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Original Research Article

Challenges of Dry Fish Supply in Bangladesh: A Study on Chittagong Dry Fish Market

Mouri Mehtaj*¹, Ananya Das²

¹Lecturer, Department of International Business, Faculty of Business Studies, University of Dhaka, Bangladesh

²Student, Department of International Business, Faculty of Business Studies, University of Dhaka, Bangladesh

*Corresponding Author

Mouri Mehtaj

Email: mourimehtaj@ymail.com

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Abstract: Dry fish is one of the traditional food items in Bangladesh. In different cultural programs, we prefer dry fish as a part of celebration. Chittagong is the main area from where dry fish are being supplied to other places of Bangladesh. Unfortunately, the supply of dry fish is not smooth in our country. A number of problems are faced by all the parties involved in dry fish supply. The study has focused some of the major challenges by interviewing the selected respondents. This study might be helpful for our government to take necessary steps.

Keywords: Chittagong, dry, supply, challenges

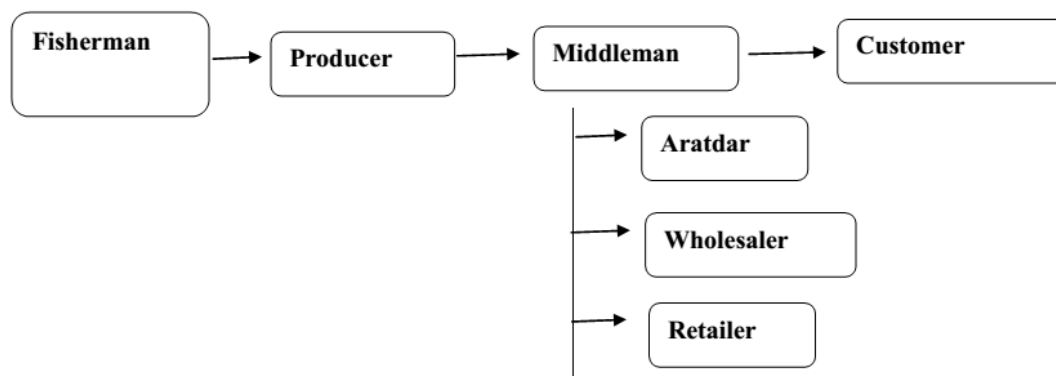
INTRODUCTION

Traditionally, people of Bangladesh like to eat dry fish as Bangladesh is a land of rivers. So, drying of marine fish is very common in the entire coastal areas of our country. Dry fish is demanding both in domestic and international markets. In dry fish supply, producers transfer fish from fishermen to dry fish yard. Then processed dry fish are sent to aratdar, wholesaler, retailer and then to final Consumer consecutively. In coastal areas of Bangladesh like Chittagong, there is huge production of dry fish but it can't meet the demand of customers. Despite having huge production in Chittagong Asadganj, Cox's Bazar, Syedpur and Moheshkhali, suppliers cannot fulfill all the need of customers because of some supply problems.

Supply problem has made dry fish business limited to some areas. It has also forced customers to pay at high prices. In some areas of Bangladesh, dry fish are not supplied or supplied in a low amount

despite of having high demand. People do not get enough supply of dry fish, which raises the price of dry fish. Sometimes it becomes triple than the production price. It ultimately establishes oligopoly for dry fish market. Here giant traders, brokers, dealers, wholesalers have the oligopoly power. They always try to keep the price of dry fish high by supplying low amount. Giant traders sometimes create market barriers which do not allow dry fish market to be competitive. But, because of increasing demand and favorable environment, Bangladesh has a great potentiality to gain foreign currency by exporting dry fish.

This study has tried to analyze how the supply of dry fish actually works. Moreover, this study is expected to provide some useful information to traders, fishermen and policy makers to help them formulate programs and policies to minimize the supply chain problems of dry fish.



Graph 1: Supply Chain Process of Dry Fish in Bangladesh

Objectives

The main purpose of the study is to explore the challenges of dry fish supply in Bangladesh; especially the situation of Chittagong dry fish market. Apart from this main objective, there are several specific objectives which are given in the following:

- To identify the problems that create gap between the demand and supply of dry fish
- To explore how those shortcomings are creating gap between demand and supply of dry fish

LITERATURE REVIEW

Islam (2016) has found that irrespective of species of dry fish marketed, marketing margin and profit are relatively higher compared to frozen fish marketing. High priced dry fish has high marketing cost although intermediaries of dry fish supply chain get higher marketing margin as well as marketing profit (Islam, 2016). Export marketing and marketing profit depend mainly on the demand of world market (Islam, 2016). Ahmed (2006) showed high value added goods ensures high profitability. Some barriers of marketing dry fish such as illegal extortion to the movement of dried fish are hampering this business (Ahmed, 2006).

Existing institutional and non-institutional barriers like transportation cost toll, taxation, price exploitative market players are influencing the supply of dry fish negatively (Shamsuddoha, 2007). Non-tariff measures (NTMs) acts as critical barrier for dry fish market despite having huge international market demand and prospect (Shamsuddoha, 2007). Because of not meeting Sanitary and Phytosanitary (SPS) measures and TBT obligations, our dry fish market can't expand in international market (Shamsuddoha, 2007).

Marketing channel of dry fish are not fixed (Nayeem, 2010). It differs according to the species of dry fish, areas, seasons etc (Nayeem, 2010). The socio-economic condition of retailers in dry fish business is not good; though 75% retailers are happy with their present situation (Nayeem, 2010). The producers, wholesalers and retailers have adequate knowledge

about the production techniques of traditional dry fish but they have little or no idea about the quality management (Nayeem, 2010). Marketing chain of dry fish varies from season to season and place to place (Nayeem, 2010).

Marketing cost, marketing margin, and marketing profit are high in consumer market than primary and secondary market ((Faruque, 2012). Some problems of dry fish supply are common for all stakeholders. Price increases from producer to consumer in dry fish marketing channel (Amin, 2012). Same species of dry fish produced in different areas like Kutubdia, Asadgonj, ChalkBazar are sold in different prices (Amin, 2012). Sometimes price increases nearly double by supplying from producer to consumer (Amin, 2012). In a marketing channel, including more intermediaries, the price of dry fish raises higher (Amin, 2012). Some problems faced by processors and intermediaries are like inadequate capital, natural calamities, lack of scientific knowledge, technology, price instability (Amin, 2012).

Intermediaries of dry supply; especially fisherman are not good which is a reason of undesired costing on the real value of the product (Hossain, 2012). Storage problem, pricing problem, imbalanced profit margin ratio among the supply chain intermediaries are some negative sides (Hossain, 2012).

The dry fish have high price because they have high marketing cost (Haque, 2015). It results in high marketing margin and profit in domestic dry fish market (Haque, 2015). Processing and transportation costs are huge for high valued species (Haque, 2015). Marketing margin and marketing profit are also very high in export market (Haque, 2015). (Ferdoushi, 2015) did her survey on different species of dry fish produced in Rangpur. There are some problems exists in the marketing of dry fish which have influence on price setting and marketing profit ((Ferdoushi, 2015).

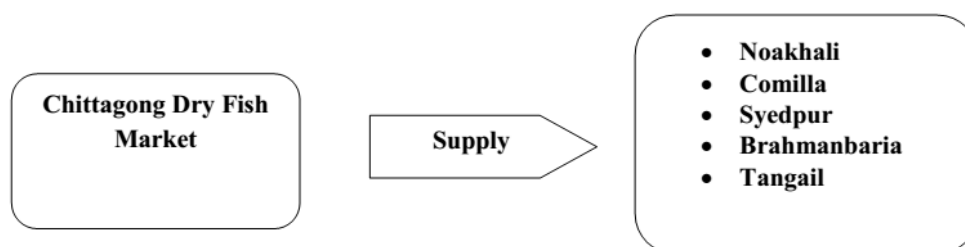
Lack of capital, higher transport cost, inadequate storage facilities and unhygienic market place are some challenges in dry fish supply (MM Hasan1, 2016). Providing participatory training for the producers to manufacture good quality products, giving loan facilities to poor retailers, ensuring proper marketing assistance and introducing modern packaging techniques are some of the possible solutions in this regard (MM Hasan1, 2016).

Thus, a number of studies have been conducted on dry market of Bangladesh. All the prior studies have focused on supply chain and value chain of our dry fish market. Moreover, they focused different districts of Bangladesh such as Sylhet, Rangpur and so on. Unfortunately, these areas have a minor contribution in our dry fish market. None of them has explored the supply problems prevail in Chittagong which is the main market for our dry fish. So this study has solely concentrated on the challenges exist in

supplying dry fish from Chittagong dry fish market to other areas like Noakhali, Comilla, Syedpur, Brahmanbaria and Tangail.

RESEARCH DESIGN

This study was descriptive in nature. All the data were collected from Chittagong dry fish market. Purposive sampling technique had been applied to gather relevant data. A structured questionnaire had been developed and used for conducting interview where both closed-ended and open-ended questions were included. Chittagong dry fish market has been identified for the research because the lion's share of dry fish production has been performed here. For the analysis, 70 respondents were selected among which 7 were fishermen, 8 were dry fish producers, 8 were farias, 8 were aratdars, 16 were wholesalers, 11 were retailers and 12 were customers. The collected data were analyzed and presented from different perspectives.



Graph 2: Supply of Dry Fish from Chittagong to other Areas

Analysis and Findings of the Study

Identified Challenges Faced by Fishermen

Financial problem

Fishermen of our country are not solvent. For catching fish, they need to borrow money called "Dadan" (non-institutional money lending) from aratdars at high interest rate to buy raw materials like boat, fishing trap and nets. Most of the time they don't catch enough fish, sometimes they return with empty hand which makes them unable to repay their debt.

Sea-rover problem

When fishermen go for catching fish in the middle of the sea, they sometimes fall under the attack of sea-rover whom they have to give all of their money, boat as ransom. It ultimately causes a great loss to them.

Seasonal Business

Fishermen can catch fish for six months (April to September). They have to depend on the earning of these six months for their whole family. It makes them unemployed for other six months.

Pricing problem

Fishermen are bound to sell their fish to particular person that weaken their bargaining position.

That's why it creates undesired costing on the real value of dry fish.

Illiteracy

In Bangladesh most of the fishermen are illiterate as they don't get the chance of schooling. They are unaware of the new technology that is used to trace fish easily. Sometimes they go for catching fish but return back with empty hand because they don't know the situation of fish under the sea.

Influence of musclemen

Sometimes fishermen become the victim of extortion by the musclemen. Musclemen exploit fishermen illegally. Fishermen have to pay fees to the musclemen from their daily earning. Sometimes musclemen take fish from the fishermen without any payment if they fail to give fees to them.

Natural calamities

Fishermen sometimes face different types of natural calamities like cyclone, storm etc. These calamities refrain them from catching fish and their earning stop for this time.

Identified Challenges Faced by Dry Fish Producers

Nature problem

Not all types of dry fish are produced in all types of weather over the year. They can be produced mainly in winter season because availability, easy processing and taste. So, dry fish producers have not much work left to do for the other months of the year except to preserve these dry fish.

Pricing problem

Dadan makes producers bound to go for 'conditional engagement' in dry fish business. In dry fish market, pricing are done by auction where different parties of dry fish producers tell the price to the ear of "Chowkidar." Then "Chowkidar" sets the price at the highest call told by one of the parties of dry fish producer. After that, all dry fish producers have to buy at this price.

Lack of technical and scientific knowledge

In our country, most of the dry fish producers are not educated. They don't use any standard method to produce and preserve dry fish. Rather they produce it in traditional way. They produce dry fish in an open area under the sky where different types of insects and sands got mixed which makes the dry fish unhealthy.

Price instability

In dry fish business, the price of dry fish is not stable. It depends on the supply of raw fish from fishermen. In the winter season, plenty of fish are available to make dry fish. But if fishermen can't find fish to catch, then the dry fish producer have to pay at high price for buying fish. Then eventually they have to raise the selling price.

Identified Challenges Faced by Aratdars

Political conflicts for raw material

Sometimes aratdars have to face problems for some political incidents like strikes, road blocks etc. During strikes, aratdars of other districts like Tangail, Noakhali, Bramhonbaria can't come to buy dry fish. Sometimes dry fish get sweat for long time road blocks.

Transactional challenges

Most of the time, Aratdars buy and sell dry fish on credit. For this reason, they face transactional problem when they deal with other districts' people. This advantage is taken by some of these aratdars and retailers, especially those who are newcomers. They don't get their payment which also make them defaulter. Because if they don't get their money back, they can't repay their loan taken from different banks.

High interest rate

In dry fish supply, aratdars need huge amount of capital to do business. As they can't afford to invest this amount individually, they need to take loan from

different banks at a high interest rate. Sometimes the rate is more than their profit. So, small aratdars might have to face loss in dry fish business.

High tax on importing dry fish

We have the capacity to meet 70% need of our customers by domestic production. For fulfilling the remaining 30%, we import from other countries like India, Srilanka, Myanmar and Pakistan. Government imposes high tax on the import of dry fish which sometimes doubles up the price of imported dry fish.

Imbalance between supply and demand

Although we have huge production of dry fish, it is not sufficient to meet all the needs of customers. In summer and rainy season, dry fish can't be produced although demand remains same for all over the year.

Quality problem in off-season

As dry fish are stored for long time and aratdars don't use any preservation techniques, the quality of dry fish become worse. As they are unaware of advance method of preservation, the quality decreases consistently.

Low demand of dry fish in rural area

Rural people prefer to eat raw fish because the price of 1/kg puti fish is 50-60 taka. When same puti fish become dry fish, the price rise to 200—250 taka per kg. It is more than triple of the price of raw fish which discourages aratdars to expand their business in rural areas.

Unconsciousness about fish production

There was a trend among our fishermen to catch the fish during their reproduction time which causes scarcity of fish in the sea. So, dry fish producers can't get fish which hampers the business.

Water pollution by foreign country ship

In the Bay of Bengal, not only people from Bangladesh but also other neighboring country people like India, Myanmar, go there to catch fish. They go there with their big ships and throw their wastage into the water. It contaminates the water and makes thousands of fish to die.

Authority problems

In our sea port, the security system is not strong enough to ensure security. Sometimes foreign country ships not only enter into our port but also catch fish. In sea port where 10 coastguard needed, we barely have two or three persons who also are not efficient to guard the port and capture the sea-rovers.

Lack of government surveillance

Although our climate is favorable for producing dry fish, it can't meet the need of domestic

customers because of the lack of government surveillance. If it is given proper surveillance like importing advanced machineries and technologies at low tax, dry fish business would be developed.

Illiteracy

Most of the aratdars are illiterate and do business as a family tradition. They are unaware of the different laws and regulations which are related for the improvement of the business. Most of the time, they don't know about the technology they are using. Sometimes, they are unaware of advanced technology which can be beneficial for their business.

Lack of consciousness about market

As most of the aratdars are illiterate, they don't know the strategy of expanding their business. They don't even know the actual demand of dry fish across the country. Sometimes in some places, there is demand of dry fish but aratdars can't supply because of unconsciousness.

Identified Problems Faced by Wholesalers

Low availability of retailers

Now-a-days, some retailers don't go to wholesalers for buying dry fish. Rather they prefer aratdars to buy at low price which causes problem for wholesalers. As a result, wholesalers can't sell dry fish regularly. They have to use cold storage to keep the unsold dry fish which is not affordable for all.

Syndicate problem

As dry fish are produced in winter season and sold in whole year, aratdars use cold storage to store dry fish for other seasons. Sometimes aratdars use storage for storing huge amount of dry fish to create artificial demand and raise the price for which wholesalers can't get enough supply of dry fish.

Reservation problem

Dry fish are stored for the time when there will be no supply. But to reserve dry fish in cold storage is very expensive to wholesalers. They cannot afford to hire a whole cold storage warehouse individually. Sometime they share a cold storage warehouse with other wholesalers.

Packaging problem

After receiving the dry fish from aratdars, wholesalers have to package according to their size before selling to retailers and customers. Packaging is very sensitive for dry fish. As a large amount of packets are used daily, it is not possible for wholesalers to check each of the packet every time.

Low import

As government imposes high tax on the imported dry fish from India, Srilanka and other

countries, wholesalers can't get the supply of dry fish. Because low import, aratdars raise the price for selling to wholesalers which is profitable for aratdars; not for wholesalers.

Lack of consciousness about market

Wholesalers are not literate and have very few knowledge about business. So, they don't bother about price raising by the syndicate of aratdars. They can't take actions against syndicates of aratdars.

Identified Problems Faced by Retailers

High competition

The entrance of new middlemen causes competition for the retailers to get the customer satisfaction. Retailers also have to face problem in buying dry fish from the wholesalers because sometimes middlemen go to aratdars to buy dry fish in low price and sell them to the customers less than the price of retailers.

Quality problem

Dry fish reaches to the retailers one or two days later after fish are being processed. Sometime it may take one or two week to supply to retailers of Tangail, Comilla, Bramhonbaria and Noakhali. It creates damage to the dry fish which is a factor of loss.

Financial problem

Retailers of dry fish don't get any help like 'Dadon' from aratdars. They have to borrow it from banks by mortgaging their personal assets. If they fail to repay the money, they will be declared as loan defaulter and have to loss their mortgaged assets.

Warehousing problem

Hiring warehouse individually is very expensive for retailers because funding facilities are not available. But warehouse is needed for retailers to run their business. So, to solve the warehouse problem, two or three retailers make a deal of hiring warehouse for a certain time and bear the cost equally. Sometime, wholesalers rent their warehouse to the retailers at low cost.

Price setting problem

In dry fish market, price are changing randomly. There is no fixed price at which all the retailers have to buy and sell. At which price, dry fish are going to be sold depends on the bargaining price of the retailers and customers. As competition increases because of the entry of new middlemen, customers buy from whom they can buy at low price. For this reason, retailers face the problem of price setting.

Illiteracy

Retailers of dry fish business know what customers want to eat, from whom they can buy at low

price and how to supply to customers. But they are unaware about the increasing demand of dry fish in different areas of Bangladesh. They don't try to expand their business in those areas. They can't identify the problems they are facing though their businesses are not running properly.

Poor infrastructure of market

If there can be a established wholesale market, then retailers might face less problem. They can buy dry fish from them when they need. They don't have to go to the area which is far and having high transportation cost. So, a proper infrastructure of our dry fish market can solve many problem of retailers.

Market Barriers

Two or three businessmen who run their business both as wholesaler and retailer create market barriers. They don't give the opportunity to the new wholesalers and retailers to enter into the business. They don't want to lose the control they hold in these areas. They sell limited types of dry fish in these areas because they are both wholesaler and retailer. They hold the monopoly power of dry fish business in these areas and create market barriers.

Identified Challenges Faced by Customers

Unawareness of different dry fish species

A number of customers don't know much about different species of dry fish that are produced in our Bangladesh. As customers know about few species like Churi, Shidal, Chingri shutki and other low priced dry fish, they don't prefer having dry fish. For this reason, retailers don't bring all types of dry fish everywhere.

Unwillingness to buy dry fish

The people of rural areas prefer eating raw fish instead of dry fish because of expense. Sometimes dry fish are sold in double price which makes rural people avoid dry fish and causes low demand of dry fish in the rural areas like Tangail, Comilla, Noakhali and so on.

Limitations of the Study

Every study has some limitations. This study is not different in this regard. The major constraint of this study was respondents' unwillingness to provide information. All of them were not cooperative and helpful. Moreover, lack of time, financial assistance and cost are the reasons for not covering all the challenges from all the dry fish markets. The study only focused Chittagong dry fish market and used a limited amount of samples.

Conclusion

The significance of dry fish production, trade and consumption is rarely acknowledged and understood in our country. However, dry fish is an

unavoidable food in our culture. This study would provide an idea about the challenges faced by different intermediaries like fishermen, producers, farias, wholesalers, retailers of dry fish supply business. This information might be useful for the government to improve the quality of various dry fish produced and marketed all over the country.

REFERENCES

1. Ahmed, M., Islam, M. N., & Shamsuddoha, M. Value Chain Analysis in the Dry Fish Production and Marketing of Post Harvest Fishery Products (PHFP) in the Coastal Belt of Bangladesh.
2. Fersoushi, Z., Rashed, M., Zafar, M. A., Roy, V. C., & Islam, S. (2010). Species availability and marketing system of traditionally dried fish in Rangpur division of Bangladesh. *structure*, 10, 8.
3. Haque, M., Rabbani, M. and Hasan, M. (2016). "Efficiency of Marine Dry Fish Marketing in Bangladesh: A Supply Chain Analysis." *The Agriculturists*, 13(1), pp.53.
4. Hossain, A., Hossain, M. A. R., Abdulla-Al-Asif, S. A., & Satter, A. 1Department of Fisheries Biology and Genetics, Faculty of Fisheries, Bangladesh Agricultural University, Mymensingh, 2202, Bangladesh 2Department of Aquaculture, Faculty of Fisheries, Bangladesh Agricultural University, Mymensingh, 2202, Bangladesh.
5. Hossain, M. (2018). "Fish species availability and marketing system of fish in different markets of Noakhali District in Bangladesh." *World Applied Sciences Journal*, 22(5), 616-624. [online] Available at:
6. http://www.academia.edu/5262768/Fish_species_availability_and_marketing_system_of_fish_in_different_markets_of_Noakhali_District_in_Bangladesh h_ World Applied Sciences Journal_22_5_616-624 [Accessed 11 Apr. 2018].
7. <http://www.fisheriesjournal.com/vol3issue2/3-1-72.1.html> [Accessed 11 Apr. 2018].
8. Islam, M. R. (2006). 18 Managing Diverse Land Uses in Coastal Bangladesh: Institutional Approaches. *Environment and livelihoods in tropical coastal zones*, 237.
9. Nayeem, M. A., Pervin, K., Reza, M. S., Khan, M. N. A., Islam, M. N., & Kamal, M. (2010). Marketing System of Traditional Dried and Semi-Fermented Fish Product (ChepaShutki) and Socio-Economic Condition of the Retailers in Local Markets of Mymensingh Region. *Bangladesh Research Publication Journal*, 4(1), 69-75.
10. Nowsad, A. K. M. (2007). *Participatory training of trainers: a new approach applied in fish processing*. BFRF.
11. Present status of dried fish markets in Sylhet of Bangladesh. (2016). *Progressive Agriculture*, 27(2), pp.235.

12. Shamsuddoha, M. (2007, October). Supply and value chain analysis in the marketing of marine dried fish in Bangladesh and non tariff measures (NTMs) in international trading. In *Paper/Poster Prepared for Presentation at the 106th Seminar of the EAAE, Pro-poor Development in Low Income Countries: Food, Agriculture, Trade, and Environment* (pp. 25-27).