

Report on
How has Covid-19 affected the fish feed industry?
An analysis on Spectra Hexa Feeds Ltd.

By

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An internship report submitted to the BRAC Business School in partial fulfillment of the requirements for the degree of Masters of Business Administration

BRAC Business School
Brac University
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Declaration

It is hereby declared that

1. The internship report submitted is my/our own original work while completing degree at Brac University.
2. The report does not contain material previously published or written by a third party, except where this is appropriately cited through full and accurate referencing.
3. The report does not contain material which has been accepted, or submitted, for any other degree or diploma at a university or other institution.
4. I/We have acknowledged all main sources of help.

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Letter of Transmittal

Dr. Akbar Ali Khan

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Subject: Submission of Internship Report on ‘How has Covid-19 affected the fish feed industry? An analysis on Spectra Hexa Feeds Ltd’.

Dear Sir,

With due respect this is to inform you that I have completed my report on the assigned topic: How has Covid-19 affected the fish feed industry? An analysis on Spectra Hexa Feeds Ltd during my internship in Spectra Hexa Feeds Ltd and as per your given guidelines. I have given my absolute best to prepare the report with the necessary data at hand to make this report as informative and comprehensive as possible.

I hope this report will fulfill your expectations and will help to describe the scenario set by the topic.

Sincerely yours,

Fariba Ahsan

18264015

BRAC Business School

BRAC University

Date: January 10, 2021

Non-Disclosure Agreement

This agreement is made and entered into by and between Spectra Hexa Feeds Ltd and the undersigned student at BRAC University Fariba Ahsan

Acknowledgement

I would first of all like to thank the Almighty for giving me the strength and determination to complete the report. In this troubled times he has given me courage to give my best.

Next, I would like to wholeheartedly thank my supervisor Dr. Akbar Ali Khan for supervising me and giving me the opportunity to complete my internship under his guidance.

My heartfelt gratitude also goes to my supervisor at Spectra hexa Feeds Ltd. Mr. Nurul Alam and Mr. Mir Ashfaq Hossain, for supervising me throughout the internship process and helping me with the completion of my report.

Lastly I would like to thank my family members without whose support and encouragement I would not be where I am today.

Executive Summary

The aquaculture industry of Bangladesh is an important sector for the country given the significance the agriculture holds. Providing the industry's needs are the fish feed industry comprising of many small and large producers of fish feed. These companies are responsible for producing the fish feed and distributing it to the concerned parties who require them as food for their final product. After the emergence of the pandemic last year many businesses have been adversely affected including the fish feed industry. In order to understand the scenario, the experience of Spectra Hexa Feeds Ltd. a leading fish feed manufacturer has been taken to analyse the effects of the pandemic. This report's main focus is to understand how the fish feed companies operate within the industry and how its operations have been affected by the pandemic. The report also gives a brief scenario of Bangladesh's aquaculture industry and the after-effects of the pandemic. Taking the inspiration from Spectra Hexa Feed, I have analyzed the organization based on its different departments and the market as a whole. The main topic is then explored crediting various websites and articles that have researched on the given topic. Therefore the finished report will provide the reader with an overall knowledge of the industry and how it tackled the difficult times of the pandemic.

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Chapter 1

Overview of internship

1.0 Student details

Name	ID	Program	Major
Fariba Ahsan	18264015	Master of Business Administration	Human Resource Management

Table 1: Student Details

1.2 Internship information

The internship is done in Spectra Hexa Feeds Ltd. situated in Road 106, Gulshan, Dhaka 1212. The internship is unpaid, and is for three months starting from 19th November 2020 to 18th February 2021. The requirement of the internship is to work from home for the admin department during the given period.

1.3 Supervisor's information

The internship is ongoing Mr. Nurul Alam's supervision, Senior G.M (Admin and Purchase).

1.4 Job Description

The responsibilities of the job included various administrative duties mainly related to the Human Resources department.

Duties:

- Assisting the administration with paperwork
- Maintaining online files and documents
- Typing and editing documents
- Assisting Human Resources with basic administrative work
- Taking meeting notes

Internship outcomes

1.5 Student's contribution

Contributions were made on the duties mentioned in section 1.4. The job is to assist the administrative department with basic tasks and did not require being involved in any critical assignment.

1.6 Benefits to the student

The internship is unpaid and on a work from home basis. This allowed me to work comfortably from home, not having to be present in the head office during the pandemic. The internship also provided me with a new learning experience and helped me to write my report for my internship course.

Chapter 2

Organizational overview: The fish feed industry

2.1 Introduction

The term “Mache bhate bangali” strongly connects every Bengali to their staple diet, fish and rice. No wonder the fishery industry is the fifth largest contributor globally, contributing to 22.6 percent to the agricultural GDP and 3.69 percent to Bangladesh’s total GDP. Even though poultry industry is a booming business, about 60 percent of the total population prefers fish as their main protein source. The fisheries sector is also a big employer of rural people of which many are women. Many of them are farmers, or small scale fish and hatchling producers who sell their fish in the cities which is their main income.

Despite this, the fish feed industry faces its own challenges. The country’s incapability to produce quality raw materials means that it has to rely on foreign countries to supply most of its raw materials, which can prove expensive. The preference of some farmers making and using their own fish feed also poses competition for the companies. Bangladesh also does not export any fish feed and only produces for local consumption, yet several foreign companies are operating in the market.

Two main regulating bodies govern the fish feed sector are; Directorate of Fisheries and the Ministry of Fishery and Livestock. Among their many objectives, they are responsible for facilitating and assisting the producers in improving their quality and providing management guidance. The companies producing fish feed in the country are responsible for fulfilling the farmers and hatcheries who farm fish for local and international consumption.

The report will represent the fish feed industry of Bangladesh from Spectra Hexa Feeds Ltd. and will look into the effects the pandemic had on the industry.

2.2 Objective

The objectives are as follows:

- To understand the industry from the perspective of Spectra Hexa Feeds Ltd.
- To analyse the effects of the pandemic on the organization and its operations
- To connect the internship experience with the report

2.3 Scope

Working for the organization created a valuable experience which I could use to construct my report and learn more about the industry and how the organization operates. The factory visit was also a rewarding experience as I could witness the production process and learn a great deal.

2.4 Limitations

The internship had to be done while at home, which meant no practical office experience per say. I felt the learning experience would have been better if the internship was on site but the pandemic did not allow it. For this reason it was difficult to create a professional relationship with colleagues and most work had to be done online which often became tiresome and monotonous.

2.5 Significance

The internship in the organization was mandatory for completing the graduation and for getting practical knowledge and experience of the job.

2.6 Company Background

Spectra Hexa Feeds Ltd is a joint venture company created with the combined investments of Spectra Group of Bangladesh, Hexa Group of Thailand and the machinery expert Mr. Chening Neh of Taiwan. The company is a private limited company. Created in 2005, the company is one of the most reputed in the fish feed industry. The production facility is situated in Ichail Shibaloy, Manikgonj and contributes to an annual production of 150,000 metric tonne of fish feed. The company produces two types of fish feed, floating and sinking. About 40 to 45 percent of raw materials are sourced from abroad while the rest are sourced locally. The primary consumers of Spectra Hexa feed are entrepreneurs and local farmers. After the final manufacture, dealers buy the products, later selling the products to other retailers who then sell to farmers. More than 300 dealers across the country are responsible for the sales of the final product. Spectra Hexa, however, provides the after-sales service. Even though the company is a joint venture, total production is carried out in home country while experts from Thailand and Taiwan visit regularly to monitor and provide assistance.

The company is monitored by a group of board of directors from all three countries and is primarily directed by CEO and Director Mr. Md. Ahsanuzzaman. The organization consists of 500 employees. Figure 1 shows the company structure.

Spectra Hexa Feeds is committed to provide better customer service using a quality system procedure. Its vision is to achieve this for the long term, incorporating the quality system procedure in daily operations involving top to lower management. Besides, its main philosophy is to prevent unethical business practices and to position itself in the international market based on goodwill. Given the following, Spectra's key objectives are to enhance profit, provide customer satisfaction, minimize losses and promote employee satisfaction. In the 15 years of its operations, its excellent reputation, quality assurance and success in the home market has helped establish the company as one of the top producers of fish feed in Bangladesh.

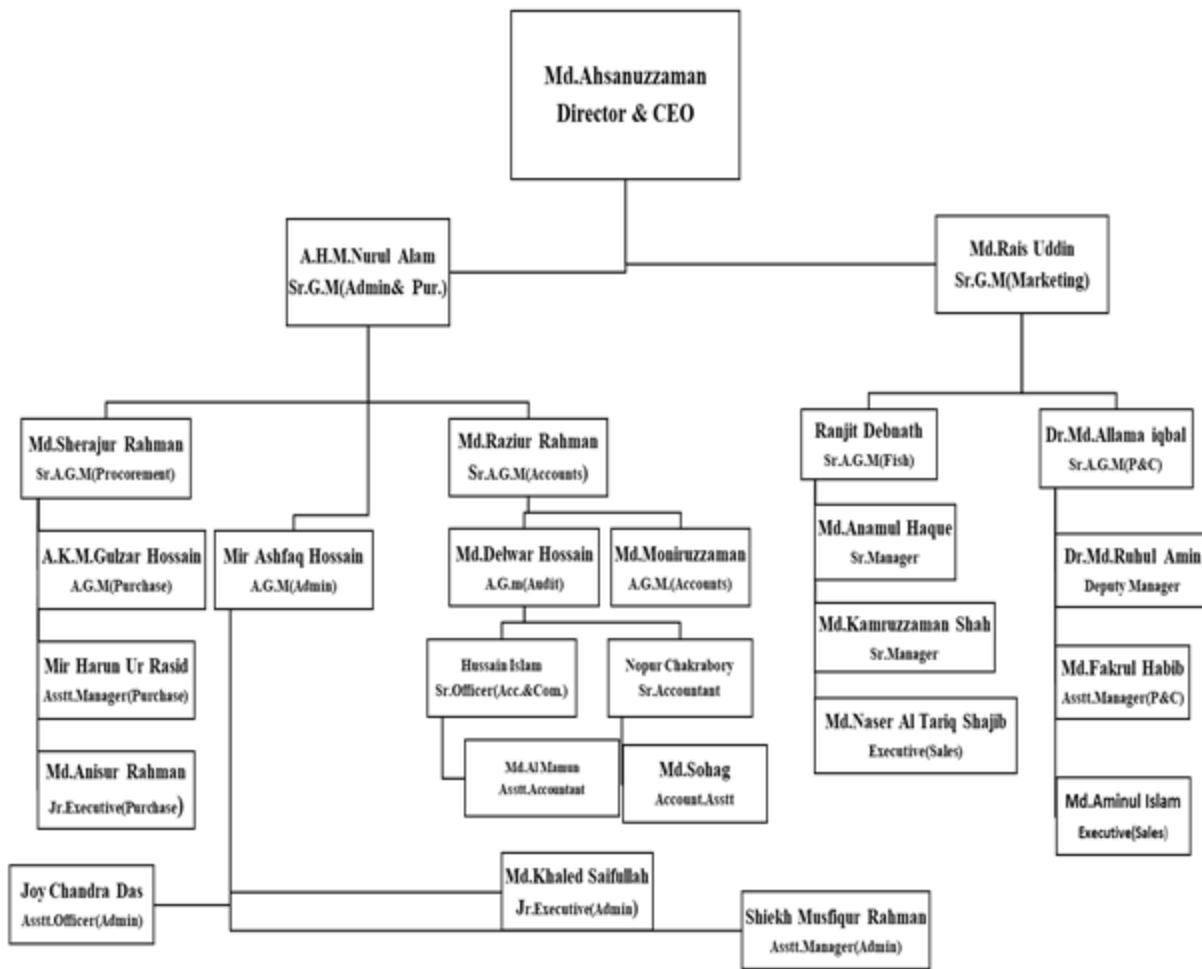


Figure 1: Company structure



Spectra Hexa Feed logo



Mega Feed factory

2.7 Management and governing body

The management of Spectra Hexa Feeds Ltd. is created with expert and professional individuals who have years of experience and are well known in their respective fields. The organization is governed by a nine person panel of board members.

1. Engr. Khan Md. Aftabuddin (Chairman)
2. Visit Chaithirasakul (Managing Director)
3. Engr. Md. Akramuzzaman
4. Engr. Khalid Hussain Khan
5. Mr. Arif Khan
6. Mrs. Somsri Tovichit
7. Mr. Pisan Chaithirasakul
8. Mr. Chang Negh
9. Ms. Ananya Chaithirasakul

The organization and its operations are headed by the following key persons:

1. Md. Ahsanuzzaman (Director & CEO)
2. Md. Rais Uddin (Sr. Exectuive General Manager)
3. Mr. Woravuth Laksakulchai (General Manager)
4. Mr. Krishna Prosad (Deputy General Manager Factory)
5. Md. Raziur Rahman (Deputy General Manager Accouns)
6. Ranajit Debnath (Sr. Asstt. General Manager Procurement)
7. Mir Ashfaq Hossain (Sr. Asstt. General Manager Admin)

2.8 Operations

Business operations

The diagram below (Figure 2) illustrated the business operation of Spectra Hexa Feeds Ltd. The business operations start with identifying the market and demand opportunities after which planning is done for raw material purchase. The purchase is made through OEM (Original Equipment Manufacturer), after the negotiation is made following which the equipment is purchased. Other raw material purchases are made from abroad and the local market. This step coincides with the purchase procedure on the left side of the flow chart. These raw materials purchases are then shipped from their source and then stored in their storage facility in the production factory. After all the necessary purchases are made, the goods, in this case the fish feed, is produced in the factory and then sold off to the dealers. In the meantime the revenue is collected from the sales. The last steps in this process are the after-sales customer service and the organization's post contact service.

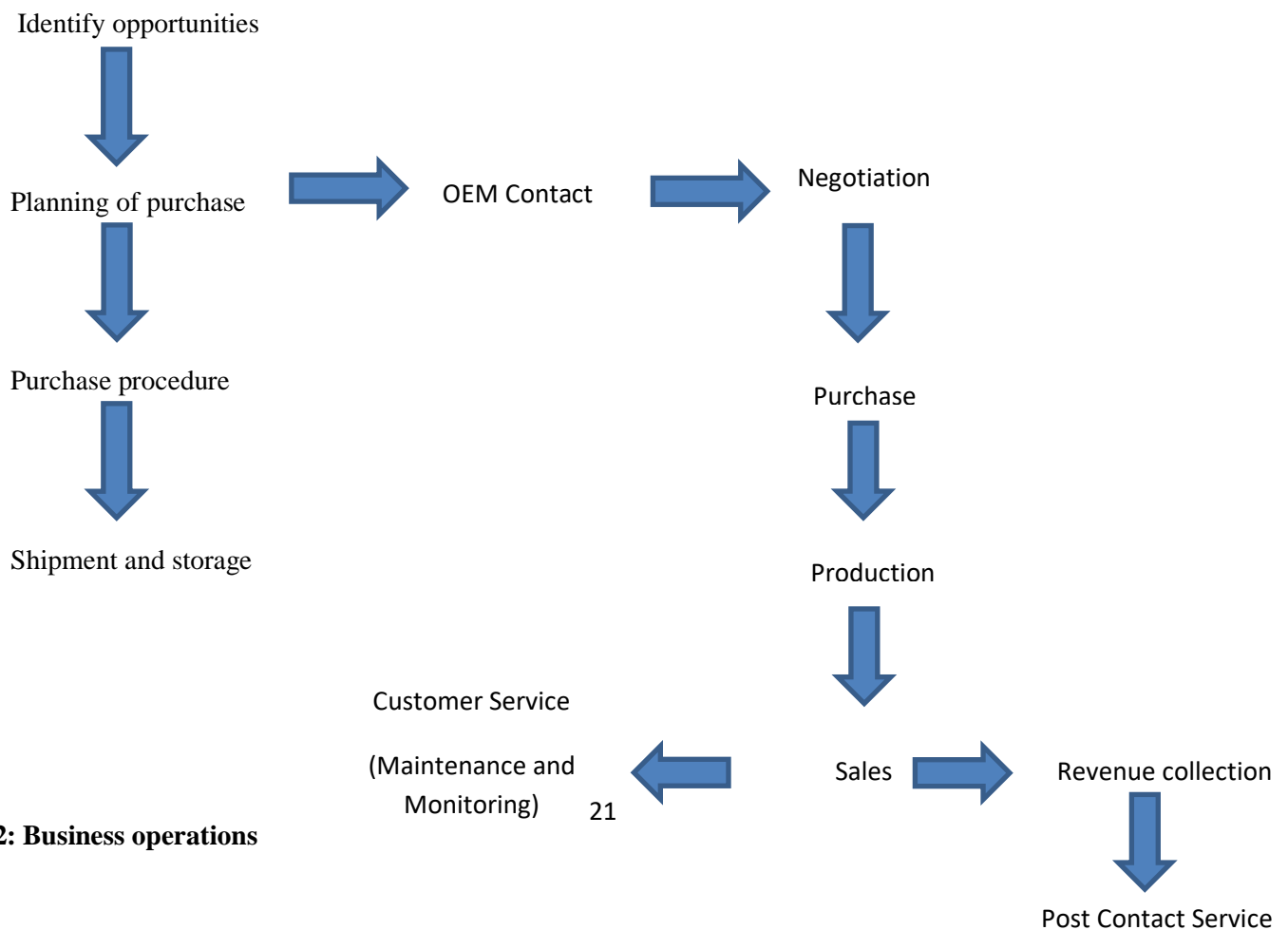


Figure 2: Business operations

Quality policy and quality management control

The organization has determined the scope of the quality management system by considering external and internal issues, product and service of the organization and understanding the needs and expectations of interested parties. The external and internal issues are analysed by PEST and SWOT analysis. These are as follows:

PEST

Political factors

- Allocation for infrastructure
- Skill enhancement in Automation sector
- Monetary policies
- Political direction on smart cities

Economic factors:

- Funding of smart cities
- Growth of banks in rural areas
- High GDP growth
- Increase in car park density

Social factors:

- Increased literacy
- Technological awareness
- Banking on banks
- Increased per capita income

Technological factors:

- Advancement in chip design
- Automation tools growth
- High technology at low cost
- Digital technology growth

SWOT

Strengths:

- Strong technology backup
- Young and motivated team
- Quick decision making
- Strong customer focus
- Nil borrowing

Weakness:

- Very small team
- Lack of experience
- Weak marketing
- High inventory
- Limited customer base

Opportunity:

- Low level of competition
- Lean organization
- High growth potential

Threat:

- High technology imports
- Technology leakage
- Attrition
- Skill development velocity
- Increased competition

All these factors are taken into consideration when operating the business to take advantage of the opportunities to grow profitably and to be aware of the threats.

The needs and requirements of five different parties are taken into consideration such as the external providers, customers, statutory and regulatory body, bankers and financiers and last but not the least employees of the organization. All the requirements of these interested parties are take care of by the organization for the potential effect on the organization's ability to consistently provide products and services which meet the customer's and applicable statutory and regulatory requirements.

Organizational roles, responsibilities and authorities

The roles, responsibilities and authorities are communicated to the all levels of the organization by top management. The observations made by top management when delegating the tasks are that, the quality management system is as per the international standards and all reporting related to the system is given to the top management. Because the quality management system is a significant part of the organizational process, its integrity is maintained adjusting to any changes. The top management also claims the processes to deliver the output as per requirement. Customer focus is also communicated throughout the organization as crucial.

The roles and responsibilities assigned include

- the formulation and communication of Quality Policy and Quality objectives
- strategy formulation for improvement of business and quality system
- making sure the performance of quality system is assessed
- approving the quality system manual
- approving the budget for the organization
- provision of resources per requirement
- overall responsibility for business development and financial issues
- strategic decisions needed for developments and technical setup
- providing the leadership to ensure effective system implementation

Management Review

Management review is done by the Managing Director and partner (dealers) once every six months to guarantee the requirements of ISO 90001:2015; quality policy and objectives are met as per requirements. The management review includes all necessary elements of the quality system. The partner on the other hand will review the opportunities needed for improvement and any changes that may be required in the Quality Management System as well as the Quality Policy and the Quality Objectives. The management review is held based on:

- reports on previous management review
- the information on the performance and effectiveness of the quality management system based on customer satisfaction, process performance, etc.
- confirming whether resources are sufficient
- ensuring the effectiveness of actions taken to address the risks and opportunities
- reviewing opportunities for improvement

Marketing

The marketing in charge and partner (dealers) are responsible for overseeing the customer satisfaction and to ensure the customer requirements are met. Customer satisfaction is an important indicator for measuring Quality Management System. Authentic data is collected for this process as well as the frequency and validity of analysis. Those trends and major elements that affect customer satisfaction and the key indicators of customer dissatisfaction are monitored with the help of objective evidence. Once every twelve months a customer analysis survey is done.

Human Resources

For the establishment, implementation, maintenance and continual improvement of the Quality Management System, Spectra Hexa Feeds Ltd provides for necessary resources. This responsibility is taken care of by the Human Resources. Not only that but they also make sure customer satisfaction is achieved by meeting customer requirements. For the effective implementation of the Quality Management System, and for the operation and control of its processes, people who are to be responsible are recruited by the organization. Human Resources and the process in charge ensures the reliability and expertise of the personnel, giving them necessary training.

2.9 Industry analysis

Bangladesh is a land of rivers with a 6.4 percent water area it is normal that aquaculture holds a significant position in our economy. The rising demand for fish as a source of protein rich food has also contributed to the aquaculture industry's development. As of 2016, annual fish production is estimated at 3,855,000 metric tonne. According to (Jashim & Kamal, 2019), fish feed holds an estimated 40 percent share of the total feed market. Together with poultry and cattle, its turnover is estimated at BDT 10,000 crore with a growth rate of 9 percent. July to September is the peak season for fish feed sales. The regions, Dhaka, Chattogram and Khulna are the three major hubs for inland water fish production and have the highest demand for fish feed. Most of the fish feed companies are therefore concentrated the Dhaka-Chattogram area. Providing for the needs of the aquaculture sector is over a 100 feed companies. Mentioned below are the top fish feed companies (in no particular order) holding the maximum amount of market share in the industry.

1. Quality Feeds Ltd.
2. Spectra Hexa Feeds Ltd.
3. Paragon Poultry Ltd.
4. Nourish Poultry & Hatchery Ltd.
5. Kazi Farms Limited
6. Aftab Feed Products Ltd.
7. C.P. Bangladesh Co. Ltd.
8. Saudi Bangla Fish Feed
9. Sunny Feeds Ltd.
10. Provita Feed Ltd.

Together these top companies hold 75 percent of market share with the rest of the companies holding 25 percent as stated by (Jashim & Kamal, 2019).

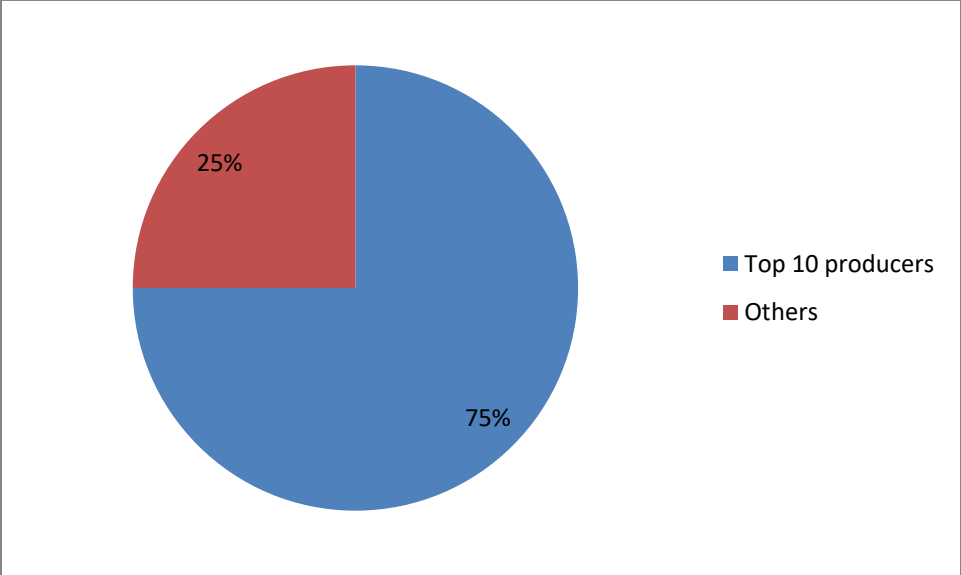


Figure 3: Market share of feed producers

Cost of raw materials and the challenges faced

Bangladesh is not capable of producing 100 percent of its raw materials for producing fish feed which means it has to rely on imports from abroad. Most of its imports are of the most important ingredients needed such as soybean meal, maize, rapeseed, fish meal, corn, microelements such as vitamins etc. The taxes imposed on these imports are also high for which the cost of production increases. As raw materials contribute to 70 percent of the total production, rising prices of raw materials are a great concern for the companies and small scale feed producers in Bangladesh. Adulteration of raw materials also pose as a concern due to the fact that the government does not have any immediate policies to prevent and control these adulterations and also that the companies that try to test for purity do not have advanced equipment to efficiently complete the process.

Most of the companies mentioned above as well as others are not sole producers of feed but also invest in producing meat products. Examples include Kazi Farms Limited and Paragon which have its own subsidiary of frozen foods. These large companies can buy raw materials in bulk and somewhat reduce the cost of production; they also require extensive capital investment. However, the opposite is true for

small scale feed producers who cannot easily achieve economies of scale due to inability to purchase in large scale and also have to carry the extra cost of raw materials.

Spectra Hexa Feed: Market Position

Spectra Hexa Feeds Ltd is among the top ten companies holding the second position in the fish feed industry. Main ingredients used to produce its products are rice polish, soybean meal, mustard oil cakes, and wheat flour, among others. About 40 to 45 percent of its raw materials are imported from abroad while the rest is sourced locally. The products are produced in its production facility in Shibaloy and are marketed as Mega Feed.

2.10 Conclusion

The fish feed industry is a thriving market for the aquaculture sector. With proper regulations and guidelines in raw material quality, imports and prices, the industry can eventually succeed in earning a distinguished position in the world market and can be a greater contributor of income source for the country. The next chapter will look into the market and the effects Covid-19 had on the industry.

Chapter 3

Introduction

3.1 Background

It has been more than a year since Covid-19 has hit the world and is continuing to wreak havoc. The deadly virus is not only affecting households but also businesses financially and globally with many businesses suffering tremendous losses to having to change their policy of operating businesses. The damage is more critical for small businesses who are struggling to balance costs and resource allocation. The imposition of lockdown has also taken a heavy toll on many organizations which do not have the option to provide their workers with work from home option. Reductions in demand and supply have also posed as a major issue during the pandemic. The agricultural sector of Bangladesh is one of the top four largest economic sectors in the country. The damage caused by the pandemic to this sector is a significant concern. Fishery is a part of the agricultural sector which has faced its own challenges during the pandemic, with all sectors poorly affected. Fishery businesses that rely on imports of raw materials from abroad such as the fish feed industry had to experience a rise in its production cost after the decision of shutting down international borders was taken in the first half of the previous year. Fishers and farmers have also been affected as they saw a decline in their income from reduced fish prices and overall demand. Hatcheries, uncertain about the market demand have failed to empty their ponds leading to a rapid decline in the demand of fish seeds and hatchlings. To control the negative consequences the virus is having on the sector, the government has been taking certain steps and has planned to provide incentives to small scale farmers as assistance. However, it remains to be seen whether these incentives are reaching the concerned parties and if they are of any help to at all.

3.2 Objectives

The objective of the study is to analyse the effect of the pandemic in the fish feed industry of Bangladesh, the extent the fish feed industry is being affected and the government's role in mitigating the negative effects. The perspective of Spectra Hexa Feeds Ltd is taken to analyse the market condition and the effects the pandemic had on the organization. For an overall scenario, the prospect of the industry is also seen.

3.3 Literature Review

Several organizations and firms have researched and analysed the effects of Covid-19 on the fish feed industry. Organizations such as the World Fish Centre and The Fish Tank and firms such as IDLC and Light Castle partners have published online reports on the issue. Light Castle Partners conducted research on the pandemic's effect on the fisheries sector, with their primary study conducted on four regions in May, 2020. The study produced results overviewing the fisheries sector in those regions and how the changes in variables such as prices, transportation, income, and consumer preferences have adversely affected the sectors as a result of the pandemic. They have also analyzed the effects the lockdown had on demand of premium fishes and the long term impacts it would have overall. WorldFish together with their experts have also published a blog detailing the effects of the pandemic on all sectors of the aquaculture. The article accounted the pandemic's effect on the individual sectors such as the fishers, farmers, seed, feed etc. They capped off the article giving probable options the sector can look forward to for recovery. The article by Syed Mafiz Kamal and Tasfia Jashim titled 'Feed feeds Bangladesh' provides insights on the fish feed market, the market share and the challenges the fish feed producers face. The paper 'Fisheries Resources of Bangladesh: Present status and future direction' (Shamsuzzaman, Islam, Tania, Al-Mamun, Barman, & Xu, 2017) gives an overview of the fishery sector, its statistics over the years and its contribution to the economy.

3.4 Methodology

The report has used both primary and secondary data sources to research the topic. The primary data was collected from Spectra Hexa Feed Ltd. while the secondary data was sourced from various news articles and websites from the internet.

Primary data

- Communicating with the supervisor and colleagues
- Organization records
- Factory visit

Secondary data

- News articles on the pandemic
- Websites
- Organization website

3.5 Limitations

Several limitations were faced when collecting data and conducting the research. The organization did not have sufficient data on how the pandemic affected its business. Collecting secondary data was also difficult due to the absence of appropriate articles on the topic. Data on the industry was also not easy to source from primary sources and had to rely on website articles for information.

3.6 Findings and analysis (How Covid-19 has affected the fish feed industry)

The activities of the aquaculture industry have been affected like every other sector in the country. With people losing jobs and uncertainty rising in livelihood, people began to reduce their consumption and resorted to spending on bare necessities. Demand for premium fishes has dropped shifting demand to low

value fishes. This loss in demand of fish has profoundly affected the fish farmers and small scale feed producers in the market for the worse. The decrease in price of fish has also reduced the income source of the farmers with some falling into debt. Many fish producers opted to not sell their stock leading to the delay in harvest for the next season. In regions such as Mymensingh, Rajshahi and Khulna prices of fish have significantly dropped to 40, 18 and 9 percent respectively. After the imposition of the lockdown, the supply chain had to suffer as a result of limiting transportation. This has caused the price of transportation to increase and have also caused losses for hatcheries which could not deliver the hatchlings on time and had to discard them. Farmers fearful of the virus had chosen to stay indoors or have migrated to their hometowns reducing the market activity significantly during that period. Bangladesh exports several varieties of fish to the international market and the pandemic has greatly affected that industry as well. With exports coming to a standstill during the lockdown, the Exporter's Association's losses amounted to an estimated \$46.9 million.

Fish feed mills which largely depend on raw materials for its production faced uncertainty and delays after the imports were halted. Because the ingredients sourced locally are limited in number and are of medium quality, the companies had to face the dilemma of delaying their production or continue producing compromising the quality. Experts assumed the supply of fish feed would drop by 40 percent due to the situation. Feed companies also faced problems with transportation and further complications with their supply chain. Not being able to deliver their goods on time and on the market meant they incurred losses in sales.

How Spectra Hexa Feed has been affected by the pandemic

Given the imported raw materials are essential for the organization's production, the closure of borders during the pandemic has caused much delay and disturbances in the production. For instance, raw materials shipped from abroad faced problem during delivery and clearance due to the delay in shipment. This resulted in the delay in the delivery of the final product to the local market. The abnormal rise in

prices of raw materials also meant that the cost of production was higher. Moreover, as a result of the closure of several transportation routes, the delivery of hatchlings had to be postponed. However, losses were not that substantial and the organization could easily spring back after the lockdown period was over.

3.7 Conclusion

After a year of the pandemic, the world has adopted the current situation as the new normal. Despite the initial shock and damage many organizations have adjusted and have learnt to operate as per the situation. The case is not true for organizations that operate in the agricultural industry. As these industries have to operate and have consumers in the rural areas where the use of internet is of no use, it took them more time to create a new normal. Agricultural stakeholders such as farmers and fishers for example work physical labor and do not have the option to work from home. However, after lockdowns were eased many business activities began to settle back to their original position and are continuing to do business normally. Even though the government has expressed interest in helping the farmers and producers at grass root level with necessary incentives, the intended incentives were never received. The organizations however had it easy as they are big investment companies and could easily recover the initial losses afterwards.

3.8 Recommendation

The effects of the pandemic are not yet over and the world has yet to experience what it has in store. For this situation, the government has to take an active stance in providing aid to the most badly affected so that they can avoid falling into debt and at least have some source of income. The same is true for organizations where government can help by regulating the imports of raw materials and stabilize its prices. With appropriate aids and governance, the sector can again resume normal business.

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