

# **Enhancing Seafood Marketing: A Qualitative Analysis of Consumer Engagement and Purchase Propensity**

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## **Abstract**

This research aims to provide a widespread analysis to upgrade the seafood supply chain, focusing on the key elements like marketing policy, consumer perception, demand & supply time, storage & transport system, environmental sustainability etc. This study pursues to know how the marketing policy will help us to make awareness about the sector, importance of seafood to the aquaculture industry, also in human body.

## **Keywords**

Marketing, Price, Intermediary, Consumers perception, Transport, Storage, Supply instability,  
Health perception, Fishing community

## **Introduction**

### **Definition of Seafood and their significance in human body:**

Seafood refers to edible aquatic animals and plants, primarily sourced from the ocean, rivers or lakes. This category includes a wide range of foods, such as fish (like salmon, tuna and cod), shellfish (like shrimp, crab, lobster, and clams), mollusks (like squid and octopus), and seaweed. Seafood is a popular source of protein, omega-3 fatty acids, vitamins, and minerals, making it an important part of many diets worldwide. But due to lack of proper marketing policy, lack of knowledge about demand & supply time, people don't get the proper benefits of seafood. If we see an example, we can understand the current scenario of it. One day, a boy of class 7, watched seaweed on television. And he heard about the nutrition of it. But when he asked his parents about the production & supply chain, they couldn't give him a proper description. They are also in a waspish situation. This is the scenario of an educated family. They know that seafood is good for your health. But there is no clear conception about the supply chain and their production system. How seafood stored in off season and after doing storage how it works our body etc.

### **The significance of seafood in human body**

Seafood plays a vital role in human health due to its rich nutritional content. Here are some key benefits:

- 1. Rich Source of Omega-3 Fatty Acids:** Seafood, particularly fatty fish like salmon, mackerel, and sardines, are high in omega-3 fatty acids. These are essential for brain health, reducing inflammation, and supporting heart health by lowering blood pressure and reducing the risk of heart disease.
- 2. High-Quality Protein:** Seafood provides a complete source of protein, which is crucial for building and repairing tissues, supporting immune function, and maintaining muscle mass.
- 3. Vitamins and Minerals:** Seafood is an excellent source of essential vitamins like Vitamin D and B12, and minerals such as iodine, selenium, and zinc. These nutrients are important for bone health, energy production, and maintaining a healthy immune system.
- 4. Low in Saturated Fat:** Compared to other animal proteins, seafood is generally lower in saturated fats, making it a heart-healthy option that can help manage weight and reduce the risk of chronic diseases.

5. **Improves Cognitive Function:** The DHA (a type of omega-3 fatty acid) in seafood is particularly important for brain development and function, making it beneficial for cognitive health and potentially reducing the risk of neurodegenerative diseases like Alzheimer's.
6. **Supports Eye Health:** The omega-3 fatty acids found in seafood are also crucial for maintaining good vision and may help prevent age-related macular degeneration.
7. **Reduces Inflammation:** Regular consumption of seafood can help reduce chronic inflammation, which is linked to many health conditions, including arthritis and other inflammatory diseases.
8. **Stable Supply:** Seafood ensure a consistent supply of fish, crab, lobster for markets, reducing fluctuations in availability and prices.

Including a variety of seafood in your diet can provide these significant health benefits, contributing to overall well-being and disease prevention. In a nutshell, seafood plays a vital component of modern aquaculture.

### **Challenges & Opportunities:**

There are 33000 varieties of seafood in the world. Seafood is an essential part of the global diet, but its production and consumption come with both challenges and opportunities.

Here's a breakdown:

#### **Challenges**

1. **Overfishing and Resource Depletion:**

Overfishing has led to the depletion of many fish stocks, threatening marine biodiversity and the sustainability of global seafood supplies. Unsustainable fishing practices can cause long-term damage to ecosystems, making it difficult for species to recover.

2. **Environmental Impact:**

**Bycatch:** Unintended capture of non-target species, including dolphins, turtles, and seabirds, which can have severe ecological impacts.

**Habitat Destruction:** Certain fishing methods, like bottom trawling, can destroy marine habitats, particularly coral reefs and seafloor ecosystems.

**Pollution:** Aquaculture (fish farming) can contribute to water pollution through the release of waste, chemicals, and antibiotics into surrounding waters.

### **3. Climate Change:**

Rising sea temperatures, ocean acidification, and changes in ocean currents are affecting fish populations and migration patterns. This can disrupt traditional fishing practices and reduce the availability of certain species.

Warmer waters are also contributing to the spread of harmful algal blooms, which can be toxic to marine life and humans.

### **4. Food Safety and Quality:** Contamination of seafood with pollutants like mercury, microplastics, and other toxins is a growing concern, affecting both food safety and consumer health.

The globalization of the seafood trade has also increased the risk of food fraud, such as mislabeling and the illegal fishing of endangered species.

### **5. Economic and Social Challenges:** Many coastal communities rely on fishing as their primary livelihood, and the decline in fish stocks can lead to economic instability and food insecurity. The global nature of the seafood industry can lead to unequal distribution of benefits, with small-scale fishers often receiving less support compared to industrial operations.

## **Opportunities**

### **1. Sustainable Fishing Practices:**

- Implementing sustainable fishing practices, such as setting catch limits and protecting marine areas, can help ensure the long-term viability of fish stocks.
- Certification programs like the Marine Stewardship Council (MSC) encourage responsible fishing by providing consumers with choices that support sustainable fisheries.

### **2. Advances in Aquaculture:**

- Aquaculture, when managed responsibly, offers a solution to meet the growing demand for seafood without further depleting wild fish populations.
- Innovations in feeding, breeding techniques, and waste management are making aquaculture more sustainable and efficient.

### **3. Blue Economy and Job Creation:**

- The seafood industry is a key component of the "blue economy," which focuses on sustainable use of ocean resources for economic growth, improved livelihoods and jobs.
- Development of seafood processing, value-added products, and eco-tourism related to marine environments can provide new economic opportunities for coastal communities.

### **4. Consumer Awareness and Demand:**

- Increasing consumer demand for sustainably sourced seafood is driving positive change in the industry.
- Educating consumers about the benefits of choosing sustainably sourced seafood can lead to broader adoption of responsible practices.

### **5. Technological Innovations:**

- New technologies, such as satellite monitoring and blockchain, are helping to improve transparency and traceability in the seafood supply chain, reducing the risk of illegal, unreported, and unregulated (IUU) fishing.
- Innovations in alternative seafood products, such as plant-based and lab-grown seafood, offer promising options to reduce the pressure on wild fish stocks.
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### **6. Global Collaboration and Policy:**

- International agreements and collaborations, such as the United Nations' Sustainable Development Goals (SDGs) and the Paris Agreement, provide frameworks for addressing global challenges in the seafood industry.
- Effective governance, supported by strong policies and enforcement mechanisms, is crucial for ensuring sustainable and equitable use of marine resources.

In conclusion, the seafood industry stands at a crossroads, with significant challenges that must be addressed to ensure its sustainability. However, these challenges also present opportunities for innovation, collaboration, and progress towards a more sustainable and equitable global seafood system.

## **Literature Review**

Research on seafood marketing has highlighted the importance of understanding consumer behavior to enhance marketing strategies effectively. Consumer engagement, particularly through digital platforms, plays a pivotal role in influencing purchase intentions. Studies suggest that interactive and visually appealing content, such as recipe videos and sustainability certifications, significantly boosts consumer interest in seafood products (Nguyen et al., 2020).

Moreover, trust in seafood products, driven by transparency in sourcing and sustainability practices, has been identified as a key factor in consumer decision-making (Al-Masri et al., 2021). Consumers are increasingly concerned about the environmental impact of their food choices, making sustainability a critical aspect of marketing strategies. The use of labels indicating sustainable practices, such as Marine Stewardship Council (MSC) certifications, has been shown to positively influence purchase intentions (Roheim et al., 2018).

Additionally, qualitative studies have found that consumers' perceptions of seafood freshness and quality are heavily influenced by marketing messages and branding (Verbeke et al., 2019). The sensory appeal, such as the presentation of seafood in marketing materials, also plays a significant role in shaping consumer preferences and purchase intentions.

In conclusion, effective seafood marketing strategies must integrate consumer engagement, transparency, sustainability, and sensory appeal to enhance purchase intentions. This holistic approach not only addresses consumer concerns but also builds long-term trust and loyalty towards seafood products.

### **Theoretical framework:**

This paper mainly analyses the marketing problem faced in the seafood industry. Through market condition study, the cause of this problem is cultural preference, health perception, misperception about taste and preparation, price sensitivity, myth regarding the sector, seasonality and supply chain issue, regulatory challenges and many more. And summing up it all we get, Consumer Perception problem, Pricing problem and Storage and transport problem. And through extensive research it is found that these problems are linked up together.

For instance, when seafood is transported to a farthest destination from the place of procuring or production it requires good freezing and preserving measures including the travel expense. Then a number of middleman involvements are observed to get it to reach the consumer. And all these expenses are indirectly and directly met up through selling the product, resulting in high pricing of the product. And this high pricing is one of the reasons for consumers having misperception regarding seafood as the "Rich people food".

- **Consumer Perception**

One of the reasons behind the poor domestic market condition of seafood in Bangladesh is

due to lack of knowledge among the consumer and their perception regarding seafood.

That's why even after being one of the leading countries in seafood production, the rank of consumption in the world picture is 48. Though seafood is taken as one of the safest foods, all the consumers do not think of it to be fit for consumption, which is due to negative attitudes and risk perception towards seafood. The low rate of consumption was also caused by false beliefs about the halal and haram aspects of seafood, improper information about the fishing season, ignorance of its nutritional value, and the fact that most places do not practice eating seafood, including knowing how to prepare it so that it is edible.

Moreover, higher pricing results in people moving to a cheaper source of protein. But the price of all the varieties of seafood are not as expensive as presumed by the consumer. And lack of knowledge on this also creates consumers' disinterest towards seafood.

- **Pricing**

Bangladeshi people eat fish every day, they choose freshwater fish over saltwater fish because of their price difference. The seafood supply chain is facing a major problem regarding their price. Even though we have a sufficient amount of seafood products, still the price of products are much higher than any source of protein. As a result, Bangladeshi people can't consume seafood in their Daily-to-Daily life.

Mainly there are 2 problems.

- a) **Instability of supply:** Seafood supply depends on seasonal availability. When fishing season comes, prices are usually lower, but in the off season, prices are much higher.
- b) **Intermediary problem:** The seafood supply chain has a lot of intermediaries between producers and consumer consumers, such as brokers, retailers. wholesaler. And this change of ownership at every step increases the price of the products. We must solve these core problems to decrease the price.

- **Storage and transport**

Another concern of the seafood industry is the storage and transportation system. Owing to high moisture content, temperature sensitivity, enzyme activity and fatty acid composition, seafood is prone to getting spoiled. And that's why during the distribution part of the supply chain, proper storage mechanisms along with improvised transport are required to be ensured.

Now for the problem of storage, focused must be exerted on the followings:

- a) **Humidity and temperature problem:** Most seafood comes from a cold environment and when the temperature shifts drastically to a higher level, it increases bacterial growth and enzyme activity ultimately degrading the quality of the food.
- b) **Contamination and limited storage space:** Similarly, contamination and limited storage space works as a benefactor to the spoiling process.

And for the transportation part, the below problems are recommended to work on for ensuring smooth distribution channel:

- a) **Proper ventilated fish vehicle:** Lack of improvised cold transport often leads to seafood spoilage.
- b) **Poor infrastructure:** Inadequate transportation infrastructure, such as poor roads, limited ports, and lack of refrigeration facilities, can lead to delays, damage, and spoilage of seafood products.

All the above-described problems are directly and indirectly connected to the marketing problem of the seafood industry. And by means of solving them it is possible to solve the ultimate problem i.e. the marketing problem.

## **Methodology**

The seafood industry is a complex and multifaceted sector that involves various stages, from fishing and farming to processing, distribution, and marketing. Here is a general overview of the methodology used in the seafood industry with prepare a survey:

### **First: Do you like seafood?**

The survey results show that 90% of respondents enjoy seafood, while only 10% do not. This indicates a strong preference for seafood among the participants, which could reflect broader trends in dietary choices and cultural influences.



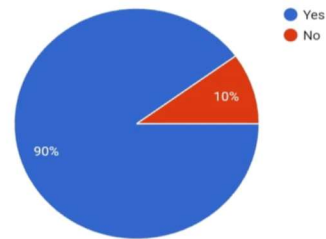
## Highlights

1. Majority Preference: 90% like seafood.
2. Minority Dislike: Only 10% do not enjoy it.
3. Positive Trend: Strong inclination towards seafood consumption.

1. Do you like seafood?

60 responses

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## Second: what do you think of seafood as for health?

The survey regarding opinions on seafood and health gathered 250 responses. The results indicate that a majority (55.7%) consider seafood to be good for health, while 29.5% rated it as best. A smaller portion (14.8%) viewed it as better, with no responses showing it as bad or worst.

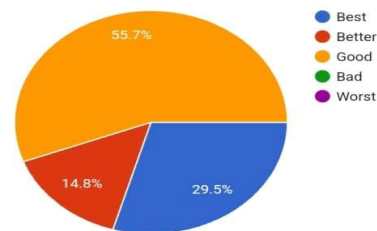
## Highlights

1. Majority view seafood as good (55.7%)
2. Nearly a third rate it as best (29.5%)
3. A smaller group considers it better (14.8%)
4. No negative responses recorded

2. What do you think of seafood as for health?

61 responses

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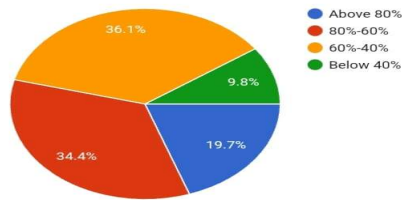
## Third: How popular are seafood items among your family, friends or relatives?

The popularity of seafood items among family, friends, and relatives varies significantly, with 19.7% of respondents indicating that seafood is extremely popular (above 80%), while 9.8% indicating low popularity (below 40%).

## Highlights

1. Extremely Popular: 19.7% of respondents love seafood above 80%.
2. Moderately Popular: 34.4% enjoy seafood between 80%-60%.
3. Average Appeal: 36.1% like seafood between 60%-40%.
4. Low Interest: 9.8% have a preference below 40%.

3. How popular are the seafood items among your family, friends or relatives? [Copy](#)  
61 responses



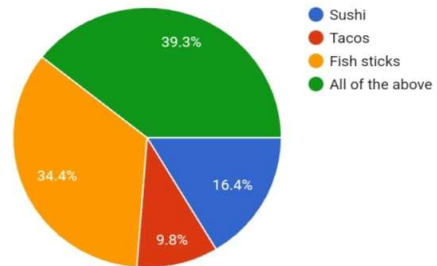
## Fourth: What is a common type of seafood product?

The responses to a survey on common seafood products reveal that fish sticks are the most popular choice at 34.4%, followed closely by the option “All of the above” at 39.3%. Sushi and tacos hold smaller shares at 16.4% and 9.8%, respectively.

## Highlights

1. Fish sticks lead with 34.4% popularity.
2. “All of the above” option is significant at 39.3%.
3. Sushi accounts for 16.4% of responses.

4. What is a common type of seafood product? [Copy](#)  
61 responses



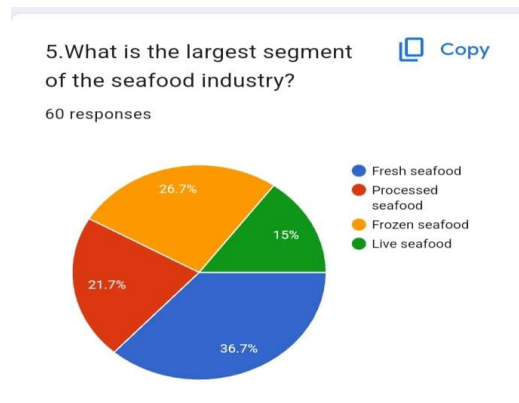
## Fifth: What is the largest segment of the seafood industry?

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The largest segment of the seafood industry is fresh seafood, accounting for 36.7% of the market. This is followed by frozen seafood at 26.7%, processed seafood at 21.7%, and live seafood at 15%.

## Highlights

1. Fresh seafood dominates at 36.7%
2. Frozen seafood holds 26.7%
3. Processed seafood makes up 21.7%
4. Live seafood accounts for 15%
5. Overall, fresh and frozen combined cover over 63%

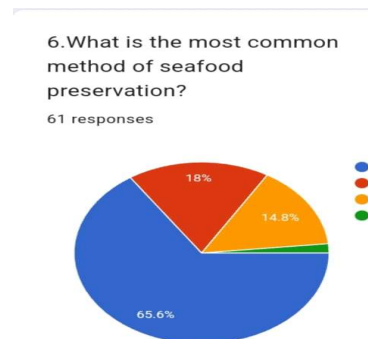


## Sixth: What is the most common method of seafood preservation?

The most common method of seafood preservation is freezing, accounting for 65.6% of responses. Other methods include canning (18%), drying (14.8%), and a very small percentage for smoking.

## Highlights

1. Freezing is the top method of preservation.
2. Canning ranks second in popularity.
3. Drying is used by a smaller portion.
4. Majority prefer freezing for quality retention.

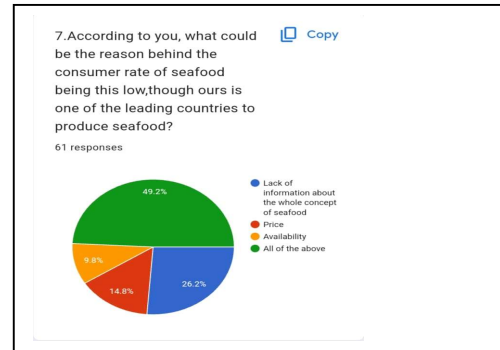


**Seventh: According to you, what could be the reason behind the consumer rate of seafood being this low, though ours is one of the leading countries to produce seafood?**

Consumer rates for seafood in a leading seafood-producing country are surprisingly low, with various factors contributing to this issue. A survey of 61 responses indicates that lack of information, high prices, and limited availability are significant barriers, with nearly half of respondents citing all these factors as reasons.

### Highlights

1. Lack of Information: 26.2% of respondents believe insufficient knowledge about seafood impacts consumption.
2. Price Concerns: 14.8% pointed to seafood pricing as a deterrent.
3. Availability Issues: 9.8% noted that limited access affects consumer rates.
4. Combined Factors: 49.2% feel all mentioned reasons contribute to low consumption.

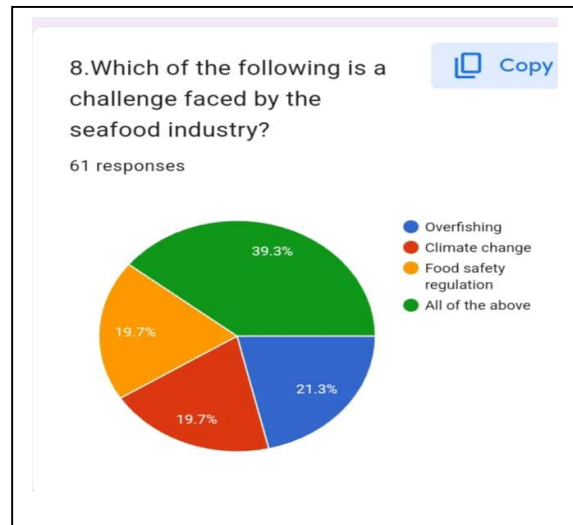


### Eighth: Which of the following is a challenge faced by the seafood industry?

The seafood industry faces several challenges, with a survey revealing that 39.3% of respondents believe all listed issues—overfishing, climate change, and food safety regulations—are significant problems. Overfishing leads with 21.3%, while climate change and food safety regulation both account for 19.7%.

### Highlights

1. Overfishing is a major concern.
2. Climate change impacts seafood supply.
3. Food safety regulations are critical.
4. 39.3% recognize all challenges.

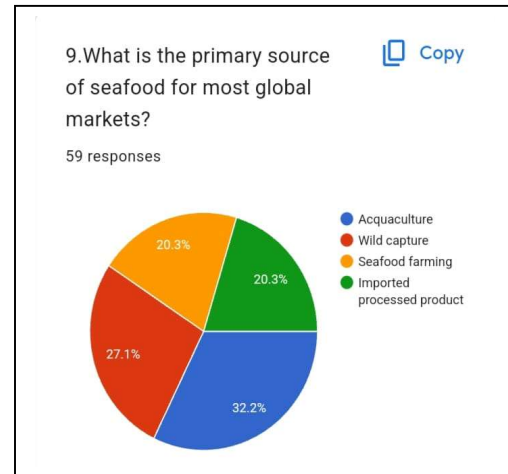


### Ninth: What is the primary source of seafood for most global markets?

The primary source of seafood for global markets is aquaculture, accounting for 32.2% of supply, followed by wild capture at 27.1%. Seafood farming and imported processed products each represent 20.3% of the market.

### Highlights

1. Aquaculture leads global seafood supply: 32.2%
2. Wild capture follows: 27.1%
3. Seafood farming shares equal stake: 20.3%
4. Imported processed products also at 20.3%

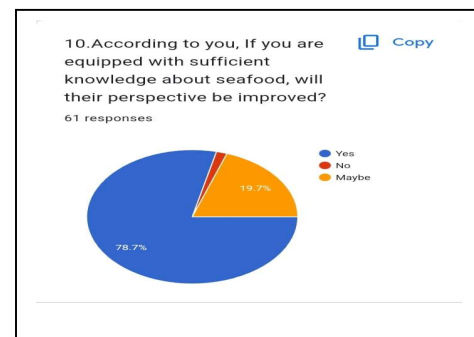


### Ten: According to you, If you are equipped with sufficient knowledge about seafood, will their perspective be improved?

A survey regarding the impact of seafood knowledge on perspectives shows that 78.7% believe increased knowledge can improve views on seafood, while only 1.6% disagree, and 19.7% are uncertain.

### Highlights

1. Majority Support: 78.7% think knowledge improves perspectives.
2. Minimal Opposition: Only 1.6% disagree with the notion.
3. Uncertainty Exists: 19.7% are unsure about the impact.
4. Positive Outlook: Most respondents see a benefit to knowledge.



### Summary

The current price distribution of a product shows that 35% goes to the product itself, while agents, brokers, transport, storage, wholesalers, and retailers take varying percentages. Two proposed

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pricing models adjust these distributions, emphasizing savings for consumers while altering the retailer's share.

## Highlights

1. Product Price: 35% allocated to the product itself.
2. Agent & Broker: Each receives 10%.
3. Transport & Storage: 10% each for logistics.
4. Wholesaler: 10% share in the distribution.
5. Retailer: 15% in the current model; 20% in Model 1.
6. Savings: Up to 35% in Model 2 for consumers.
7. Proposed Models: Two different approaches to pricing distribution.



## Results

### Possible Solutions for the problems mentioned above

- 1. For consumers perception:** In order to improve the perception of the consumers, we need to dispel the misconceptions of the people and show them the clear picture. And to accomplish this the followings are recommended:
  - I. Educating and spreading awareness:** Consumer Perception can be improved by highlighting the nutritional value of seafood and its preparation methods to the consumer through educational campaigns and arranging programs on TV, radio and other media.
  - II. Informing people about the local and seasonal options:** Using charts in the markets depicting the local and seasonal options and their price rate according to availability can also attract consumers. Besides, information about this can also be broadcasted in radio or newspaper.
  - III. Addressing the myths and misconceptions:** Debunking the myths and misconceptions regarding whether it is halal or haram, is it good for health or not, fresh is better than frozen, all the seafoods are smelly, and this list goes on and on. People should be enlightened on all these aspects through social media and all other platforms both indirectly and directly.

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- IV. Introduce eating seafood as a normal practice:** By collaborating with Influencers, chefs and nutritionists by using both online and offline platforms it can be introduced as a normal practice. Apart from celebrity personalities, adding normal professional people to the programs can clear the myth of seafood being only 'The rich people's food'.
- V. Sharing stories:** Narrating about the journey of the aqua farmers and fisherman's and highlighting the process of fish procurement to how it reaches the consumers can ensure transparency. This can be made more effective by using visual contents and infographics on social media along with tv or radio programs. And to connect with the consumers deeply it is suggested to use local languages while visiting and talking to the locals of different remote places.

**2. For pricing:** Intermediary and instable supply are related to each other as both depend on supply and demand. Here are some possible solutions to this problem.

**Solution of instable supply:** Creating public awareness can help people to know more about the supply and availability of a product and to do so we must use public attention-seeking media such as newspaper, TV advertising, social media advertising and report publication. We must let people know when the time is perfect for seafood. And the possible price of it so that they can know about the market condition.

**Solution to the intermediary problem:** We see that after catching the fish the fishermen sells the fish at a low price, but when the collector or the broker buys it hand sells it at a much higher price to make more profit than the next hand wholesaler and retailers also do the same, so a customers have to pay much more for a product which is not that much of an expensive item. Removing this hand could result in a price drop, but to do so we must follow some steps. These are

- Create a chain of supply from producer to consumer and make sure that there is no need for any intermediary except the transport facility.
- Improve the delivery line so that there is no need for any extra hand to pass the fish to customers.

### **3. For Storage and Transport:**

#### **Storage**

- a) **Humidity and temperature control:** Use refrigerated storage facilities with precise temperature control (usually between 0°C and 4°C) to maintain optimal storage conditions also use proper chemical to prevent humidity
  
- b) **Limited storage space:** To solve limitations of storage for applying smart storage containers that can monitor temperature, humidity, and other conditions in real-time, providing alerts if conditions are compromised. Provide training and education to employees on proper storage, handling, and handling practices to ensure consistency and quality.

## Transport

Solution of the Transport problems are

**Transportation infrastructure:** Investing in upgrading transportation infrastructure, such as building new roads, ports, and refrigeration facilities, can improve the efficiency and reliability of seafood transportation.

In our paper we focused on the marketing side of our seafood where main problems were price, storage, consumers perception and transport and above we gave some possible solutions so that the problems we are facing can be eradicated and our seafood sector can grow rapidly.

## Discussion

This research highlights key strategies for enhancing seafood marketing by focusing on consumer engagement and purchase propensity. Effective marketing must prioritize transparency, sustainability, and clear communication, which resonate with today's ethically conscious consumers. Additionally, leveraging digital platforms with engaging and personalized content is crucial for building stronger consumer relationships. By adopting these approaches, seafood marketers can boost consumer interest and drive purchasing behavior, ultimately contributing to greater market success.



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