analisis Pemasaran Budidaya Ikan Koi (*Cyprinus carpio*) di Buana Koi Farm Kecamatan Kedu Kabupaten Temanggung. Skripsi. Fakultas Perikanan dan Ilmu Kelautan. Universitas Diponegoro. Semarang.
- Sudana, I. W. (2019). Analisis efisiensi pemasaran ikan teri segar hasil tangkapan nelayan di Desa Sanggalangit Kabupaten Buleleng. *Jurnal Pendidikan Ekonomi Undiksha*, 11(2), 637-648.
- Sufianto, B. (2008). Uji transportasi ikan mas koki (*Carassius auratus*) hidup sistem kering dengan perlakuan suhu dan penurunan konsentrasi oksigen. TESIS. Bogor: Sekolah Pasca Sarjana Institut Pertanian Bogor.
- Sugiyono. (2009). *Metode Penelitian Kuantitatif, Kualitatif dan R&D*. Alfabeta.
- Suryana. (2013). *Kewirausahaan Kiat dan Proses Maju Sukses*. Salemba Empat, Jakarta.
- Susanto, H. (2008). Gambaran Histologi Organ Insang, Otot dan Usus Ikan Koi (*Cyprinus carpio*) di Desa Cibanteng. Skripsi. Fakultas Kedokteran Hewan. Institut Pertanian Bogor.
- Wangsapraja, N. A., dan Buwono, I. D. (2018). Analisis Pemasaran Ikan Cardinal Tetra (*Paracheirodon axelrodi*) Studi Kasus Di Kelompok Pembudidaya Ikan Tetra Abadi. Kecamatan Bojongsari Kota Depok. *Jurnal Perikanan Kelautan*, 9(2).
- Zahra, F. A, dan Naully, D. (2021). Analisis Saluran Pemasaran Belimbing Dewa di Kecamatan Pancaron Mas Kota Depok. *Jurnal Agribisnis Indonesia (Journal of Indonesian Agribusiness)*, 9 (1): 13-22.