

THE EXPORT TREND OF SHRIMP INDUSTRIES IN BANGLADESH: AN ANALYSIS

FARHANA AKTER

Assistant Professor, Institute of Business Studies, Darul Ihsan University &
Former Assistant professor,
Department of Business Administration
Uttara University & Visiting Faculty -Member,
Stamford University Bangladesh, Dhaka, Bangladesh
E-mail: prof.farhanaakterbd@gmail.com

**This paper had been properly reviewed and accepted by our editorial-board for publication in Scirj: December'2013 issue, online & printed version; ISSN: 2201-2796 (Registered under National Library of Australia) but in case of miss-communication from the author (who is now working as an Adjunct Assistant Professor at Bangladesh Open University, Gazipur, Bangladesh and also worked at Gono University, Bangladesh) we were unable to publish this paper on that time. Now, here, this paper will be available in Scirj: September'2017 issue in the following link: <http://scirj.org/current-issue.php>*

Abstract : The contribution of *FROZEN SHRIMP* to economic growth and GDP is quite significant for Bangladesh and in the last few decades, the contribution of *FROZEN SHRIMP* has occupied the 4th position (1st-RMG, 2nd Jute-goods, 3rd Tea) in the list of total exportable commodities of Bangladesh. Recognizing the importance of export marketing of frozen shrimp in Bangladesh, this research findings shows that the contribution of fisheries sector is 4% to 5% in BD.GDP and 8% to 10% to total export earnings, about 12 million people directly and 10 million people indirectly are associated with this sector for their livelihood and about 60% of total animal protein in the diet is supplied by *FISH & FISHERIES SECTOR* alone for the total world-population. The total export earnings of Bangladesh is \$25 billion and import is \$24 billion according to the fiscal year 2010-2011. The main export partners of Bangladesh are US 31.8%, EU 12.9%, Germany 10.9%, UK 7.9%, France 5.2%, Netherlands 5.2%, Kuwait 4.9%, Japan 4.5% and Italy 4.42% in the fiscal yr.2010-2011 and the main import partners are China 11.4%, Singapore 9.1%, India 8.5%, Hong Kong 7.1%, Japan 6.5%, U.S 5.1%. The Export Processing Zones in Bangladesh are Chittagong (estb.1983), Dhaka (estb.1994), Comilla (estb.2000), Mongla (estb.2001), Iswardi (estb.2005), Uttara (estb.2006), and Karnafully (estb.2007). This exploratory research report also discusses that Bangladeshi shrimp exporters did experience some safety problems, and so, FAO, WHO, US-FDA are assisting in the preparation of a fish safety and quality control program for the shrimp-processing-plants in Bangladesh based on the Hazard Analysis Critical Control Point (EU-HACCP system-a global/international branding standardization for sea-food) and it is expecting within 2020, all fish/shrimp-processing-plants in Bangladesh can go under in EU-HACCP- system whether it is the public or private organization as well as can play more important role to the overall economic growth and GDP in Bangladesh.

KEY WORDS: EU, FAO, HACCP, WHO, BFFEA- BFFEA, EU, EPB, EPZ, EFTA, ACU, COMECON, SERA, OPEC, NCB, BSTI, BSC, OMIS, FPL, BB, DOF, IQF, CCI, CIF, MT, FIQC.

I. INTRODUCTION

1.1 Introduction:

Bangladesh, the largest delta country and has ranked as the 47th largest economy in the world in 2010. It has about 1, 47, 570 square kilometers of territorial water with a total population of more than 160 million. Moreover, it is a country criss-crossed by innumerable river, rivulets, canals, lakes which offer one of the vast inland fisheries resources in the world. So, it is easily said that now-a-days, FISHERIES SECTOR is playing an important role in the economy of Bangladesh. It contributes 4% to 5% to BD.GDP and about 8% to total export earnings. About 12 million people directly and 10 million people indirectly are associated with this sector. The Gross National per capita income of Bangladesh is US\$ 700 according to the fiscal yr.2010-2011 which remains too low as compared to other South Asian countries like India, Pakistan and Srilanka. According to the World Bank, 'About half of the populations of this country are living below poverty level'. The annual GDP growth of this country is 6.51%, which is lower than the expectation of 7% to 8%. The inflation rate are also keeping very high for the last few years. National savings of the country is also substantially low. The speed of employment generation is not significant. The technological base of the country is very

poor. The labor forces by occupation in Bangladesh are agriculture -45%, industry-30%, services-25% and unemployment is 5.1% according to the fiscal year 2010-2011. The country has done less well in its exporting, however, in expanding its export base--garments account for more than three-fourths of all exports, dwarfing the country's historic cash crop, jute, along with leather, shrimp, pharmaceuticals, and ceramics. At this backdrop, the importance of this study about 'The Export Trend of Shrimp Industries in Bangladesh' is very much important not only for its local economy but also in context of the global economy.

1.2 Objectives of the study:

This study will be beneficial in many ways, such as:

1. It tries to plan future investment in fish (especially shrimp) production and export market facilities in Bangladesh.
2. It helps to determine how an export- marketing research report is prepared from field work.
- 3.This report highlighted on the real frozen 'shrimp' export marketing system, prospect, problems and solutions in Bangladesh so that the exporters, businessmen, teachers, students and who are related with this sector can gather necessary information about it.
4. It helps to improve the existing export marketing system of any company engaged in 'Shrimp Export Business'.
5. It enables to determine whether a new company is justified to go in for the frozen fish export market.

1.3 Methodology of the Study:

The following 'Time- Range' is processed to prepare this paper:

Table-1: The Time range for preparing this study:

S.L No:	Steps:	Time-Range:
1.	Specifying research objectives.....	Couple of days.
2.	Preparing a list of needed information.....	1 -2 months
3.	Selecting a sample type	5-7 days.
4.	Determining Sample Size.....	5-7 days.
5.	Organizing and carrying out the field- work..	1 month
6.	Analyzing related data & information.....	1 month
7.	Studying related books, papers & journals.....	1-2 months.
8.	Reporting the findings.....	15 -20 days
Total time =		6 months (apprx.).

Table-1: The Time range for preparing this study.

Source: Field Study .

This paper has been prepared on the basis of primary data (own survey) and secondary data analysis from some of shrimp processing industries in Bangladesh as the random sample and the secondary data of this study has been collected from different sources , such as- books, academic, articles, brochures of Bangladesh Frozen Foods Exporters Association (BFFEA),yearly publications from Bangladesh Bureau of Statistic (BBS),trade journals and internet.

1.4 Limitation of the study:

Most of the time, I have to depend on my own thoughts and opinions. So, this study is limited in many ways, such as-

1. There is no individual marketing department (but commercial department) in most of shrimp-processing-plants of Bangladesh and so I could not get sufficient information of strategic marketing decision in this sector.
2. Most of the Fisheries Companies have to be hesitant in furnishing relevant data.
3. It is not possible to visit all the 'Shrimp-Export Companies of Bangladesh'. So, in this context, this report is considered as a sample one.
4. In this study, it has been observed that most of the 'Shrimp Exporting Companies of Bangladesh ' have been facing many problems in shrimp-export marketing and processing system for lacking of proper international marketing-knowledge since their establishment.

II. A REVIEW OF EMPERICAL LITERATURE:

Knowledge of freshwater fish fauna of Bangladesh begins with the work of Francis Hamilton (Hamilton Francis,1822), Francis Day published accounts of marine as well as freshwater fish fauna of the subcontinent in 1878.Subsequently numerous other works contributed to the knowledge of fish and fisheries of eastern Bengal, now Bangladesh.

A member of the Revenue Board of Bengal, first investigated the possibilities of the fisheries sector in the province and as a result, a Directorate of fisheries was created and later merged with the Directorate of Agriculture in 1910 (Sir Gupta, KG.1908).In 1917, the Directorate of Fisheries had been separated but was abolished in 1923.There are listed 475 species belonging to 133 families from the marine and estuarine waters of Bangladesh (Hussain,1969).

Now-a-days, The shrimp cultivation is extensive in nature and 'The Bangladesh Fisheries Development Corporation' has constructed a modern fish harbor at Chittagong and fish landing centre at Cox's Bazar,Barisal,Khepupara,Patharghata and Khulna for marine catch and at Rangamati,Kaptai,Rajshahi and Dabor for freshwater catch. The harbor and all the centers are equipped with modern and hygienic facilities like berthing, auctioning, ice-plants, cold storage, freezer storage, fish vans etc. But the traders are often less interested in using these facilities due to ignorance and self - interest (Shafi Mohammad,1983).

In early 1986, Ministry of Fisheries and Livestock (MOFL) initiated a new fisheries management concept, called the New Fisheries Management Policy (NFMP).Objects of this policy were (a) to divert maximum gains from fish catching /fishery sector and (b) to enforce measures to sustain fisheries resources.

Recently, the leasing of water states is currently handled by the Ministry of Land (formerly Ministry of Land administration and Land Reforms).

For the overall development in fisheries sector, there are many acts have been formed in Bangladesh ,such as- Marine Fisheries Rules'1983,Fish Quality Control Act-1983,Shrimp Culture Act-1992 etc.

Institutional Set up of Shrimp Culture in Bangladesh (Ministry / Institutions Activities) into the following way:

- a) Ministry of Fisheries and Livestock, b) Shrimp Development and Co-operative Financial Institutions, c) Ministry of Land,d) Ministry of Irrigation, Water Management, e) Ministry of Commerce, f) Ministry of Industry, g) Ministry of Shipping, h) Ministry of Planning, i) Ministry of Foreign Affairs etc.

Besides, the following universities of Bangladesh , such as the UNIVERSITY OF DHAKA, UNIVERSITY OF RAJSHAHI, UNIVERSITY OF CHITTAGONG, BANGLADESH AGRICULTURAL UNIVERSITY, JAHANGIRNAGAR UNIVERSITY and KHULNA UNIVERSITY etc. are running and starting on some new courses on this area.

Actually, volumes, values, trends, estimates of foreign exchanges in Bangladesh's coastal brackish water shrimp export sector has grown over the past thirty years in response to expanded global demand for high quality sea food and attempts by successive Bangladesh governments since 1980's to liberalize and diversify the economy (Pokrant et al,2002).The subsistence shrimp culture is as old as 700years in South Asian region. Now--a-days, the vibrant fisheries sector in Bangladesh accounts for roughly 20 percent of the agricultural GDP while the growing livestock sector comprises around 12 percent.

III. EXPORT TRENDS OF SHRIMP IN BANGLADESH

3.1. Export Trends of Shrimp Industries in Bangladesh:

The total export earnings of Bangladesh is \$25 billion and import is \$24 billion according to the fiscal year 2010-2011.The main export partners of Bangladesh are US 31.8%, EU 12.9%, Germany 10.9%, UK 7.9%, France 5.2%, Netherlands 5.2%, Kuwait 4.9%, Japan 4.5% and Italy 4.42% in the fiscal yr.2010-2011 and the main import partners are China 11.4%, Singapore 9.1%, India 8.5%, Hong Kong 7.1%, Japan 6.5%, U.S 5.1%.The major exportable goods or products in Bangladesh are:

i) RMG ii) Raw Jute Fiber and Jute goods iii) Organic Tea, Black Tea and Green Tea iv) Shrimp/Fisheries sector v) Chemicals & Pharmaceutical products vi) Garments & Leather Products vii) Food & Beverage viii) White Sugar ix) Fresh Potatoes etc. There are about 75% foreign exchanges are earned from RMG. Sectors. And now-a-days, along with RMG 'fisheries sector' plays a dominant role in the economy of Bangladesh. It contributes 4.7% to GDP and about 8% to total export earnings. About 1.2 million people directly and 10 million people indirectly are involved in this sector for their livelihood. At present, in total world shrimp production, 4.2 1% is produced in Bangladesh .Thus the shrimp has become a golden fishery resources in Bangladesh.

So, from the overall discussion-it is easily observed that the prospect of ' The Export Trend of Shrimp Industries in Bangladesh' is so bright than any other countries of south Asia.

3.2. The following Table showing average percentage of exporting shrimps from Bangladesh to rest of the world in the year 1990-2010:

Table- 2:

Country	Average % of exporting
EU	39%
Japan	21%
USA	24%
Other Countries	16%
Total	100%

Table- 2: The Table showing percentage of exporting shrimps from Bangladesh to rest of the world in the yr. 1990 – 2010.

Source: Secondary data Analysis.

From the above tables analysis, we came to know that the frozen shrimp sector of Bangladesh has a good potential of its export performance. In our country, the existing processing plants have a total capacity of processing about 2,50,000 MT of fisheries product but actually about 40,000 MT are being processed by approx.58 plants because of the shortage of raw materials at present.

In the above Circumstances, if we can fulfill the shortage of raw materials as early as possible and if our Bangladeshi Shrimp & Fish Exporting Entrepreneurs can display their products according to modern way and can adapt themselves to the changing condition of the consumer’s demand in the developed countries, Bangladesh surely can achieve the highest position in this sector. So, it should be right to say that the ‘ Future Performance of Shrimp Export in Bangladesh’ is so bright than any other countries of Asia.

IV. ANALYSIS AND FIDINGS OF THE STUDY

The paper is based on secondary data from the Export Promotion Bureau (EPB), Bangladesh Bank, Bangladesh Bureau of Statistic (BBS) ,Bangladesh Frozen Foods Exporters Association (BFFEA),INFOFISH Trade News and many other sources. The data are observations on exports, imports and GDP. Annual nominal data on all variables are available from 1973 to 2011.

The Analysis of the study has been discussed under the following sub-heads:

4.1. The Scenario of ‘Shrimp as a Golden Fishery Resources in Bangladesh: A Historical Evaluation’:

4.1.1. A Historical Evaluation:

By the end of the 1970s, the Bangladesh seafood processing industry had expanded rapidly. But sanitary facilities, technology adaptation, and adequate training did not keep pace. Shrimp exports suffered in the late 1970s, and the U. S. Food and Drug Administration (US-FDA) placed seafood imports from Bangladesh under automatic detention. This was only the beginning of the export market problems arising from substandard product safety and quality that Bangladesh’s shrimp industry faced over the next two decades. This case study illustrates the actions taken by Bangladesh, with the aid of external partners, to overcome substantial obstacles to participation in this sector. Now-a-days, the 4th leading export item in Bangladesh is FROZEN SHRIMP and FISH , with a 7.3 percent share of the total export market. The major importers at the time were the European Union (EU), accounting for 34–50 percent of Bangladesh’s exports, the United States at 23–38 percent, and Japan at 15–26 percent, depending on the year. At that time, the value per kilogram of Bangladesh’s frozen shrimp was lower than average for the Asian region.

Furthermore, Bangladesh had a reputation for producing seafood that sometimes did not meet minimum international standards as specified by the Codex Alimentation Commission. With a low percentage of the world market, a lower-valued product, and a negative reputation in quality, Bangladesh has been a price taker, rather than a price-setter.

On July 30, 1997, the EU banned imports of fishery products from Bangladesh as a result of EU inspections of Bangladesh’s seafood processing plants. Inspections found serious deficiencies in the infrastructure and hygiene in processing establishments and insufficient guarantees of quality control by Bangladeshi government inspectors. They said, ' the only way Bangladesh can improve its export position in the shrimp market is to improve the safety and quality of its exports'. Safety improvements over the last two decades, with a major effort in the late 1990s, have been made by the industry and government, and by bilateral and multilateral agencies providing technical assistance. While the short-term loss in foreign currency from the EU ban was high for a developing country, the ban did increase the commitment by industry and government to raise product quality to meet international standards. Both exporters and government made major investments in plant infrastructure and personnel training in order to achieve international technical and sanitary standards. This included new employee acquisition and employee training, sanitation audits, plant repair and modification, new equipment, new laboratories, and other costs.

This Research has also determined that some Plants in Bangladesh improvements now met EU standards. Subject to certain provisions, the EU ban was lifted for six approved establishments for products prepared and processed after December 31, 1997. By July 1998, a total of 11 plants had been approved for export to the EU. Collective efforts by the industry, the Bangladesh Department of Fisheries, and the Bangladesh Frozen Food Exporters Association have continued to strengthen the export-processing sector.

In 2001 the value-added exports made up almost 25 percent of the total exports of 32,500 MT, valued at \$363 million. Technical assistance from FAO and INFOFISH continues to play a role in industry development by transferring simple, low-cost technologies for adding value and by matching buyers and sellers to facilitate market diversification. Industry and the government also continue to upgrade the export sector as a whole. By 2002, out of 65 plants licensed for export by the government, 48 plants had EU approval.

Improvements are making a difference because the unit price of exports has risen steadily over recent years, in contrast to the sharp decline in 1997. Some exporters are now recording an average unit price of more than \$15 per kilogram, a price comparable to that received by major exporters from the region. The average volume of exports has also increased from about 24,000MT in 1990–92 to about 30,200MT in 1999–2001. Improvements in food safety have thus set the stage for Bangladesh to become more competitive in the global market for seafood. Moreover, improvements in the shrimp sector have undoubtedly impacted the seafood and food-processing sectors as a whole, due to the intertwined nature of the food-processing industries in the country. Even in 2002.

However, Bangladeshi shrimp exporters did experience some safety problems, and more testing laboratories were established. Developing countries can often compete in world food commodity markets because export products can be produced at a lower cost than in developed countries provided the product can meet minimum safety and quality standards. To accomplish this, developing countries need assistance not only with technology, but also with training workers to use technology and conform to world food-handling, sanitation, and personal hygiene standards. This normally requires a cooperative effort between a country’s industry and government and its external partners. The

Bangladeshi shrimp export case demonstrates that these efforts can be successful. It shows that developing countries, with careful guidance and focused effort, can successfully face the challenges of the global market.

Now-a-days, it plays a dominant role in the economy of Bangladesh. It contributes 4.7% to GDP and about 8% to total export earnings. About 1.2 million people directly and 10 million people indirectly are involved in this sectors for their livelihood. At present, in total world shrimp production, 4.2 1% is produced in Bangladesh and thus the shrimp has become ‘ A GOLDEN FISHERY RESOURCES’ in Bangladesh.

Table-:3

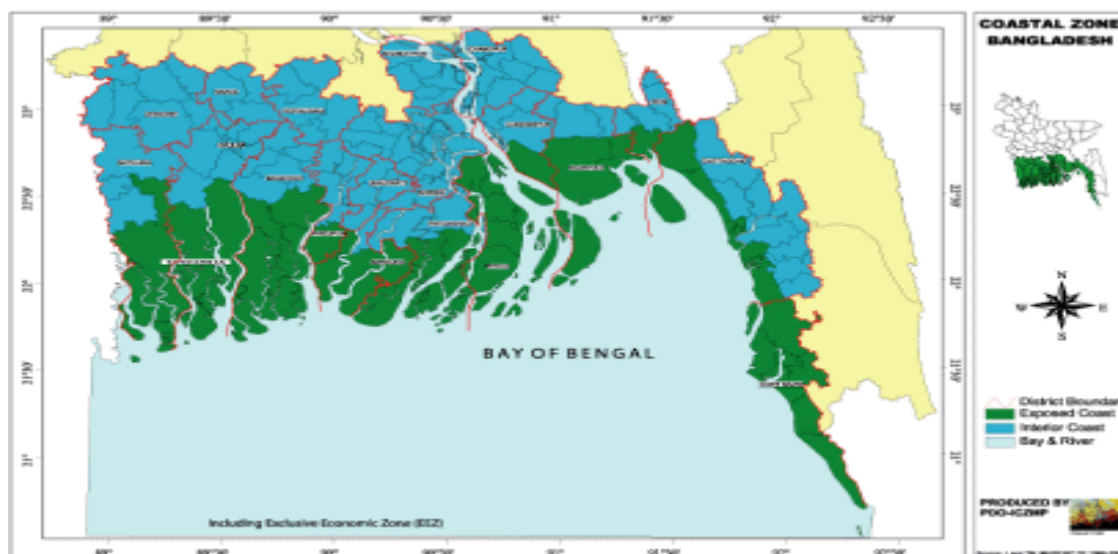


Table-3- The Map of Bangladesh Showing the Coastal Region or the Shrimp Cultivation Areas in Bangladesh:

Source: Secondary Data Analysis.

Description:

Series Name	Bangladesh 1:10,000 Scale Maps of Coastal Areas
Inventory	This series contains 1,600 total products.
Type	Topographic Maps
Series	Bangladesh 1:10,000 Maps of Coastal Area / Produced by Bangladesh Inland
Description	Water Transport Authority in co-operation with FINNIDA, Finland.

Scale	/ 1:10,000
Resolution	
Publisher	Bangladesh Inland Water Transit Authority .

4.1.2. Production Status of Shrimp & Economic Development in Bangladesh:

Two main varieties of shrimps are produced in Bangladesh, they are:

- i) FRESH – WATER SHRIMP
- ii) SEA – WATER SHRIMP

Sea water shrimp variety generally called ‘Black Tiger shrimp’ is dominant in production. Mainly the BANGLADESHI SHRIMP is widely admired because of its freshness and natural character. It is also free from any chemical and environmental hazard.

And that ‘s way there had been an increase in the volume of export of shrimp from Bangladesh to various markets of the world.

In the year 1984 -2010, 64,000 hectares of land was subjected to shrimp culture, but now it has increased to 1,40,000 hectares. Besides, at present, there are about 41 Shrimp Hatcheries engaged in the production of shrimps. Cox’s Bazaar and Khulna have turned out to be the main hub of these hatcheries.

4.2. Shrimp Export from Bangladesh to Rest of the World: Present Performance & Future Prospect:

4.2.1. Characteristics of World Shrimp Market:

In order to realize the characteristics of world shrimp market, we shall have to discuss the frozen shrimp Market trend of **USA, Japan and EU.**

4.2.1.i. USA-Frozen Shrimp Market Trend :

The economic boom situation in the USA combined with the high value of the US dollar created a very good environment for shrimp consumption and demand in this country. Supplies were unable to satisfy demand and prices were high throughout the year and well into 2010.

1. The Statement showing Shrimp imports from Bangladesh by USA in Feb’2010 & Feb’1990 in 1000 MT:

Table -4:

Shrimp Imports from Bangladesh by USA	Yr.2010	Yr.1990
Thailand	62460	4745
Ecuador	60270	3975
India	16580	1755
Mexico	18320	1314
China	3600	471
Indonesia	6380	1416
** Bangladesh	4730	495
Peru	5260	90
Other	34460	3937
Total	214060 MT	18198 MT

Table-4: The Statement showing Shrimp imports from Bangladesh by USA.

Source: INFOFISH Trade News and from the analysis of secondary data.

India and Bangladesh exported more shrimp to the US market, probably as these countries tried to open up different markets after the EU ban. Shrimp imports in Feb. 1998 were 17% more than the volume in Feb. 1990. Increase were noted for Thailand (30%). Ecuador (5 1%) and Peru (more than 450%). In contrast, Indonesian supplies fell by more than 50% as a result of the economic woes and drought in the country.

4.2.1.ii. Japan –Frozen Shrimp Market Trend:

Prices in Japan as all other markets are stay high at the moment, in 1990-2010. Headless black tiger (16-20) reached as 20/kg. The highest level in recent history. Japanese traders shift to Bangladeshi products, which are still selling us 2/kg less than Thai or Indian product. At these high piece levels and in view of the economic crisis, Japanese buying interest will stay limited in the coming month, even through spring, generally a good sales period. Traders will press for lower prices, but as the US Market continues strong and attracts supplies, there is hardly any room for price reductions, especially in view of limited aquaculture output.

1. In the following table showing shrimp imports (all types) from Bangladesh by Japan during March’1990& March’2010 in 1000MT:

Table-5:

Sources Import	March Yr.2010	March Yr.1990
India	36260	4296
Indonesia	38000	5317
Vietnam	19010	1660
Thailand	15470	1249
China	5110	456
** Bangladesh	2100	283
Malaysia	2590	312
Srilanka	3350	82
Russia	4070	19
Other	42120	4028
Total	165490MT	17702MT

Table-5: The statement showing Shrimp imports from Bangladesh into Japan.

Source: INFOFISH Trade News and from the analysis of secondary data.

Actually, JAPANESEs' shopping habits, eating out, health consciousness, busy life styles etc are quite different from AMERICANs.

Consumption Pattern for shrimp in Japan:

Institutional Users	:	75%
Sushi restaurant	:	25%
Japanese & Chinese Restaurant	:	30%
Western restaurants	:	15%
School lunches	:	0.5%
Household users	:	25%
Total	:	100%

.....

4.2.1.iii. EU-Frozen Shrimp Market Trend:

In 2010, Bangladesh sea food was allowed again into the EU thus ending a ban which was in place since August 1990. However, some plants were authorized, and all of them had to sin that they will not export any products from other

plants. Fish preservers Ltd. is one of these plants. The Impact of the EU ban was both negative and positive for the Bangladeshi industry.

Now there are 30 countries allowed exporting seafood to the EU and from July 2010 imports will be possible only from these 30 countries and from those which might join the group before this date. The situation will become dramatic for many EU importers after this date as many main exporting countries are still missing from the list. Some major shrimp exporting countries will be visited soon by the EU to decide whether they can continue to export.

4.2.2. World Market Demand for ‘Bangladeshi-Shrimp’:

In the world shrimp market Bangladeshi shrimp has a great demand for its excellent quality. From the previous discussion, we came to know that in February-March-2010, Bangladesh has exported 4730 thousand MT frozen shrimps and February-March-1990, 495 thousand MT frozen shrimps to USA market. Besides in March 2010 it has also exported 2100 thousand MT frozen shrimps and March 1990, 283 thousand MT frozen shrimps to the Japanese market.

Now-a-days the principal buyers of Bangladeshi Shrimps are USA, EU Countries, Japan, China, Singapore, Canada, Thailand, Hong-Kong, Australia and OIC Countries. Among them the main buyer of Bangladeshi shrimp is the EU Countries.

4.2.2.i. The following Table showing percentage of world market demand (1990-2010) of Bangladeshi Shrimp:

Table-6:

Name of the Market	Percentage of Total Demand
USA	2.44%
Japan	1.49%
EU	3.01%
Other Countries	4.0%

Table-6: The statement showing the percentage of world market demand (1990-2010) for Bangladeshi Shrimp.

Source: INFOFISH Trade News and from the analysis of secondary data.

The above Table-6 shows that, In USA Market, the market demand for Bangladeshi Shrimp is 2.44%, In Japanese Market, the Market demand for Bangladeshi shrimp is 1.49%, In EU Market, it is 3.01% and in other Countries, i.e.4.0%.

4.2.3. The Export position of Bangladesh in the ‘World-Shrimp-Market’ :

Bangladesh has earned an honorable exporting position in the world shrimp market.

In the World Shrimp Market, the principal shrimp exporting countries are China, Peru, Ecuador, Chile, Japan, United States, India, Indonesia, Russia, Thailand, South Korea, Philippines, North Korea, Malaysia, Vietnam, Bangladesh, Myanmar, Pakistan, New Zealand, Sri Lanka, Hong Kong, Mexico etc.

In this Context,

4.2.3.i. The following table showing country wise "Production and Export Position" of Bangladesh (1990 to 2010) in the world shrimp market (on the basis of analyzing the secondary data) :

Table-7:

Production & Export Position	Name of One Country	Production (in MT)
1	China	20,719,000
2	Peru	11,587,000
3	Chile	7,841,000
4	Japan	7,363,000
5	United States	5,941,000
6	India	4,540,000
7	Indonesia	3,954,000
8	Russia	3,781,000
9	Thailand	3,432,000
10	South Korea	2,700,000
12	Philippines	2,276,000
14	North Korea	1,800,000
18	Malaysia	1,173,000
19	Vietnam	1,150,000
20	** Bangladesh	1,091,000
25	Myanmar	824,000
29	Pakistan	552,000
33	New Newland	493,000
50	Srilanka	224,000
52	Honk Kong	220,000

Table-7: The table showing country-wise “production & export position” of Bangladesh in the world shrimp market.

Source: Bangladesh Frozen Foods Exports Association, INFOFISH Trade News and from the analysis of secondary data.

From this Table, We can see that in ranking export-Position, Bangladesh has earned 20th position in the World shrimp market.

Now a days (in 2008-2012), Bangladesh produces 4.21% to 6.00% shrimp of the Total world shrimp production.

4.2.3.ii. The following table showing Country wise-Percentage of Shrimp Production of total World Shrimp Production (within the yr.1990 to 2010).

Table-8:

Name of the Country	% of total production
Thailand	30.90%
Indonesia	11.24
China	9.83
India	7.02
Vietnam	4.21
** Bangladesh	0.28
Australia	14.04
Ecuador	1.69
Mexico	1.54
Colombia	1.40
Honduras	0.15
United States	9.27
Other	100

Table-8: The table showing country-wise percentage of shrimp production of total world shrimp production (from the yr,1990 to 2010).

Source: World shrimp farming report- from BFFEA, INFOFISH Trade News and from the analysis of secondary data.

4.2.3.iii. The following Statement showing the exception and the achievement in the FISHRIES SECTOR of Bangladesh , from the year : 1990-2010-

Table-9:

Year	Expectation (in Core Tk.)	Achievement (in Core Tk.)
1990-1994	1944	1490.73
1994-1998	2631	1927.05
1998-2002	2100	2516.73
2002-2006	2820	3192.00
2006-2010	4560	3318.00

Table-9: The statement showing the achievements (in core tk.) from the yr. 1990-2010.

Source: Hossain, Belayet (2nd edition, Agricultural Marketing.), INFOFISH Trade News and from the analysis of secondary data.

In here, I have also presented another statement which will help to understand this topic.

4.2.3.iv. The following statement showing Present Performance of Bangladesh in Exporting FROZEN SHRIMP (1990- 2010):

Table-10:

Year	Quantity (Million LB)	Value (Core Tk.)
1990-1994	155.79	1490.73
1994-1998	166.83	1927.05
1998-2002	170.25	2516.73
2002-2006	123.21	3192.00
2006-2010	132.84	3318.00

Table-10: The Statement showing present performance of Bangladesh in exporting frozen shrimp (from the yr. 1990-2010).

Source: Bangladesh Frozen Foods Exporters Association, INFOFISH Trade News and from the analysis of secondary data.

4.2.4. Development of Shrimp Export in Bangladesh and its Contribution to the Overall Economic Development in Bangladesh:

In Bangladesh, FROZEN SHRIMP and FISH have occupied 4th position in the list of total exportable commodities. In the year 1972-73 export earning was Tk. 75 million which has increased to Tk 17220 million in the year 1999-2000 and the export earning only from shrimp is Tk. 16,150 million in the year 1999-2000. In Bangladesh the major exportable shrimps are black frozen shrimp, IQF Shrimp, Semi-Cooked etc.

4.2.4.i. Export Earnings from shrimp, fish and fish products and other aquatic organisms during the yr.2001-2002 are expected to be Tk. 38,045.00 million as against estimated earnings of Tk. 16,000.00 million in the yr.1996- 97:

Table -11:

(Qty in 000 m tons, Value in million Taka)

Items	1996/97 (Benchmark)		2001/2002 (Projection)	
	Qty	Value	Qty	Value
Shrimp	28.00	13,150.00	70.00	32,900.00
Fish & fish products	9.80	2,250.00	20.00	4,600.00
Others	5.50	600.00	5.00	545.00
Total:	43.30	16,000.00	95.00	38,045.00

Table -11: Export Projection of Fish and Fish Products in 'Fifth –Five Yr.Plan Period (1997-2002)'.

Source: Bangladesh Frozen Foods Exporters Association, INFOFISH Trade News and from the analysis of secondary data.

4.3. Out of 110 companies, the 1st –fifteen (15) Shrimp and Other Fish Processing Plants (Organizations) in Bangladesh which have already adopted the international standard e.g.EU-HACCP& US-FDA system in processing their products:

Before independence of Bangladesh (i.e. before the yr. 1971) a very small quantity of FISH & FISHERIES PRODUCTS had been exported from Bangladesh. In the years 1972-73 there were only 15 plants were under the international standards but in the year 1995-96 the member of plants has increased to 122 .

In Bangladesh, the remarkable FROZEN FOODS (SHRIMP , SEA FOODS & OTHER FISHRIES PRODUCTS) export oriented plants are :

1. Fish Preservers Ltd, 292, Nasirabad Industrial Area, Baizid Bastami Road,Chittagong, (US-FDA- Code – Be- 06).
2. Meenhar Sea Food Ltd. 33 A/2 FIDC Road, Kalurghat,Chittagong.(US. Code- Bc-o2).
3. Apex Foods Ltd, BSCIC road, Sagarika Road, Chittagong. (US Code- Bc- 13)
4. Lackpur Fish Processing Co. Ltd, Khulna. (Code Bk.06)
5. Bangladesh Sea Food Industries Ltd, Dhaka (Code-Bk-06)
6. Snocking Frozen Foods Private Ltd. 2-D, Dams Salam Road, Section- 01, Mirpur -01, Dhaka - 1216.
7. Asian Sea Foods Ltd. Dhaka.
8. Bengal Fisheries Ltd. Chittagong. (US Code - Bc-39)
9. Coastal Sea foods Ltd. B. 11-12, BSCIC road. Estate, Saganka Road, Chittagong -4219.(Code -Bc-29)
10. Neptune Sea food Ltd. 102, Muradpur, Murncal Housing Estate, Chittagong.
11. Beximco Foods Ltd. , Kader Chamber, 97, Agra bad CIA Chittagong.
12. Mahi Fish processing Ltd, House no 13, Block- 2, Lone-04, Halishahar Housing Estate, Chittagong.
13. Sea Food Corporation Ltd. , Bagadi Road, Chittagong -3600.
14. Megna Sea foods Ltd., Chittagong (Code -Bc-19).

Source: Bangladesh Frozen Food Exporters Association.

V. POLICY IMPLICATIONS

5.1. Bangladesh Government 'YEAR.WISE PLAN' at Fisheries Sector :

The major objectives of FISHRIES sub-sector development during the Third (1985-1990),Fourth (1990-1995) & Fifth (1997-2002) five yr. plan and 'Export Policies of Bangladesh Government' (i.e. The export policy of 2003-2006 and 2007-2011) have been formulated with the objective of improving institutional capacity, diversification of products, encouraging value addition, promoting new exporters, developing skilled manpower, proper utilization of information technology and making all concerned aware of the international trading system. Many new incentives have been made available to exporters.

Besides, subsidies are playing an important role in promoting exports. Textile products, agricultural products, fruits and vegetables, frozen food, jute products, non-traditional items. handicrafts, etc are enjoying different rates of subsidy. Other countries also subsidies their exports.

5.2. Bangladesh Govt. Special Facilities for Frozen Foods Development:

For the development of export of shrimp / Fish from the country, Government had provided certain facilities and incentives to the exporters of this sector, during the last couple of years, which are mentioned below :

1. Import duty free new reconditioned refrigerated van, for carrying fish by the processing plants.
2. In the export policy (1997-2002), different types of measures have been outlined as regard augmentation of export of shrimp, for example- Duty free import of capital machinery by the fish processing plants.
3. As per decision of the ministry of commerce 100 acres of lands suitable for shrimp culture shall be leased.
4. All kinds of assistance such as supply of shrimp larvae, development of infrastructure facilities shall be extended for introduction of improved traditional and semi-intensive culture of shrimps.
5. Steps shall be taken for development of hatchery at private levels to ensure supply of larvae.
6. Steps shall be taken for provision of long-term loan from the bank on easy term.
- 7 Steps should be taken on scientific method of shrimp culture. At that time Shrimp Development Board establishes, shrimp hatchery is identify as an industry and tax reduce on shrimp culture equipment import.
8. Provision of extending banking loan special condition for development in there frozen foods processing plant by HACCP system.
9. Shrimp of count 71/90 and size below for seawater and 61/70 and size below for fresh water, excluding two varieties namely Harina and Chaka.
10. The government has promulgated and enforced new rules and regulations in consistent will international standard.
11. Government has liberalized foreign investment and the socio-economic and political atmosphere is congenial for investment.
12. VIP facility to prime Minister export trophy awards: The heads of the business organization receiving the highest national award in export sector (in any field) through conferment of prime Minister's export trophy will, in recognition of their brilliant performance, be provided VIP status relation to airport formalities only during their travel , provided the concerned persons fulfill the condition of CIP (Exports).

5.2.1. Some Short Term Strategies and Policies which should be taken by Bangladesh Govt.:

- i) Financing facilities for export oriented industries are to be made available on a priority basis. Lack of adequate finance is one of the major constraints for diversification of export. Small and medium exporters are affected more by this constraint. Therefore, providing financial support is a top priority.
- ii) Private commercial banks may be persuaded to give loans to exporters at rates of interest fixed by the govt.
- iii) Existing subsidy for export should be continued. New items in the priority list may be considered for granting subsidy.
- iv) As indicated in the current export policy, an export development fund may be created for providing venture capital, fees for foreign experts, marketing missions abroad and other export related activity.
- v) Delivery time in shipment has to be cut down particularly for RMG. Govt. may reconsider their decision for setting up of a central bonded warehouse. World Bank has recommended the establishment of a central bonded warehouse for textiles.
- vi) Gas and power supply need to be ensured for export oriented industries.
- vii) Trade information centre of EPB must be upgraded immediately.

5.2.2. Medium and Long Term Strategies and Policies which should be taken by Bangladesh Govt.:

- i) Private sector should take full advantage of the incentives offered by the govt. These incentives should be utilized for the benefit of the exporters. Govt. may ensure full implementation of the incentive structure.
- ii) Both the public and private sector should work as partners in promoting export diversification. Implementation of govt. policies for export diversification must be given priority.
- iii) Although there are numerous constraints to export diversification and cannot be resolved all at a time, efforts should be made to remove them in a time bound manner.
- v) Vigorous efforts should be made for expansion and diversification of manpower export. More and better training facilities are to be organized for upgrading the skill of our workers.
- vi) We have to convince the US govt. to grant duty and quota free access to our products as good numbers of other countries have done this. We must have some space in the aftermath of quota phase-out.
- vii) Potential investors from outside should be encouraged to invest in export oriented industries.

- viii) There is serious lack of research and development in the industrial sector. Industrial enterprises should develop their own capacity for research and development with assistance from the Govt. Govt has to provide adequate support for this purpose.
- ix) Major trade bodies like FBCCI, MCCI and DCCI may undertake research and development and survey work particularly for the benefit of the small exporters.
- x) Investigation has to be conducted for possible anti-dumping action. Tariff Commission as the authority for such action should keep all concerned informed about their action program.
- xi) Private sector may appoint their own representatives in key locations outside Bangladesh for facilitating export diversification.
- xii) In order to deal with WTO matters more effectively, DCCI may set up a fully fledged WTO cell.
- xiii) Incentives provided to the exporters have to be comparable to neighboring countries.
 - xiv) Seafood processors must determine if the extra costs of HACCP can be borne by the plants and allow the processors to remain competitive on a price basis. The positive as well as negative benefits of HACCP must be determined. Seafood plants in developing countries must also determine if HACCP should be extended to the production level, and work with the relevant inspection authorities to expand HACCP if warranted. Industry and government must determine the effects of HACCP on the structure of the production and processing industry in developing countries and determine in major shifts will occur in the size and number of processing plants due to safety and quality requirements.

VI. MAJOR PROBLEMS, SUGGESTIONS AND RECOMMENDATIONS

6.1. Problems relating to the company Management:

- a. Co-ordination between the marketing information system and the accounting information system. in the FISH – EXPORTING COMPANIES in Bangladesh for decision making and implementation are not present.
- b. All Shrimp Export Companies of Bangladesh have to collect 50% raw materials from foreign countries.

6.2. Suggestions and Recommendations for these Problems:

- a. Co-ordination between marketing information system and accounting information system will have to be established.
- b. Bangladeshi shrimp farmers can supply these raw materials and for this reason, more loans and facilities should be provided by the govt. of Bangladesh..

6.3. Problems relating to the Shrimp-Exporters:

Shrimp farming is now being viewed as one of the most profitable business with quick turnover and assured return on investment. But in spite of this there are some problems which have to be faced by the shrimp exporters, local agents, foreign buyers etc.

- a. Shrimp- Farmers of Bangladesh are very poor and unskilled. So, they cannot produce sufficient amount of raw shrimps according to shrimp exporters' demand.
- b. As a result shrimp-exporters of our country cannot supply sufficient amount of shrimps according to their foreign consumers' demand.
- c. The exporters also have to face problems in processing and marketing shrimps for lacking of their proper marketing knowledge.
- d. Our freight charge is so high that the exporters cannot reduce it, as a result, they have to face problems in freight charge before their shipment.
- e. In Bangladesh all of our fish processing plants are not under the HACCP Implementation.
- f. In one developed consumer market there is now tremendous demand for smeller value added packs 'ready to cook or 'ready to eat'. But our economy does not permit to go for this high quality value added products which need more capital investment.

6.4. Suggestions and Recommendations to overcome of these Problems:

To solve these problems and to increase our efficiency in this sector (i.e. shrimp exporting) in foreign markets, the following suggestions and recommendations should be adapted:

- a. It is essential to make the shrimp- farmers as skilled for producing sufficient amount of shrimps.
- b. To reduce freight charge specially for the shrimp- exporters.
- c. To ensure '24 hours electricity facility' in the fish processing plants.
- d. The exporters need to increase the cold storage facilities in their fish processing plant.
- e. It is more essential to appoint marketing managers, marketing executives in the fish processing plants to ensure the proper marketing management of this product,
- f. It is essential to develop our hatcheries and to organize frozen food and fish fair to attract the foreign buyers at regular intervals.
- g. The Frozen food Industry needs to carry on with high quality production process that enables the requisite standard to be consistently maintained, Because, in the past time same unscrupulous elements caused not only economic loss but also damaged the country's image.
- h. A special arrangement was also requested for uninterrupted power supply to the shrimp culture areas at Khulna and Chittagong.
- i. It is also more essential to permit duty from import of capital goods and raw materials are exempted from excise duties and VAT in the export- oriented fishing industry.
- j. Foreign Countries are varying fastidious about good because of health reasons. So, the Export promotion Bureau (EPB) will take necessary steps to prevent such occurrences in the future by penalizing those who default in any kind of quality management, not meeting the established international standards.
- k. At last, we can say that- to increase our efficiency in this sector it is most essential to prevent political crisis because now-a-days, our business sector is greatly hampered by this political crisis. In this context, all political parties should take positive steps for this purpose.

VII. CONCLUSION

From the above discussion of the study, it is clear that shrimp is the 'White Gold' in Bangladesh and it has a great potentiality in the export earning of Bangladesh than any other country of South-Asia. Though it will take little more time to implement HACCP and US-FDA system fully in the FISHERIES & SEA FOOD SECTOR of Bangladesh, the Bangladeshi Exporters can easily earn 2 billion to 3 billion US dollar between the years 2010 to 2020. Observing this reality, now the government is very much aware of improving and assuring the quality of this product. But it is not sufficient for its development. And so, all the shrimp- producers, shrimp exporters, businessmen, middlemen, local agencies, international agencies from Bangladesh and political parties should try to take necessary steps to overcome the existing problems in this sector and to earn the leading position in this sector in the 'World Shrimp Market'.

REFERENCES

Books:

1. Malhotra, Noresh K. (1993), Marketing Research: An Applied Orientation Prentice Hall, Englewood cliffs, New Jersey, U.S.A., p-10.
2. Rathor.B.S. & Rathor, J.S.(1996), Export Marketing HIMALAYA PUBLISHING HOUSE, Bombay, India.,p-6-30.
3. Hossain, Belayet (1990),Agricultural Marketing, Bangladesh Book Corporation Ltd. 2nd Edition, 73- 74 Potuatoli, Dhaka,p-249.
4. Mannan, M.A.(1990), Biponon Joge Joge, Royal Library, 31/32 Bangla Bazar, Dhaka,p-50.
5. Rack owes Robin, King Dennis & Kittson Graham (2010), The International Market for Shrimp.
6. The Book on - Third (1985-1990),Fourth (1990-1995) & Fifth (1997-2002) Five Year Plan of Bangladesh.

Papers & Journals:

1. James C. Cato (JCato@ifas.ufl.edu) is a professor of food and resource economics and director of the Florida Sea Grant College Program at the University of Florida, Gainesville, USA, and S. Subasinge is director at INFOFISH, Kuala Lumpur, Article on: Food safety in food security and food trade, A Case Study: The Shrimp Export Industry in Bangladesh, Published By: Center for International Trade, Economics and Environment, focus 10 -brief 9 of 17 - September' 2003.
2. C.U. Journal of Management Studies (2008)-A Journal of the Department of Management Studies, University of Chittagong, Vol: 04, Dec.2008, Published in: Feb-March'2009.
3. Salahuddin Embed, EX-VP, BFFEA & M. D FISH PERSERVERS LTD., Address to the members of Tokyo Chamber of Commerce & Industry during the visit with Honorable Prime Minister -(on July 1997).
4. Chittagong Chamber of Commerce & Industry - (20-23 July 1998) - FAO/DANIDA/INFO FISH National workshop on Introduction to the Verification & Auditing of the HACCP System.
5. Pester Session at the Economics of HACCP' Conference (June15-16,1998) Washington,DC, USA.
6. Bangladesh Economic Newsletter-(2008,2009,2010,2011,2012).
7. Fisheries' Newsletter (Jan-April'1998),Director General, Bangladesh Fisheries Research Institute,Mymensingh-2201, Bangladesh.
8. A brochure published by the Ministry of Fisheries,web:www.sjavarutvegsraduneyti.is/media/pdf-skjal/close2001.
9. European Union: EC Newsletter (August'1998), Vol.: 08 (No. 2), Published by: the Delegation of the European Commission, Gulshan, Dhaka, Bangladesh.
10. Bangladesh Export Statistics, Published by: (EPB, 2008, 2009, 2010,2011,2012).
11. The Journal of Dhaka International Sea Food Fair '99' (1999) Organized by: Export Promotion Bureau (EPB).
12. Special Bulletin, (Nov: 1997) Organized by: Bangladesh Frozen Foods Exporters Association (BFFEA).
13. GLOBE FISH (Fish Price Report) on May, 1990 to 2012.
14. INFO FISH Trade News.
15. Bangladesh Economic Review -2005: Economic Adviser, Wing Finance Division, Ministry of Finance, Govt. of Peoples Republic of Bangladesh, (June-2005).
16. MacDougall, G.D.A (1960), The Benefits and Costs of Private Investment from Abroad: A Theoretical Approach, Economic Record, Volume: 36.
17. Dunning, J.H. (1980)-Toward an Electric Theory of International Production: Some Empirical Tests, Journal of International Business Studies, Vol.II.
18. Bangladesh Economic Development at the Open Directory Project by visiting web.
19. Statistical year book of Bangladesh Bureau of Statistics, (1990 to 2012).