

Supply Chain Management and Value Added Analysis of Fish Raw Material in Restaurant Businesses in Pagimana District, Banggai Regency

Salista Husen¹, Fatlina Zainuddin², Asngadi³, Suryadi Hadi⁴

Department of Management, Faculty of Economics and Business, Universitas Tadulako, Indonesia^{1,2,3,4}

Corresponding Author: Salista Husen (salistasgina@gmail.com)

ARTICLE INFO

Received:

26 April 2025

Revised:

14 March 2026

Accepted:

16 March 2026

Published:

30 March 2026

ABSTRACT

This study aims to analyze the performance of fish raw material supply chain management and the value added generated at each supply chain node in restaurants of Pagimana District, Banggai Regency. A qualitative descriptive approach was employed, with data collected through in-depth interviews, observation, and documentation involving 14 informants comprising restaurant owners, fishermen, collectors, retailers, and consumers. Data were analyzed thematically using a marketing margin approach to trace value-added distribution across supply chain actors. The results reveal that the fresh fish supply chain in Pagimana involves three to four key actors: fishermen, collectors/retailers, and restaurants. Each actor obtains a different margin: fishermen earn IDR 25,000/kg, collectors IDR 20,000/kg, retailers up to IDR 40,000/kg, and restaurants between IDR 16,000 and IDR 41,000 per portion depending on the purchasing channel. These findings imply the need to strengthen institutional coordination among actors to improve distribution efficiency and ensure more equitable value-added sharing along the local fishery supply chain.

Keywords: Fish Raw Material; Supply Chain Management; Value Added; Pagimana Restaurant; Marketing Margin



Cite this as: Husen, S., Zainuddin, F., Asngadi, A., & Hadi, S. (2026). Supply Chain Management and Value Added Analysis of Fish Raw Material in Restaurant Businesses in Pagimana District, Banggai Regency. *Wiga: Jurnal Penelitian Ilmu Ekonomi*, 16(1), 202–212. <https://doi.org/10.30741/wiga.v16i1.1556>

INTRODUCTION

In the context of the increasingly competitive culinary industry, the availability and efficient management of raw materials are key determinants of restaurant sustainability, particularly for establishments that rely on fresh fishery inputs. Raw material quality directly influences the final product served to consumers, making a reliable procurement system a fundamental prerequisite for restaurant success. In this regard, the supply chain concept plays a vital role. Supply chain refers to how a business efficiently operates from start to finish, ensuring the right timing and quantity to achieve customer satisfaction while maintaining profitability (Goni et al., 2022). Optimizing the potential of superior commodities requires attention to multiple dimensions, including product quality, raw material availability, and price stability (Hadi et al., 2024). Supply chain management (SCM) encompasses the entire cycle involving multiple stages and activities, from raw material procurement through suppliers, operational activities within the firm, to product distribution to consumers (Almubrak & Miru, 2023). Traditionally, supply chains are viewed as static systems

comprising interconnected and interdependent organizational networks working reciprocally (Wieland, 2021). A supply chain is also defined as a network of organizations involved through upstream and downstream linkages in a series of value-creating processes that deliver products and services to end consumers (Christopher, 2011). SCM involves coordinated activities covering raw material procurement, semi-finished and finished goods, along with their distribution inside and outside the supply chain network (Rohaeni et al., 2020). A central concept in supply chain analysis is value added, defined as the increase in economic value of a product occurring at each processing or distribution stage within the supply chain. Value added reflects the difference between the output value generated and the input value consumed at each supply chain node, enabling measurement of individual actor contributions and efficiency (Sari et al., 2024). The implementation of an efficient supply chain system positively affects production continuity and enables more equitable value-added distribution across actors (Pramudya et al., 2024).

Pagimana is a sub-district in Banggai Regency, Central Sulawesi, Indonesia, located approximately 64 km north of Luwuk City. The region is recognized as a primary fish-producing area due to its extensive coastline and rich marine resources. The majority of its population, particularly the Bajo community, has maintained a long tradition of fishing and coastal settlement. Bajo fishermen are highly skilled, possessing knowledge passed down through generations, making them the primary suppliers of fresh fish to local markets and seafood-focused restaurants (Muzakir & Suparman, 2016). The optimization of fisheries management can be achieved through the implementation of an effective supply chain system (Sulaeman Miru, 2018). Although several studies have examined fishery supply chains in Indonesia at a general level (Muslimin et al., 2021; Sulaeman Miru, 2018; Mubaraq et al., 2019), a significant research gap remains: no study has specifically examined the structure of the fresh fish supply chain in the restaurant sector in coastal areas where Bajo fishermen serve as primary suppliers, particularly in measuring value-added distribution at each supply chain node. Prior studies have predominantly focused on capture fisheries supply chains for export markets or large-scale processing industries, leaving the dynamics of supply chains serving local restaurants largely undocumented. Studies such as Erna Marliyana et al. (2023) on maize agribusiness and Hairurnisa et al. (2024) on banana chip agroindustry demonstrate that supply chain analyses at the small-to-medium enterprise scale yield distinct findings compared to large-scale operations, reinforcing the academic necessity of a similar investigation in the fish-based restaurant sector.

Practically, a deeper understanding of the fish supply chain in Pagimana is urgently needed by restaurant operators, fishermen, and collectors to identify efficiency opportunities and pathways to increase value added. Academically, this study contributes to the limited empirical literature on SCM in local-scale fisheries sectors, while providing a data-driven foundation for coastal culinary economy policy development. Based on the above background, this study is guided by the following research questions: (1) What is the structure and flow of the fresh fish raw material supply chain in restaurants of Pagimana District? (2) How much value added is obtained by each actor in the supply chain? (3) What factors influence the efficiency and smooth flow of the fish raw material supply chain in Pagimana restaurants? This study aims to identify and analyze the performance of fresh fish raw material supply chain management in restaurants in Pagimana District, including the role of each actor, value-added distribution, distribution efficiency, and their implication for restaurant business success.

THEORETICAL FRAMEWORK AND HYPOTHESES

Supply Chain Management (SCM) is defined as a series of processes spanning raw material procurement from suppliers, manufacturing operations, and product distribution to consumers (Almubrak & Miru, 2023). The management of these relationships, from suppliers to end consumers, involves coordinated activities relating to the flow of materials, information, and finances along the chain (Syamsuddin et al., 2024). Upstream supply chain activities ensure raw material availability at the right time, in the right quantity, and at an efficient cost. In contrast, downstream activities focus on delivering finished products to end consumers efficiently and on time (Anwar, 2011). Value

added in the context of supply chains refers to the economic increment contributed by each actor through processing, handling, distribution, or service activities. At each node in the chain, value added can be measured using the marketing margin approach, calculated as the difference between selling price and purchase price minus operational costs (Sari et al., 2024). A higher margin indicates a greater contribution, but must be evaluated alongside the associated risks and costs borne by that actor. The strategic importance of dual supplier systems in supply chain resilience has been emphasized by Wieland (2021), who argues that supply chain robustness depends on the capacity to maintain material flow continuity even when one supply source experiences disruption. This principle is directly relevant to the restaurant context studied here.

Meanwhile, Rombe & Hadi (2022) demonstrated that supply chain capability and performance are positively related to marketing performance in the retail sector, suggesting that improvements in supply chain efficiency translate into measurable business outcomes. Mubaraq et al. (2019) further established that strategic information systems and supply chain performance are conceptually linked to operational performance in the fishing industry. The role of trust-based relationships in informal governance of supply chains has been highlighted in the context of coastal communities (Muzakir & Suparman, 2016; Christopher, 2011). In the absence of formal contracts, long-term partnerships and shared social identities can function as effective coordination mechanisms, reducing transaction costs and ensuring supply reliability.

METHODS

This study employs a qualitative research design with a descriptive approach. Qualitative methodology was chosen because the study seeks to understand the processes, interactions, and meanings embedded in the fish raw material supply chain system in Pagimana District, which cannot be fully captured through quantitative methods alone. The research was conducted in Pagimana District, Banggai Regency, Central Sulawesi, selected on the basis that the area is both a capture fisheries hub and home to actively operating fish-based restaurants. Fieldwork was carried out over three months, from initial observation through data analysis completion. Informants were selected using purposive sampling based on three criteria: (1) direct involvement in the fresh fish supply chain in Pagimana District; (2) a minimum of one year of activity in that role; and (3) willingness to provide open information. A total of 14 informants were involved, comprising 3 restaurant owners (Umrah, Waraswati, and AL Grilled Fish restaurants), 4 fishermen (including Bajo deep-sea fishermen and daily fishermen), 4 collectors/bosses, 2 market retailers, and 1 consumer. Full coverage of all supply chain nodes was intentional to ensure a comprehensive picture of the system. Data were collected through three primary techniques. First, in-depth interviews using semi-structured interview guides covering: raw material procurement patterns, purchase and selling prices, operational costs, ordering frequency, inter-actor relationship mechanisms, and stock management challenges. Second, direct observation was conducted to examine fish unloading processes, storage, kitchen processing, and distribution patterns. Third, documentation review was performed on available ordering records, purchase receipts, and operational documents.

Data analysis was conducted in three stages: (1) data reduction, selecting and focusing data relevant to the research topics; (2) data presentation in the form of supply chain flow matrices and per-actor margin tables; and (3) conclusion drawing and verification. To calculate value added, the marketing margin approach was applied: the difference between the selling price and purchase price at each supply chain node, minus operational costs incurred. Data validity was ensured through source triangulation (cross-checking information from fishermen, collectors, and restaurant owners) and technique triangulation (comparing interview results with observational findings).

RESULTS AND DISCUSSION

The supply chain of fresh fish raw materials in Pagimana District involves multiple interconnected actors: Bajo fishermen as primary producers, collectors as intermediaries, retailers as alternative

sources, and restaurants as processors that deliver value to end consumers. This multi-actor structure reflects the complexity typical of fishery supply chains in coastal Indonesia (Muslimin et al., 2021). The system operates according to the criteria of timeliness, quantity, accuracy, cost efficiency, and quality assurance, in line with the SCM principles articulated by Hairurnisa et al. (2024).

Bajo fishermen are the backbone of the supply chain. They conduct fishing trips of three days and two nights guided by ice cube durability, and are recognized for their deep knowledge of ocean currents, wind direction, and fish migration patterns. Their traditional boats (katinting) and fishing tools (nets, spear arrows, fishing rods) reflect generations of inherited skill. Each trip typically yields 80 to 100 kg of catch. Collectors serve as intermediaries and are categorized into three types: (1) non-capital collectors who gather and transport fish to market; (2) capital-holding collectors (bosses) who finance fishermen and purchase their catch; and (3) direct-purchase collectors who buy from fishermen and resell to restaurants or consumers. Fish traded in this supply chain are classified into CB (large-grade) and CK (small-grade), with restaurants consistently preferring CB grade at IDR 50,000/kg.

Umrah Restaurant Supply Chain

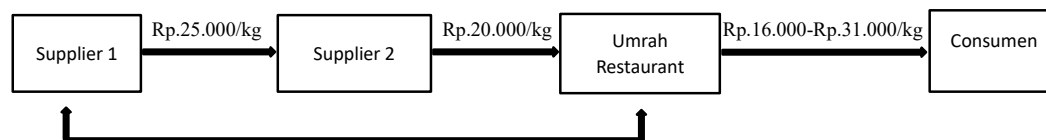


Figure 1. Flow of Umrah Restaurant Supply Chain

Source: Data processing results

Based on the results of interviews with informants, there are several questions regarding supply chain performance activities at Umrah restaurants involving several parties. Based on the results of interviews with informants (Mr. PB), who is a bajo fisherman and the main supplier of fish raw materials at Umrah restaurants. As explained by him, he traveled for 3 days and 2 nights. According to the resistance of ice cubes, he had to keep returning even though sometimes the catch was less than expected, but usually he got about 80-100kg of fish raw materials within 3 days and 2 nights.

The fishing tools used are arrows and fishing rods. They will distribute the catch to restaurants, including Umrah restaurants, after unloading. He previously had a promise to distribute his catch to the Umrah restaurant at a predetermined time; besides that, they also have a very long-standing cooperative relationship, and both are Bajo people who make their cooperative relationship even closer. Based on the results of interviews with informants (Mr. RD), the second supplier of Umrah restaurants. The characteristics of the collectors who are suppliers to Umrah restaurants are collectors who provide capital to their men who are fishermen, then unloading is carried out by separating the types of fish and then selling them to the boss who provides the capital after which they are stored in a container in the form of cork and fiber boxes to maintain the freshness of the fish, after which they will be distributed to Umrah restaurants that already have promises and cooperative relationships and will also be distributed to other areas such as palu and makaassar for the price varies depending on the type of fish. Still, Umrah restaurants prefer CB fish (Cucuk Besar), which costs Rp. 50,000 / kg. Based on the results of interviews with informants, namely the two Umrah restaurant suppliers (Mr. PB) and (Mr. RD), and the owner of the Umrah restaurant (Mr. AM). The selling price from fishermen is Rp.35,000 minus costs such as fishing gear, gasoline, food, ice cubes and others which cost around Rp.1,000,000 for a period of 3 days and 2 nights, so the margin that fishermen get is Rp.25,000 / kg because each box of cork contains 50kg, while collectors sell at Rp.50,000 / kg because the boss gives costs to the crew and the catch will be sold to the crew..000 / kg because the boss gives the fare to the crew and the catch will be sold to the boss then the results will be given to the crew as their wages and reduced by the price of the fare given by the boss of Rp. 1,000,000, then the fish will be resold by the boss/collector at a price of Rp.50,000 / kg where each box contains 50kg which requires 1es balak which costs Rp.30,000 then the result of the

selling price of the collector will be reduced by the purchase price of the fishermen/crew then divided by 50kg then the margin obtained by the collector is Rp.20,000 / kg.

The margin obtained by Umrah restaurants is different if Umrah restaurants buy fish from fishermen; the margin they get will be greater because the purchase price from fishermen is Rp. 31,000. But if Umrah restaurants buy fish from collectors, the margin obtained by Umrah restaurants is Rp. 16,000 with a selling price of Rp. 40,000 / portion and minus the purchase price from fishermen or collectors, and minus the price of ingredients such as pepper, tomatoes, onions, rice, and others.

Internal Supply Chain

Table 1. Ordering Data and Receipt of Fish Raw Materials for Umrah Restaurant

No	Bookings per week 3 times	Receiving Time	Order Quantity
1	Tuesday	Erratic	20kg
2	Thursday	Erratic	20kg
3	Saturday	Erratic	20kg
4	Total Ordering		60kg

Source: Data processing results

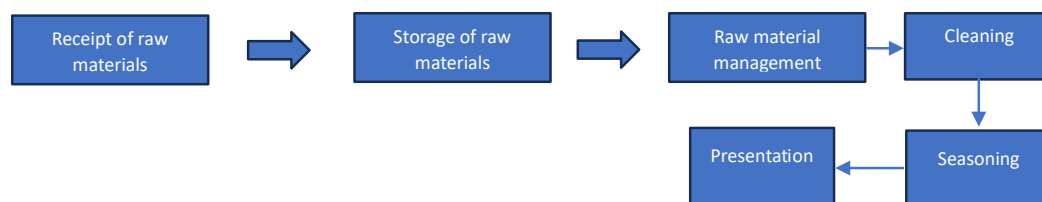


Figure 2. Internal Supply Chain of Umrah Restaurant

Source: Data processing results

Based on the table and the results of the informant interview (Mr. AM), who is the owner of the Umrah restaurant? Umrah restaurants need raw materials in 1 week, around 60kg, so that Umrah restaurants routinely place orders 3 times a week, with each order of 20kg. The time is uncertain because it depends on the incoming stock at the supplier. Based on the results of interviews with umrah restaurant employees, umrah restaurants use fiber containers. Processed fish in Umrah restaurants consists of two types, namely grilled and fried. Processing fish raw materials in Umrah restaurants starts from checking the quality of the fish, then cleaning, which includes removing scales, as well as removing gills and organs in the stomach of the fish, then washing until clean, and after that, seasoning is given, and then served to consumers according to consumer demand.

Downstream Supply Chain



Figure 3. Downstream Supply Chain Flow of Umrah Restaurant

Source: Data processing results

Based on the results of interviews with informants (Mr. AM), who is the owner of the Umrah restaurant, the first supplier (Mr. PB), and the second supplier (Mr. RD). Umrah restaurants have two suppliers, namely direct fishermen and collectors. The aim is to maintain the smoothness and availability of raw materials needed because, usually, the stock of raw materials from fishermen is insufficient, so that Umrah restaurants have 2 suppliers. For packaging, fishermen and collectors use boxes commonly called corks, and for shipping, collectors use transportation in the form of cars. In contrast, fishermen use traditional boats, namely catamarans, or also via motorcycle taxis.

Waraswati Restaurant Upstream Supply Chain

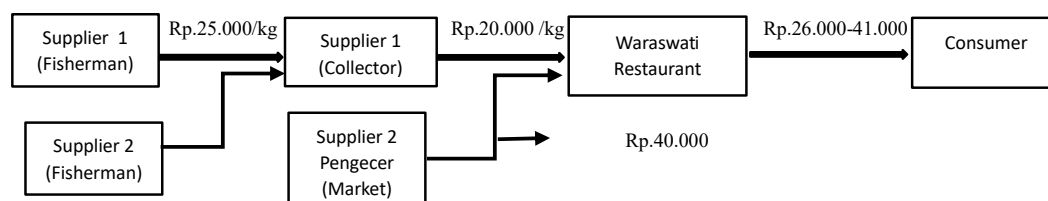


Figure 4. Supply Chain Flow of Waraswati Restaurant

Source: Data processing results

Based on the results of interviews with informants, there are several questions regarding supply chain performance activities in Waraswati restaurants involving several parties, including fishermen and collectors. Based on the results of interviews with informants (Mr. AS), who is the main collector and supplier of fish raw materials at Waraswati restaurant, he explained that he bought fish from 2 fishermen. The aim is to ensure the smoothness and availability of fish raw material stocks that will be distributed to restaurants, one of which is Waraswati restaurant, and also to consumers. This is very important because the first fisherman usually cannot meet the stock demand needed by the collector so (Mr. AS) decided to have 2 suppliers so that the stock of fish raw materials remains available smoothly, after the collector receives the fish from the fisherman, the collector will separate according to the type of fish and put it in a cork or fiber box. (Mr. AS) has established a cooperative relationship with the two fishermen because they are both Bajo people, which makes their cooperative relationship even stronger. But even though the owner of the Waraswati restaurant does not have the same tribe, the working relationship between the collector and the owner of the Waraswati restaurant is still going well because they have been working together for a long time.

Based on the results of interviews with the owner of the Waraswati restaurant (Mrs. T), she also has a second supplier, namely a retailer in the market. Usually, if the stock of raw materials from the collector is not enough, the Waraswati restaurant buys fish from the market to maintain the stock of raw materials. The stage of this retailer is fishermen who directly sell their fish to the market, but these fishermen are different from fishermen who usually travel 3 days, 2 nights; these fishermen only travel 1 day, and if they get the fish, they will immediately sell it to the market. The price is the same as that given by the collector, depending on the type, because the type of fish consists of 2 types, namely CK and CB, but Waraswati restaurants always take the CB type of fish, which costs Rp. 50,000/kg. Based on the results of interviews with informants who are suppliers of Waraswati restaurants, the margins obtained by collectors and retailers are different. The margin earned by collectors is Rp. 20,000/kg, because the purchase price from fishermen is Rp. 35,000/kg for CB fish, and is sold to consumers for Rp. 50,000, and in 1 box of cork contains 50 kg, which requires 1 balak ice cube, which costs Rp. 30,000. Then the selling price to consumers is reduced by the purchase price from fishermen and reduced by the price of ice balak, then the result is divided into 50kg, and the margin obtained is Rp. 20,000 / kg. Meanwhile, the margin earned by retailers is Rp.40,000, because these retailers are fishermen who directly sell their fish to the market which costs Rp.50,000 / kg in 1 thermos containing 15kg of fish which requires 3 packaged ice cubes which cost Rp.5,000 3 seeds then the selling price is reduced by the price of food ingredients, fishing gear and also ice and others it costs around Rp.150,000 for a period of 1 day.

Internal Supply Chain

Table 2. Ordering and Receipt of Fish Raw Materials, Waaraswati Restaurant

No	Bookings per week 4 times	Receiving Time	Order Quantity
1	Sunday	Morning	8kg
2	Tuesday	Erratic	8kg

3	Wednesday	Erratic	8kg
4	Saturday	Morning	8kg
5	Total Ordering		32kg

Source: Data processing results

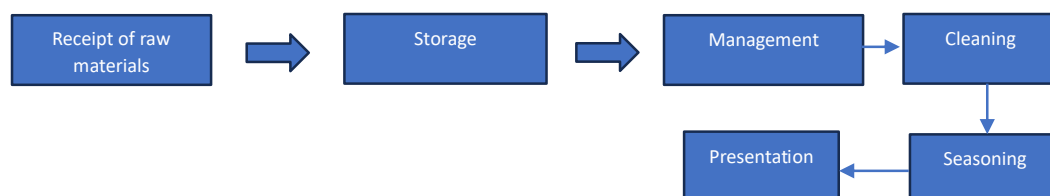


Figure 5. Internal Supply Chain Flow of Waraswati Restaurant

Source: Data processing results

Based on the results of interviews with informants (Mrs. T), who is the owner of the Waraswati restaurant. Waraswati restaurants require fish raw materials of around 32kg in 1 week, so they routinely place orders 4 times a week, with each order of 8kg. The time is sometimes uncertain depending on the raw materials that enter the supplier, but on Saturday and Sunday, the fish raw materials usually enter in the morning. Based on the results of interviews with employee informants at Waraswati restaurant, the container used by Waraswati restaurant is made of fiber. The fish preparation consists of two types, namely fried and grilled. The processing starts from checking the quality of the fish, then cleaning, which includes removing scales, gills, and organs in the stomach of the fish, and then washing it thoroughly. After that, the food is seasoned according to consumer demand and then served.

Downstream Supply Chain



Figure 6. Downstream Supply Chain Flow of Waraswati Restaurant

Source: Data processing results

Based on the results of interviews with informants, (Mrs. T), who is the owner of the Waraswati restaurant and the supplier of fish raw materials (Mr. AS), and retailers in the market (Mrs. MT). Waraswati restaurant has two suppliers, namely collectors and retailers. The aim is to maintain the smoothness and availability of the required raw materials. For packing, collectors use a box called a cork, and for delivery, collectors use car transportation or via ojek. In contrast, retailers use plastic paper as fish wrappers, and for delivery, there is nothing because the owner goes directly to the market.

Grilled Fish Restaurant AL

Upstream Supply Chain

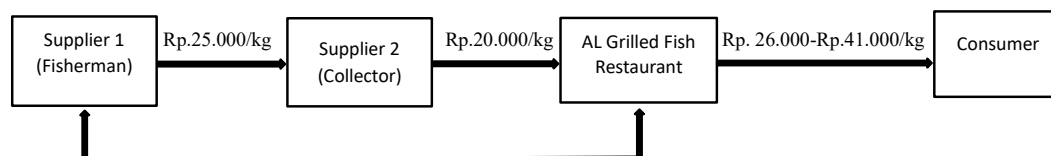


Figure 7. Supply Chain Flow of AL Grilled Fish Restaurant

Source: Data processing results

Based on the results of interviews with informants (Mr. HD), who is a fisherman and also the first supplier of AL grilled fish restaurants, he fishes for 3 days and 2 nights according to the durability of ice cubes and food stocks. He must return even though sometimes the catch is less than expected,

but usually he gets almost 100kg. The tools used are arrows, nets, and fishing rods. The catch will be distributed to restaurants, one of which is Al's grilled fish restaurant, after unloading, and the fish distributed is CB fish because they have previously had a promise and a cooperative relationship, even though the owner and fishermen do not have the same tribe. However, their cooperative relationship is still well established. Based on the results of interviews with informants (Mr. BD) who are collectors and suppliers of the two grilled fish restaurants, etc. The characteristics of this restaurant collector are collectors who are usually called bosses or who provide capital to men who become fishermen then the catch will be separated according to the type of fish and then sold to the boss who is the collector after that it is stored in a container in the form of a cork and fiber box to maintain the freshness of the fish after that it will be distributed to the grilled fish restaurant al because it already has a previous appointment and working relationship and will also be distributed to other areas such as hammer and Makassar for the price varies depending on the type of fish but the grilled fish restaurant al always takes CB fish which costs Rp.50,000 / kg.

Based on the results of interviews with informants, namely the owner of the grilled fish restaurant al (Mr. R), the first supplier (Mr. HD), and the second supplier (Mr. BD). The margins they get vary. The selling price from fishermen is Rp. 35,000 minus the costs incurred for fishing gear, gasoline, ice cubes, food, etc., which costs around 1,000,000 for a 3-day 2-night trip, the margin earned by fishermen is Rp. 25,000 / kg because each cork box contains 50kg. At the same time, the collector/boss provides capital to the crew, who are fishermen, and then they will do the unloading to separate the types of fish; after that, it is sold to the boss. Then the results will be the wages for the crew minus the capital price provided by the boss. After that, the collector sells at a price of Rp. 50,000 / kg, where each box contains 50kg, which requires 1 balak ice, which costs Rp. The purchase price of the fishermen is reduced by 30,000, the result of the selling price and also the price of ice, and the margin obtained by the collector is Rp. 20,000 / kg. The margins earned by grilled fish restaurants vary. If the grilled fish restaurant buys fish from fishermen, the margin obtained is Rp.41,000 because the selling price per prosi is Rp.45,000 minus the purchase price from fishermen for CB fish type Rp.35,000 and also the price of ingredients such as rice, vegetables, pepper, onions, tomatoes and others, but if you buy from a food collector the margin obtained is Rp.26,000 because the price from the collector is higher than the fisherman.

Internal Supply Chain

Table 2. Ordering and Receiving Fish Raw Materials at the AL talent fish restaurant

No	Bookings per day	Receiving time	Order Quantity
1	Monday	Erratic	6Kg
2	Tuesday	Erratic	6Kg
3	Wednesday	Erratic	6Kg
4	Thursday	Erratic	6Kg
5	Friday	Erratic	6Kg
6	Saturday	Afternoon	6Kg
7	Sunday	Morning	6Kg
8	Total Ordering		42Kg

Source: Data processing results



Figure 8. The Internal Supply Chain Flow Of Ikan Bakar AL Restaurant

Source: Data processing results

Based on the results of interviews with informants (Mr. R), who is the owner of the grilled fish restaurant al. Ikan bakar al restaurant requires about 42 kg of raw fish materials in 1 week, with each

order of about 6kg. The time is also uncertain depending on the entry of fish raw materials at the supplier, but if Saturday usually enters at noon, because before Sunday night, there are usually many people who come, so that the fish raw materials run out quickly. On Sunday, the fish raw materials enter in the morning, if not from the first supplier, possibly from the second supplier. Based on the results of interviews with informants (Mbak F), as an employee at the grilled fish restaurant al, the container used for fiber. The fish preparation consists of two types, namely fried and grilled. The processing starts from checking the quality of the fish, then cleaning, which includes removing scales, as well as removing gills and organs in the stomach of the fish, and then washing it thoroughly. After that, season according to consumer demand, and then serve.

Downstream Supply Chain



Gambar 9. Downstream Supply Chain Flow of the AL Grilled Fish Restaurant

Source: Data processing results

Based on the results of interviews with informants, (Mr. R), who is the owner of the AL grilled fish restaurant, (Mr. HD), a fisherman who is the first supplier of the AL grilled fish restaurant, and (Mr. BD), the collector and second supplier of the AL grilled fish restaurant. AL grilled fish restaurants have two suppliers to maintain the smoothness and availability of the necessary raw materials. For packaging, fishermen and collectors use cork boxes, and for delivery, collectors use car transportation because considering the distance is a bit far, while fishermen use motorcycle transportation / via ojek.

CONCLUSION

This study analyzed supply chain management performance and value-added distribution in the fresh fish raw material supply chain of three restaurants in Pagimana District, Banggai Regency. Three principal findings emerge. First, all three restaurants (Umrah, Waraswati, and AL Grilled Fish) operate a dual-supplier system combining deep-sea fishermen or collectors with market retailers as alternative sources, with weekly demand of 60 kg, 32 kg, and 42 kg, respectively. Second, value-added distribution reveals that fishermen earn IDR 25,000/kg, collectors IDR 20,000/kg, and retailers up to IDR 40,000/kg, while restaurant margins range from IDR 16,000 to IDR 41,000 per portion depending on the purchasing channel and restaurant type. Direct purchasing from fishermen consistently generates higher restaurant margins. Third, trust-based relationships rooted in Bajo ethnic identity or long-standing partnerships serve as effective informal coordination mechanisms, maintaining supply chain stability without formal contracts. Academically, this study extends the SCM literature in local-scale fisheries contexts by demonstrating that value-added distribution is not always proportional to risk and contribution levels, complementing prior studies focused on large-scale fishery supply chains (Muslimin et al., 2021; Sulaeman Miru, 2018).

From a managerial perspective, restaurant owners are advised to strengthen direct partnerships with fishermen through minimum price agreements that protect fishermen while securing supply. Collectors should invest in cold storage capacity to extend fish shelf life and increase distribution flexibility. All supply chain actors are encouraged to adopt digital communication tools for real-time stock updates to reduce supply uncertainty. From a policy perspective, the Banggai Regency government is recommended to: (1) facilitate the formation of organized fishermen groups to strengthen their supply chain bargaining position; (2) develop cold chain infrastructure in Pagimana District to support more efficient fresh fish distribution; and (3) promote formal partnerships between fishermen and restaurants through fisheries-based micro and small enterprise development programs. Future research is recommended to employ mixed methods with larger quantitative datasets, examine the impact of fishing seasons on price and supply fluctuations, and investigate the

potential of digital platforms in managing fresh fish supply chains in Indonesian coastal communities.

REFERENCES

- Almubrak, M. R., & Miru, S. (2023). Rice food supply chain management in Tojo Una-Una District. *Tadulako International Journal*, 64-72. <http://tajamuntad.com/index.php/tajam/article/view/102>
- Anwar, S. N. (2011). Manajemen rantai pasok (supply chain management): Konsep dan hakikat. *Jurnal Dinamika Informatika*, 3(2), 1-7.
- Christopher, M. (2011). *Logistics and supply chain management* (4th ed.). Financial Times/Prentice Hall.
- Erna Marliyana, Fatlina, Z., Syamsuddin, & Hadi, S. (2023). Analisis rantai pasok agribisnis jagung di Kabupaten Sigi. *Jurnal Manuhara: Pusat Penelitian Ilmu Manajemen dan Bisnis*, 1(3), 47-59. <https://doi.org/10.61132/manuhara.v1i3.54>
- Goni, A. G., Palandeng, I. D., & Pondaag, J. J. (2022). Analisis rantai pasok (supply chain) minuman cap tikus. *Journal EMBA*, 10(2). <https://doi.org/10.35794/emba.v10i2.39813>
- Hadi, S., Miru, S., Manajemen, P. S., & Tadulako, U. (2024). Supply chain digitalization through application prototypes for leading commodities in Central Sulawesi. 7, 1298-1309.
- Hairurnisa, R., Zainuddin, F., Syamsuddin, S., & Hadi, S. (2024). Analisis rantai pasok bahan baku utama agroindustri keripik pisang Arzizah. *Revenue Manuscript*, 2, 79-93.
- Hidayat, M. R. F., Miru, S., Syamsuddin, & Kadang, J. (2024). Tata kelola persediaan bahan baku usaha Djamoé Van Java untuk meningkatkan efisiensi pembuatan jamu. *Jurnal Riset Manajemen dan Ekonomi (JRIME)*, 2(2), 236-241. <https://doi.org/10.54066/jrime-itb.v2i2.1588>
- Mubaraq, R., Rombe, E., Hadi, S., & Ardiansyah, R. (2019). Strategic information system, supply chain performance, and operational performance in the fishing industry: A conceptual model. *Advances in Social Science, Education and Humanities Research*, 100, 562-566. <https://doi.org/10.2991/icoi-19.2019.99>
- Muslimin, Hadi S., & Ardiansyah. (2015). The relationship between logistics and the financial performance of SMEs in Indonesia. *IJABER*, 13(11).
- Muslimin, Mangun, N., Rombe, E., Taqwa, E., Sutomo, M., & Hadi, S. (2021). AHP structure for determining sustainable performance of the Indonesian seafood supply chain from the stakeholders' perspective. *Journal of Management Information and Decision Sciences*, 24(7).
- Muzakir, & Suparman. (2016). Strategy of developing Tomini Bay for the economic growth of the coastal community in Central Sulawesi. *Jejak Journal of Economics and Policy*, 9(1), 96-110.
- Nurfatimah, D., Asngadi, Miru, S., & Syamsuddin, S. (2024). Pengendalian proses produksi untuk meningkatkan kualitas produk pada usaha Out of the Box di Kota Palu. *Jurnal Ekonomi dan Pembangunan Indonesia*, 2(1), 200-206. <https://doi.org/10.61132/jepi.v2i1.363>
- Pramudya, A., Zainuddin, F., & Hadi, S. (2024). Analysis of supply chain management activities (case study on Zaskia Furniture Business in Palu City). *Journal of Advanced Studies in Management*, 1(1), 11-18.
- Rohaeni, Y., Hidayat, A., & Sutawidjaya. (2020). Pengembangan model konseptual manajemen rantai pasok halal studi kasus Indonesia. *J@ti Undip: Jurnal Teknik Industri*, 15(3), 177-188. <https://doi.org/10.14710/jati.15.3.177-188>
- Rombe, E., & Hadi, S. (2022). The impact of supply chain capability and supply chain performance on marketing performance of retail sectors. *Uncertain Supply Chain Management*, 10. <https://doi.org/10.5267/j.uscm.2021.11.005>
- Sari, S. P., Miru, S., Asngadi, A., & Wirastuti, W. (2024). Analisis value added olahan coklat batangan pada CV. Rapoviaka Simple di Kota Palu. *Jurnal Ekonomi dan Pembangunan Indonesia*, 2(1), 215-222. <https://doi.org/10.61132/jepi.v2i1.366>
- Sulaeman Miru, D. (2018). Model rantai pasok perikanan tangkap di kawasan Teluk Tomini. *Prosiding Seminar Hasil Penelitian (SNP2M)*, 332-335.



E-ISSN : 2549-5992, P-ISSN : 2088-0944

Available online at:

<https://ejournal.itbwigalumajang.ac.id/index.php/wiga>

- Syamsuddin, Saharuddin, Yusrizal, Dharmawati, T., Pujisari, Y., & Fatmawati, E. (2024). Utilizing blockchain technology in global supply chain management: An exploration of scalable information systems. *EAI Endorsed Transactions on Scalable Information Systems*, 11(1). <https://doi.org/10.4108/ects.4374>
- Wieland, A. (2021). Dancing the supply chain: Toward transformative supply chain management. *Journal of Supply Chain Management*, 57(1), 58-73. <https://doi.org/10.1111/jscm.12248>