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ANALYSIS OF EFFICIENCY OF THE LOBSTER MARKETING CHANNEL IN ACEH SIMEULUE REGENCY

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Abstract

This study aims to identify the marketing channel and analyze the marketing performance of wild-caught lobster in Simeulue Regency, Aceh Province, Indonesia. The research was conducted using a descriptive case-study approach, with primary data collected through interviews and field observations involving four lobster fishers, one wholesaler (UD. Mahlil), one local restaurant buyer, and one outside-region buyer in Jakarta. The analysis focuses on marketing margin, marketing cost, and fishers' share as indicators of marketing performance. The results show that lobster marketing in Simeulue is dominated by a single marketing channel, namely fishers → wholesaler → final buyers, which serves two market destinations: local and outside-region markets. For the local destination, the marketing margin is IDR 50,000/kg with an average marketing cost of IDR 20,000/kg, resulting in a fishers' share of 80%. For the outside-region destination (Jakarta), the marketing margin reaches IDR 170,000/kg with an average marketing cost of IDR 40,000/kg, and the fishers' share decreases to 51.43% due to higher transportation, handling, and logistics costs. These findings indicate that local lobster marketing provides a higher proportion of the final price to fishers, while access to outside-region markets offers higher absolute margins but reduces fishers' relative share. The results indicate that the observed lobster marketing channel shows relatively efficient performance based on marketing margin, cost structure, and fishers' share indicators.

Keywords: lobster marketing; marketing channel; marketing margin; marketing cost; fisher's share.



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1. INTRODUCTION

Lobster constitutes one of Indonesia's high-value marine commodities and serves as a significant contributor to the economy, both for rural coastal livelihoods and for the export fishery. In Indonesia, the marine sector plays a major role in the GDP and involves millions of small-scale fishers who rely on high-value species such as spiny lobster (*Panulirus* spp.) for income generation. Simeulue Regency, Aceh Province, is one of the significant lobster-producing areas along the west coastlines of Sumatra Island, and with its coastal and reef ecosystems to fisheries which support fisheries that include wild capture lobster and small-scale marine culture populations (Petersen et al., 2020)

Aceh Province, located near the western extremity of Indonesia, possesses abundant marine resources in the Indian Ocean and the Malacca Strait. Simeulue Regency, an island district in Aceh, is recognised for its fertile coastal waters and coral reef ecosystems that sustain a variety of reef-associated animals, including spiny lobster. The waters of Simeulue are part of the fisheries management area 572, which includes the western coast of Sumatra and is acknowledged as a significant region for demersal and reef fisheries. These biophysical characteristics establish advantageous environments for lobsters and offer significant opportunities for small-scale fishers to

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pursue this high-value species utilising basic fishing equipment and tiny vessels. (Priyambodo & Jaya, 2010) (Priyambodo & Jaya, 2010).

Official records from the Simeulue Marine and Fisheries Office indicate that lobster output in 2024 totalled 29,158 kg, exhibiting significant annual variability. Monthly output reached its zenith in January (5,001 kg) and February (4,544 kg), then experienced a significant fall from April to August, culminating in the lowest figure in June (1,066 kg) before rising again towards the year's conclusion. The pronounced seasonal cycles are intricately associated with monsoonal weather, marine conditions, and fishing endeavours, thereby impacting market supply, price determination, and marketing tactics. Fishers frequently encounter diminished fishing days and increased operating hazards during adverse sea conditions, thereby impacting their income stability and negotiating power.

Price data by species reveals that various lobster kinds demonstrate significantly varied economic worth. Lobster pasir attracts the highest rates, ranging from IDR 300,000 to 350,000 per kilogram, followed by lobster batu and lobster bambu, which are generally offered at IDR 270,000 to 300,000 per kilogram. Lobster kipas, conversely, command significantly lower prices, approximately IDR 70,000–100,000/kg, indicative of variations in market preferences, meat yield, and perceived quality. Inter-species price differentials affect fishers' targeting behaviour and landing composition, as well as the marketing methods employed by wholesalers and retailers who must reconcile demand, quality standards, and logistical limitations (Ahmadi et al., 2022).

The lobster marketing system in Simeulue is characterised by a significant reliance on a primary trader, UD. Mahlil, which serves as the principal intermediary between fishers and end consumers, both locally and beyond the region. Fishers generally sell live lobster directly to UD. Mahlil at landing sites, where the trader performs grading, interim storage, and packaging before delivering the goods to local restaurants or purchasers in Jakarta. This framework yields a rather brief marketing channel regarding the number of participants—fishermen → wholesaler (UD. Mahlil) → end consumers—yet entails varying cost structures and hazards depending on whether the product is marketed locally or distributed to external regional markets (Lilimantik, 2020).

From the point of view of fishers, various obstacles hinder their capacity to fully capitalise on the elevated market value of lobster. Initially, they encounter considerable price volatility, as local purchasing prices are profoundly affected by conditions in Jakarta, which acts as a principal reference market for high-value seafood in Indonesia. Secondly, the majority of fishers possess restricted access to market information, financial resources, and storage facilities, so heightening their reliance on a singular distributor who offers cash payments, occasional advances, and access to more remote marketplaces. The structural conditions diminish fishermen's bargaining strength and may lead to pricing disparities that do not consistently represent their contributions and risks within the value chain (Amdar, 2025).

From the wholesaler's viewpoint, the primary issues pertain to elevated marketing and logistics expenses, particularly for shipments beyond the regional confines. Transporting live lobsters from Simeulue to Jakarta involves several stages: maritime transfer from Simeulue to the mainland, terrestrial transport to the airport or harbour facilities, and meticulous handling to preserve product quality and viability. The wholesaler incurs expenses for transportation, packaging, oxygenated

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containers, refrigeration, and labour, along with the risks of death and quality degradation during transit. The expenses can be considerable, apparently approximating IDR 90,000/kg for deliveries to Jakarta, and must be offset through marketing margins to ensure profitability (Haj & Novindra, 2023).

In the literature on agricultural and fishery marketing, marketing efficiency is commonly assessed through a combination of marketing margin, marketing costs, and farmers' share—the proportion of the final consumer price accruing to producers. A marketing system is considered efficient if it delivers products from producers to consumers at minimum cost per unit while providing equitable returns to all actors in the chain. Empirical studies on fish marketing in Indonesia and other developing countries indicate that shorter channels with fewer intermediaries tend to generate higher farmers' share for producers, whereas longer channels often result in higher margins and costs but can still be efficient if value added and services justify the additional costs (Napitupulu et al., 2022).

Prior studies on fishery marketing channels in Indonesia have recorded significant disparities in efficiency among species, locations, and marketing frameworks. Research on marine fish and lobster value chains indicates that channels where the farmer's share is between 50–80% and marketing efficiency is below 50% can be deemed efficient, despite seemingly high margins, provided that marketing costs and services (such as transport, cold chain, and quality assurance) are substantial (Isukadana et al., 2021). Nonetheless, empirical evidence for distant island locations like Simeulue is lacking, as geographical isolation, inadequate infrastructure, and market concentration may influence the dynamics between margins, costs, and the distribution of gains.

In this context, there is a distinct necessity for empirical examination of the lobster marketing system in Simeulue that specifically addresses the configuration of marketing channels, the extent and elements of marketing margins, and the allocation of value between fishermen and intermediaries. This research can guide local governments and development agencies in formulating initiatives to improve market access, bolster bargaining power, and enhance well-being for small-scale lobster fishers. This can also enhance the existing literature on value chains in small-scale fisheries, especially in island settings characterised by logistical challenges and reliance on a limited number of buyers.

Unlike previous studies that generally assess marketing efficiency across multiple channels, this study provides a focused case analysis of a highly concentrated lobster marketing structure in a remote island context, distinguishing local and out-of-region market destinations. This study aims to analyze the marketing channel and marketing performance of lobster in Simeulue Regency through a case-based approach, focusing on a highly concentrated market structure with a dominant trader. By distinguishing between local and out-of-region market destinations, this study contributes empirical evidence from a remote island context, which remains underrepresented in fisheries marketing literature.

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2. METHOD

2.1 Data collection

The research was conducted at Simeulue Regency, Aceh Province, Indonesia, from April to May 2025. Simeulue was purposively selected because it is an island region with active small-scale lobster fisheries and limited marketing alternatives, making it suitable for a case-study analysis of lobster marketing performance.

The study adopts a descriptive case-study approach focusing on the dominant lobster marketing channel observed in the study area. Respondents were selected using purposive sampling to capture key actors directly involved in lobster transactions and marketing cost incidence. A total of seven respondents participated in the study, consisting of four lobster fishers, one wholesaler (UD. Mahlil), one local buyer (restaurant owner in Simeulue), and one outside-region buyer located in Jakarta.

Primary data were collected through structured interviews and direct field observations. Interview data included purchase and selling prices, transaction volumes, and detailed marketing cost components. Field observations were conducted to document lobster handling, grading, temporary storage, packaging, and transportation practices. All price and cost data were recorded in Indonesian Rupiah per kilogram of live lobster and represent average values reported by respondents during the observation period. Respondents were selected purposively to capture key actors directly involved in lobster transactions and marketing cost incurrence (Amdar, 2025).

A total of seven respondents were interviewed: four lobster fishers, one wholesaler (UD. Mahlil), one local restaurant buyer in Sinabang, and one outside-region buyer in Jakarta. Primary data included purchase and selling prices (IDR/kg live lobster), volumes, and detailed marketing cost components (transport, packaging, oxygenation, labour, and local handling). All prices and costs are expressed per kilogram of live lobster and represent average values reported during the observation period. Secondary data were obtained from the Simeulue Marine and Fisheries Office and relevant literature on fisheries marketing in Indonesia. Secondary data were gathered from prior research, official publications, and scientific literature about marketing efficiency in fishing value chains, specifically within Indonesian small-scale fisheries (Isukadana et al., 2021).

2.2 Data analysis

The research integrates qualitative descriptive analysis to delineate the marketing channel alongside quantitative metrics to evaluate marketing performance.

1. Marketing channel analysis

Marketing channel analysis was conducted by tracing the flow of lobster from fishers to final buyers and identifying all actors involved in the marketing process. The observed channel was described in terms of participants, market destinations, and main marketing functions, including collection, grading, storage, transportation, and distribution. Particular attention was given to distinguishing between local market destinations and outside-region market destinations within the same dominant marketing channel.

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2. Analysis of Marketing Margin

Marketing margin analysis was used to measure the difference between the price paid by the final buyer and the price received by fishers. The total marketing margin (MT) was calculated as:

$$MT = Pr - Pf$$

where:

Pr = price paid by the final buyer (IDR/kg), and

Pf = price received by fishers (IDR/kg).

This indicator reflects the gross value added generated along the marketing channel between producers and final buyers.

3. Marketing Cost and Marketing Profit

Marketing cost (CC) refers to all costs incurred by the wholesaler in moving lobster from fishers to final buyers. These costs include transportation, packaging, oxygenation, temporary storage, labor, and other handling-related expenses. Marketing profit (π) was calculated as the difference between the marketing margin and total marketing cost:

$$\pi = MT - CC$$

This calculation provides an estimate of the net return obtained by the intermediary after covering marketing expenses.

4. Fishers' Share

Fishers' share (FS) measures the proportion of the final buyer price that accrues to fishers and is calculated as:

$$FS = (Pf / Pr) \times 100\%$$

A higher Fisher's share indicates that a larger proportion of the final price is received by producers. In this study, fishers' share is used as a descriptive indicator of benefit distribution along the observed marketing channel. Qualitative descriptions of socio-economic characteristics and institutional arrangements complement the quantitative results, explaining the observed differences between local and outside-region marketing (Amdar, 2025).

This study does not apply a universal numerical threshold to classify marketing efficiency. Instead, marketing performance is interpreted comparatively based on marketing margin, marketing cost, and fishers' share between local and outside-region market destinations. Given the limited number of respondents, the findings are presented as illustrative case-study evidence rather than generalized conclusions for the entire region.

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3. RESULT AND DISCUSSION

The prices of lobsters in Simeulue Regency are significantly affected by interrelated elements within the supply chain and market dynamics. A significant issue is elevated shipping expenses, a crucial element in determining selling prices, influenced by product weight, market distance, and the condition of transport infrastructure. Extended destinations such as Jakarta entail increased logistics expenses shouldered by merchants. Wahiu et al., (2019) demonstrate that transportation costs are positively correlated with elevated selling prices for fisheries products, attributable to substantial distribution charges from coastal regions to primary consumer markets. Moreover, severe weather events, including intense rainfall, strong winds, and elevated waves, profoundly affect lobster supply; erratic sea conditions diminish capture efforts, resulting in reduced supply while demand persists, consequently elevating prices. This phenomenon is corroborated by (Illahi et al., 2023), who discovered that declines in catch due to adverse weather substantially raise prices for fish and marine products at the consumer level. Consequently, Simeulue lobster prices exhibit significant sensitivity to volatile production and logistical variables.

Beyond costs and weather, unstable prices and demand fluctuations are major determinants of lobster price dynamics. Demand surges sharply before holidays or peak seasons, especially from outside-region markets like Jakarta, triggering price hikes due to supply constraints. However, during abundant harvest seasons, prices fall as supply exceeds demand. Parapat & Abdurrachman (2019) state that supply–demand imbalances cause significant price fluctuations in marine product marketing chains. Other factors like consumer purchasing power and national economic conditions also affect price stability; declining purchasing power reduces lobster demand despite adequate supply, lowering prices. This aligns with Aprilia Dwi Aisyah & Daspar (2025) those who note that fishery product price volatility reflects seasonal demand dependence and uneven supply distribution. Thus, adaptive marketing strategies and efficient logistics are needed to stabilise prices and fishermen's incomes in Simeulue.

Lobster forms sold in the Indonesian market typically consist of three main types: live lobster, fresh lobster, and frozen lobster, depending on supply chains, market destinations, and post-harvest technologies. Live lobster is commonly exported due to its high economic value, especially *Panulirus homarus* and *Panulirus ornatus*. Fresh lobster is more often sold domestically, using post-harvest methods like low-temperature storage or natural preservatives such as salam leaves (*Syzygium polyanthum*) to maintain meat quality. Frozen forms serve the culinary industries and exports as frozen tails or whole frozen lobster, adhering to Indonesian National Standards (SNI) for frozen fishery products. These variations are influenced by cold chain infrastructure, marketing partnerships between fishermen and collectors, and global demand for quality and freshness (Rombe et al., 2018; Romdhon & sukiyono, 2011)

3.1 Marketing channel structure

Field observations indicate that the lobster marketing system in Simeulue Regency is mostly characterised by a singular channel:

fishermen → distributor (UD. Mahlil) → final buyers

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This structure represents the dominant marketing arrangement observed during the study period and reflects the limited number of actors involved in lobster trade in the region. Unlike lobster marketing systems in several mainland regions of Indonesia, where multiple layers of collectors and traders may operate, no village-level collectors or secondary intermediaries were identified between fishers and the wholesaler in Simeulue. As a result, UD. Mahlil functions as the primary gatekeeper connecting local lobster production to both local and outside-region markets. This structure is very straightforward in contrast to the multi-layered fishing channels found in other Indonesian regions, where several collectors and sellers may be engaged prior to the products reaching customers (Lestari et al., 2023)

At the producer level, fishers involved in this study are small-scale operators using simple fishing gear such as traps and handlines, with relatively small vessels operating close to the coastline and reef areas. Lobsters are caught alive and temporarily stored in basic holding containers before landing. Initial sorting by species and size is conducted by fishers at landing sites, while more detailed grading is performed by the wholesaler. Transactions between fishers and the wholesaler typically take place immediately after landing, either at the landing sites or at the wholesaler's facility, and are conducted on a cash basis. Prices received by fishers vary according to species, size, and prevailing market conditions, with outside-region market prices—particularly those in Jakarta—serving as an important reference.

The wholesaler (UD. Mahlil) occupies a central role in the marketing channel and performs multiple marketing functions that add value to the product. These functions include aggregation of lobster from multiple fishers, quality grading, temporary storage, packaging, and distribution. For local market destinations, lobsters are delivered directly to restaurants and eateries in Simeulue, usually over short distances with minimal handling requirements. In contrast, for outside-region destinations, particularly Jakarta, the wholesaler is responsible for organising long-distance transportation involving sea and land routes, as well as maintaining lobster quality through oxygenated packaging and careful handling.

The presence of two market destinations within a single dominant channel—local and outside-region—results in different cost structures and risk profiles. Local marketing involves relatively low transportation and handling costs and limited risk of mortality, whereas outside-region marketing requires higher expenditures on transport, packaging, and labour, and entails greater risk of quality loss or mortality during transit. These differences play a key role in shaping marketing margins and the distribution of benefits along the channel.

In the local market, a portion of the lobster collected by UD. Mahlil is distributed to restaurants and eateries in Sinabang and nearby regions that offer live or fresh seafood. Sales occur at elevated prices per kilogram for live lobster, surpassing those obtained by fishermen; nonetheless, the overall volume sold locally is quite minor in relation to shipping to Jakarta. The local market is bolstered by demand from residents and tourists, characterised by more frequent, although smaller volume transactions, akin to trends observed in coastal tourism regions where restaurants capture a modest but consistent portion of high-value seafood supply. Fishermen sell live lobsters to UD. Mahlil at IDR 200,000 per kilogram, and the distributor sells to local eateries at IDR 250,000 per kilogram. In the external market, the acquisition cost at the fishermen's level is IDR 180,000 per kilogram, and the selling price to purchasers in Jakarta attains IDR 350,000 per kilogram. The reduced producer price

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for the external region channel indicates negotiation agreements that reimburse the wholesaler for increased logistical risks and expenses, aligning with observations from other Indonesian island regions where remote markets yield elevated final prices but necessitate substantial capital and logistical investments (Haj & Novindra, 2023).

For the external market, UD. Mahlil transports live lobsters to Jakarta utilising a combination of maritime and terrestrial conveyance, employing insulated packaging, oxygenation, and refrigeration to preserve quality and viability during transportation. Jakarta serves as a principal centre for high-value seafood demand, with primary purchasers comprising large seafood traders, suppliers to hotels and restaurants, and upscale establishments offering live lobster. The transportation process from Simeulue to Jakarta necessitates precise time and meticulous logistics management, since delays or mismanagement can diminish quality and incur economic losses for the wholesaler. This form of long-distance live lobster trading, characterised by considerable mortality risk and elevated logistics costs, is also emphasised in research on lobster supply chains in various regions of Indonesia.

From an institutional standpoint, the significant reliance on a sole distributor indicates a pronounced degree of market concentration at the collector level. With UD. Mahlil serving as the primary conduit to both local and Jakarta markets, fishermen possess restricted avenues for selling lobster, resulting in a comparatively weak bargaining position regarding pricing, which is significantly shaped by the wholesaler's pricing strategies affected by Jakarta market dynamics. The literature on small-scale fisheries indicates that concentrated structures might enhance efficiency in coordination and logistics; nevertheless, they may also pose hazards of unequal value distribution if not mitigated by clear pricing mechanisms or collective organisations among producers.

Fishermen sell live lobsters to UD. Mahlil at IDR 200,000 per kilogram, and the distributor sells to local eateries at IDR 250,000 per kilogram. In the external market, the acquisition cost at the fishermen's level is IDR 180,000 per kilogram, and the selling price to purchasers in Jakarta attains IDR 350,000 per kilogram. The reduced producer price for the external regional channel indicates negotiation agreements that reimburse the wholesaler for elevated logistics risks and expenses, aligning with observations from other Indonesian island regions where remote markets provide higher final prices but necessitate substantial capital and logistical investments (Haj & Novindra, 2023).

3.2 Marketing Margin, Cost, and Profit

The analysis of marketing margin, marketing cost, and marketing profit reveals substantial differences between local and outside-region lobster marketing destinations in Simeulue Regency. These differences reflect variations in market distance, logistical complexity, risk exposure, and the range of marketing functions performed by the intermediary. Rather than indicating differences in marketing "efficiency," the results illustrate how value is added and distributed along the same marketing channel under different market conditions.

For the local market destination, the average price received by fishers is IDR 200,000 per kg, while the price paid by local buyers, mainly restaurants in Simeulue, is approximately IDR 250,000 per kg.

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This price difference results in a marketing margin of IDR 50,000 per kg. The relatively small margin reflects the short marketing distance, limited handling requirements, and the absence of complex logistics in local distribution.

Marketing costs incurred by the wholesaler for local sales average around IDR 20,000 per kg. These costs mainly consist of short-distance transportation, simple packaging materials, labour for handling and delivery, and minor operational expenses. Because lobsters are delivered directly to nearby buyers and sold shortly after landing, the risk of mortality and quality degradation is relatively low. Consequently, the wholesaler does not require sophisticated storage facilities or advanced packaging technology. Based on these cost and margin figures, the marketing profit obtained by the wholesaler from local sales is estimated at approximately IDR 30,000 per kg.

In contrast, the outside-region market destination (Jakarta) shows a markedly different pattern. Fishers receive an average price of IDR 180,000 per kg, while final buyers in Jakarta pay approximately IDR 350,000 per kg. This generates a marketing margin of IDR 170,000 per kg, which is more than three times higher than the margin observed in the local market. The higher margin reflects both the higher purchasing power of urban markets and the additional services required to transport live lobster from a remote island to a distant consumption centre.

Marketing costs for outside-region distribution are significantly higher, averaging around IDR 40,000 per kg. These costs represent the observed operational costs incurred by the trader during the study period, excluding potential risk premiums and extraordinary costs reported in previous studies. The outside-region channel also involves higher operational risks, such as delays due to weather conditions, mortality during transit, and potential quality loss. After deducting these costs, the wholesaler's marketing profit for outside-region sales is estimated at approximately IDR 130,000 per kg.

Although the outside-region channel generates a substantially higher absolute profit for the wholesaler, this outcome should be interpreted in relation to the greater capital requirements and risks involved. The intermediary must invest more resources in logistics and bear potential losses associated with transportation and market uncertainty. From this perspective, the higher margin and profit partly compensate for these additional costs and risks, rather than solely reflecting market power.

A comparison between the two market destinations highlights a clear trade-off in lobster marketing outcomes. Local marketing provides lower margins and profits but involves minimal costs and risks, resulting in a more balanced distribution of benefits between fishers and the intermediary. Outside-region marketing, on the other hand, offers access to a high-value market and generates larger margins, but it is associated with higher costs, greater risk exposure, and a lower relative price received by fishers.

These findings are consistent with previous studies on fisheries marketing in remote and island regions, which report that longer marketing channels serving distant markets tend to produce higher margins due to additional value-adding activities, but often reduce the proportion of the final price accruing to producers. In the context of Simeulue Regency, the observed marketing margin and cost structure underscore the central role of logistics, risk, and market access in shaping value distribution within small-scale lobster fisheries.

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3.3 Farmer's share and distribution of benefits

Fishers' share analysis is employed to examine how the final buyer price of lobster is distributed between producers and intermediaries within the observed marketing channel. In small-scale fisheries, fishers' share is an important indicator because it reflects the extent to which producers benefit from market participation, particularly in settings where marketing options are limited and dependence on intermediaries is high.

In the local market destination, fishers receive an average price of IDR 200,000 per kg, while local buyers pay approximately IDR 250,000 per kg. This price structure results in a fishers' share of 80%, indicating that most of the final price accrues directly to producers. The high fishers' share in the local market is closely related to the short marketing distance and the relatively simple marketing functions involved. Lobsters are sold within the same region shortly after landing, which minimises transportation, storage, and handling requirements. As a result, marketing costs remain low, and only a limited portion of the final price is absorbed by the intermediary.

The local market structure also allows for a more transparent price formation process. Because transactions take place within close geographical proximity, fishers are generally aware of prevailing local prices and face lower uncertainty regarding demand. This condition contributes to a more balanced distribution of benefits between fishers and the wholesaler, even though the latter still captures a margin to cover operational costs and obtain profit. Similar findings have been reported in other small-scale fisheries supplying local markets, where proximity to consumers enables producers to retain a larger share of the final price.

In contrast, the outside-region market destination (Jakarta) exhibits a significantly lower fishers' share. Fishers receive IDR 180,000 per kg, while final buyers pay approximately IDR 350,000 per kg, resulting in a fishers' share of 51.43%. This decline indicates that nearly half of the final buyer price is captured beyond the producer level. The lower share received by fishers reflects the higher marketing costs and risks associated with long-distance distribution, including transportation, oxygenated packaging, labour, and the risk of mortality during transit.

Beyond cost-related factors, the lower fishers' share in outside-region marketing also reflects differences in bargaining position and access to markets. Fishers in Simeulue Regency rely heavily on the wholesaler to reach Jakarta buyers, as they lack the capital, infrastructure, and market networks required to engage directly in outside-region trade. This dependence strengthens the intermediary's role in price determination and limits fishers' ability to negotiate higher prices. Consequently, while access to the Jakarta market offers higher absolute prices, it does not translate into a proportionally higher benefit for producers.

A comparison between local and outside-region destinations highlights a key trade-off faced by small-scale fishers in island regions. Local marketing provides a higher relative share of benefits and lower exposure to market risk, but it is constrained by limited demand and lower overall market value. Outside-region marketing offers access to larger and higher-value markets, but involves greater logistical complexity, higher costs, and a less favourable distribution of benefits for fishers. These

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results demonstrate that a higher final buyer price does not necessarily imply a more equitable outcome for producers. (Haj & Novindra, 2023).

Overall, the fishers' share findings emphasise that benefit distribution in lobster marketing is shaped by a combination of logistical constraints, market concentration, and institutional arrangements. In the context of Simeulue Regency, efforts to improve fishers' access to market information, strengthen collective action among producers, or reduce logistical bottlenecks may help enhance fishers' share without undermining the role of intermediaries in connecting remote island fisheries to high-value urban markets. (Lestari et al., 2023)

Implications for small-scale fisheries in island regions

The findings of this study have important implications for small-scale fisheries operating in island and remote regions, where geographical isolation, limited infrastructure, and concentrated market structures strongly influence marketing outcomes and benefit distribution. The case of lobster marketing in Simeulue Regency illustrates how market access, logistics, and institutional arrangements interact to shape fishers' participation in high-value markets.

First, the results demonstrate that geographical isolation plays a decisive role in determining marketing costs and fishers' share. In island regions, access to outside-region markets requires additional transportation, specialised handling, and risk management, which increase marketing costs and reduce the proportion of the final price received by producers. This implies that lower fishers' share in distant markets should not be interpreted solely as evidence of inefficiency or unfairness, but rather as a structural outcome of operating under logistical constraints inherent to island-based fisheries.

Second, the dominance of a single intermediary in Simeulue highlights the dual role of intermediaries in small-scale island fisheries. On one hand, intermediaries provide essential services by aggregating production, managing logistics, and connecting remote fishers to high-value urban markets that would otherwise be inaccessible. On the other hand, market concentration limits fishers' bargaining power and constrains their ability to influence price formation. This finding suggests that policy interventions aimed at eliminating intermediaries may be unrealistic or counterproductive in island settings; instead, efforts should focus on improving the terms under which intermediaries operate and interact with fishers.

Third, the comparison between local and outside-region markets reveals a trade-off between equity and market expansion. Local markets offer a higher fishers' share and lower risk but are constrained by limited demand and lower overall market value. Outside-region markets provide access to higher prices and greater demand but involve greater uncertainty and a less favourable distribution of benefits for producers. For small-scale fishers in island regions, livelihood strategies often involve balancing these two options rather than fully committing to one. This highlights the importance of diversified marketing strategies that allow fishers to allocate part of their catch to local markets while selectively engaging in outside-region trade.

Fourth, the findings underscore the importance of institutional and collective arrangements in improving benefit distribution. In the absence of collective action, individual fishers remain highly

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dependent on intermediaries for market access, information, and capital. Strengthening fishers' organisations or cooperatives may improve access to price information, enhance bargaining capacity, and reduce certain transaction costs, even if intermediaries continue to play a central role in logistics and distribution. In island contexts, such collective arrangements may be more feasible and impactful than large-scale infrastructure investments.

Overall, the implications from Simeulue Regency suggest that improving outcomes for small-scale fisheries in island regions requires a nuanced approach that acknowledges structural constraints rather than assuming ideal market conditions. Policies and development programs should focus on reducing logistical bottlenecks, improving transparency in price formation, and strengthening institutional support for fishers, while recognising the continued importance of intermediaries in connecting remote fisheries to high-value markets.

4. CONCLUSION

Lobster marketing in Simeulue Regency is conducted through a singular primary channel that connects fishermen to clients both locally and in external regions via a central wholesaler, UD. Mahlil. The local marketing channel, with a margin of IDR 50,000/kg, an efficiency rate of 20%, and a farmer's share of 80%, demonstrates great efficiency and allocates a significant amount of the final price to fishers. The external route to Jakarta generates a superior margin of IDR 170,000/kg and maintains an efficient marketing efficiency of 48.57%, yet diminishes fishermen's share to 51.43% owing to elevated transportation, refrigeration, and handling expenses.

The findings indicate clear differences in marketing outcomes between market destinations. Local lobster marketing is characterised by low marketing costs, relatively small marketing margins, and a high fishers' share, reflecting short marketing distances and limited logistical requirements. In contrast, outside-region marketing to Jakarta generates substantially higher marketing margins and profits for the intermediary but involves higher costs and risks, resulting in a significantly lower fishers' share. These results highlight a trade-off between access to high-value markets and the relative benefits received by producers.

Overall, the distribution of benefits in lobster marketing in Simeulue is shaped by geographical isolation, logistical constraints, and market concentration rather than by marketing efficiency alone. The presence of a dominant intermediary plays a crucial role in connecting small-scale fishers to distant markets, but it also influences price formation and bargaining power along the marketing channel.

As a case study, the findings provide context-specific insights into marketing performance and value distribution in island-based small-scale fisheries. They suggest that efforts to improve fishers' welfare should focus on reducing logistical bottlenecks, improving access to market information, and strengthening institutional arrangements, rather than simply shortening marketing channels. Future research should involve a larger sample size, consider seasonal price variations, and explore alternative marketing arrangements to further enhance the participation of small-scale fishers in high-value markets. These findings should be interpreted within the context of the observed marketing channel and may not fully represent other lobster marketing arrangements in different regions.

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