



Internship Report
On
“Training on Processing of Frozen Foods
In
CHHIP Food BD Limited”

Submitted

To

Dr. Nizam Uddin
Associate Professor & Head
Department of Nutrition and Food Engineering
Faculty of Allied Health Science
Daffodil International University

Submitted

By

Md. Parves Sarkar
ID: 191-34-915
Department of Nutrition and Food Engineering
Faculty of Allied Health Sciences
Daffodil International University

Date of Submission: 04.10.22

Certificate of Approval

I am pleased to certify that the internship report on “Training on Processing of Frozen Foods In CHHIP Food BD Limited” conducted by Md. Parves Sarker, bearing ID: 191-34-915, department of Nutrition and Food Engineering has been approved for presentation and defense/viva-voce. I am pleased to hereby certify that the data and findings represented in the report are the authentic work and carried out by Md. Parves Sarker. He bears a strong moral character and a very pleasant personality. It has indeed a great pleasure to certify him for his defense /viva- voce. I wish him all success in life.

Dr. Nizam Uddin
Associate Professor and Head
Department of Nutrition & Food Engineering
Faculty of Allied Health Sciences
Daffodil International University

Letter of Transmittal

Date:04.10.22

To
Dr. Nizam Uddin
Associate Professor & Head
Department of Nutrition and Food Engineering
Faculty of Allied Health Science
Daffodil International University

Subject: Submission of Internship report.

Dear Sir,

With due respectfully to state that, I am hereby submitting my Internship report on “Training on Processing of Frozen Foods In CHHIP Food BD Limited” I have learned a lot of things by practical work during the internship period, which is a part of the B.Sc in Nutrition and Food Engineering program curriculum. It was a great experiences for me to work in the production department of CHHIP Food BD Ltd. This internship gave me both academic and practical exposures that will help me to build my career as an organized person.

I therefore pray and hope that you would be kind enough to receive this report and provide your valuable judgement considering my knowledge on it and thus oblige thereby.

Sincerely yours,



Md. Parves Sarker

ID: 191-34-915

Department of Nutrition and Food Engineering Faculty
of Allied Health science
Daffodil International University

DECLARATION

This is to certify that Md. Parves Sarker, Bearing Id No. 191-34-915, is a student of Bachelor of Science in department of Nutrition & Food Engineering at Daffodil International University, Bangladesh. He has completed his work under my guidance. He has submitted the report titled "Training on Processing of Frozen Foods In CHHIP Food BD Limited" on his practical experiences in CHHIP Food BD Limited as a partial requirement for the completion of the NFE program.

I am pleased to state that he worked hard in preparing this report, and he has been able to present a good picture of the concerned work. The report has been prepared under my supervision. I am also pleased to certify that the information presented in the report is authentic.



Supervisor
Ms. Nasima Akter Mukta
Assistant Professor
Department of Nutrition and Food Engineering
Faculty of Allied Health Science
Daffodil International University

Acknowledgements

First of all, my gratitude goes to the almighty Allah for giving me the patience and capability to successfully complete my duties and responsibilities in a well-controlled and sound health.

Cordially I would like to express my deep gratitude to **Ms. Nasima Akter Mukta** , Assistant Professor, Department of Nutrition and Food Engineering, Daffodil International University for providing me valuable guidance to complete my work. As a student I was many lacking in theory and practical subject even when I participated in internship there was some complex process after sharing with her, she provided me proper solution that helped me to get lot of knowledge during internship program.

My deepest respects and thankfulness to **Professor Dr Md. Bellal Hossain** creating this enormous scope of practical knowledge in the curriculum and give opportunity to work with CHHIP Food BD Ltd as a intern.

I greatly admire Zaeed Bin Rajjaque, Production officer, CHHIP Food BD Ltd, Mashiqur Rahman Sohag, Production officer, CHHIP Food Bd Ltd and also thanks to Dipto Roy Bappi, Factory Incharge, CHHIP Food BD Ltd for giving me precious time, provide important knowledge about different process of production and teaching me various practical aspects of industrial life and organizational behavior as well.

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Summary

During my Bachelor of Science (B.sc) Degree in Nutrition and Food Engineering, I have got a great chance to work at CHHIP Food BD Ltd which is the very significant part of my study period under the program. The duration of my internship program was 10th - June - 2022 to 30th - June - 2022. CHHIP Food BD Ltd is emerging popular brand in local market of Bangladesh. It is fish based company which is situated Ashulia, Savar, Dhaka. This company produces lots of fish based products as frozen food items including spicy fish nuggets, spicy shrimp ball, spicy fish ball, spicy fish finger and fish sausage.

The main purpose of this internship was to gain practical knowledge about the production process of frozen fish item. This report has been structured by company profile and technology, process flow chart, products ingredients, and product processing with its short discussion including the production line and the production process. I would like to believe that the overall experiences gained during this internship program will help me in my professional career and also it is undoubtedly helpful for my future studies or organization where I could execute this knowledge.

Chapter 1

History of the Company

CHHIP Food BD started in 2015. Commercial production of frozen food with fish has not started in Bangladesh yet. In that time the triumph of chicken all around. Everyone from children to old people started getting fat as a result of this fast food addiction and unhealthy practice. At that time, there were reports of contamination of chicken especially of the firm's chicken production process and its health risks. But to ensure a balanced diet everyone needs animal nutrition and other nutrients to stay healthy. Using a motto “A Healthy Food For A Wealthy Mood” The CHHIP Food BD factory has officially started its own journey with the dream and challenge of presenting fish in a different way to the taste buds of Bengalis. The products are available in all the elite superstores of Dhaka city. It's on the list, such as Meena Bazar, Prince Bazar, Nandan, Mehedi Mart, DSS, Zimmert, CSD, Krishibid Bazar and many more.

As well as products are also available in various restaurants and if you order online, the product will be home delivery in Dhaka City. All the frozen food items of CHHIP Food BD are HALAL Certified and tested for quality and nutritional value from BCSIR (Science lab) and Department of Food and Nutrition Science, University of Dhaka. It is not directly fish, but a variety of fun, delicious, safe and healthy frozen snack items made from fish that will guarantee extra satisfaction and nutritional value to your taste buds.

Aim of Training:

Internships are an excellent way for students to gain real-world experience while also earning money. Many companies offer paid internship opportunities, and you may even be able to find unpaid ones. You should check out your school's career services office for information about available internships.

Objectives:

The goal of the project is to create a platform that will allow consumers to buy food online safely and securely. We aim to provide a solution that will allow consumers to purchase fresh food online safely and securely while also providing a service that will allow them to receive their orders quickly and efficiently.

The specific objectives of this study are as following: -

1. CHHIP Food BD Ltd is a company focused on the production of frozen food products. Their goal is to produce high quality products at an affordable price. They also provide quality control services to ensure the safety and freshness of their products.
2. Earned Knowledge is the knowledge gained through experience. It is not something you get from books, courses, or other sources. It comes from your own experiences and observations.
3. Earned knowledge is often referred to as tacit knowledge because it is hard to put into words. It is also called experiential knowledge.
4. Identify different critical control points in production line and overall factory. The processing of frozen items
5. Satisfied the requirements of the National Free Education Program

Scope of this Study:

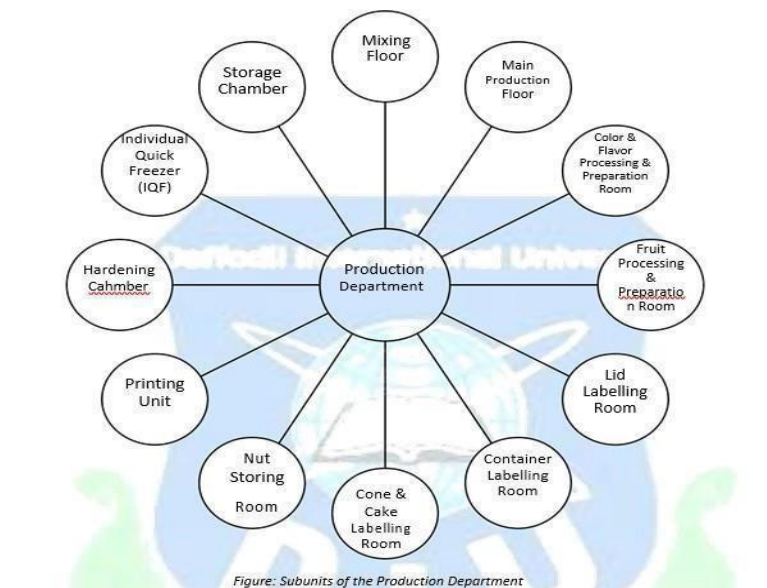
This report has been constructed through extensive discussions with the internal processing team at CHHIP Food BD. The main focus of the internship training is the hygienic production and quality control of frozen foods and further frozen goods, composition standard and quality processing of the frozen products carried out by the fish producer company. The report covers detailed information about the production flow chart, and brief discussion.

Chapter 2

Production Department of CHHIP Food BD Ltd

Production Department:

Production is the main function of any company. It is responsible for making products that customers buy and consume. Production is also responsible for keeping the company running smoothly. A production department will usually consist of several different divisions, each with its own specific duties. For example, a division might be responsible for designing the product, another for manufacturing it, and yet another for marketing it. Some companies may even have separate divisions for research and development.

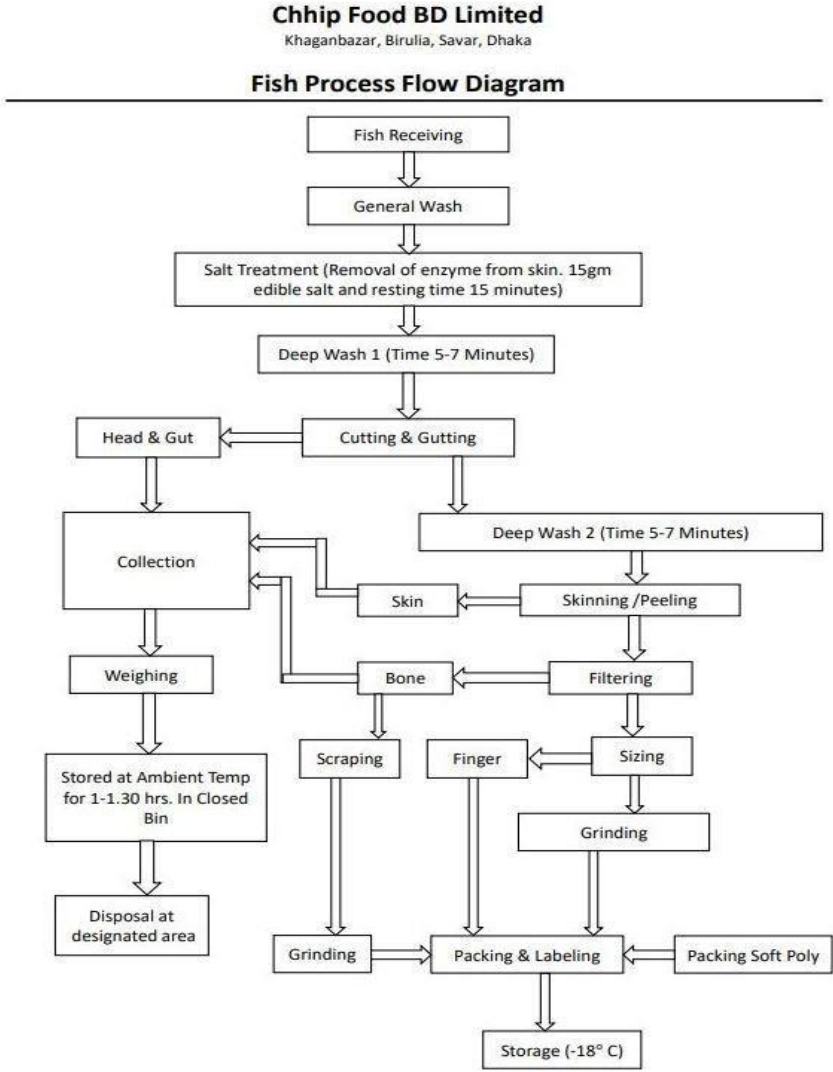


In the mixing floor is where all the ingredients come together to create your product. Here you will find the machines that mix everything together, including the machines that add flavorings and colors. You may also see the machines that cut and shape the finished products.

In the Color & Flavor Processing Room, the experts formulate recipes for different products. These recipes are then processed through machines to create the required colors and flavors.

Discussion of products and flow chart

Fish is the main stuff of CHHIP Food BD Ltd, Based on the fish this company producing their production. Bellow I have demonstrate the fish processing flow chart.

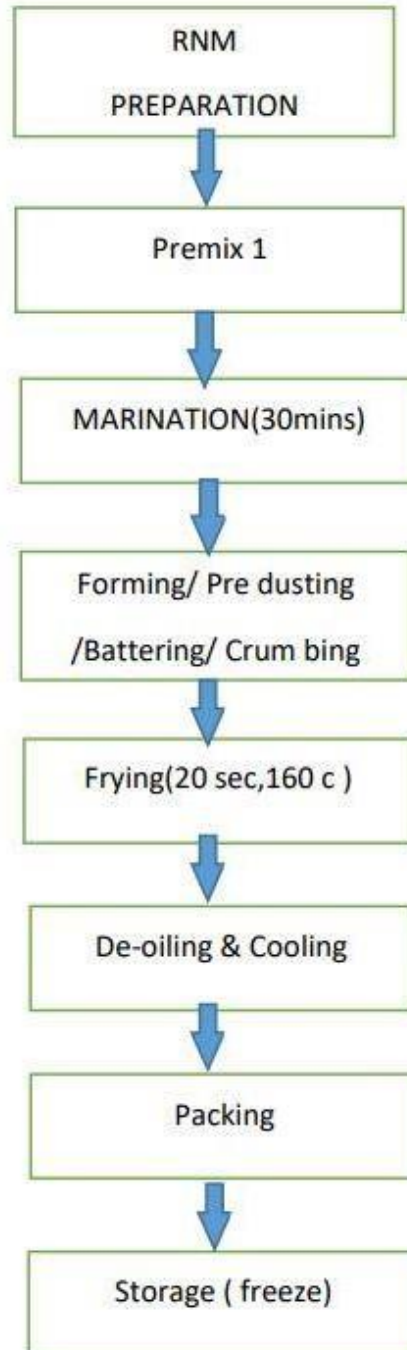


1. Crispy Cajun Shrimp Bites: This Cajun Bites is a great appetizer for any occasion. You can prepare it by conventional baking method or microwave. When using conventional oven, bake 10-15 min at 180°C or till internal temperature reaches 75°C. If you are using microwave, heat 2-3 minutes and do not overheat. Main ingredients are shrimp, red chili powder, salt, MSG, Sugar, Vinegar, Pre Dust, Batter, Bread Crump and Water for marination.



Figure 1: Crispy Cajun Shrimp

Flow chat of Crispy Cajun Shrimp

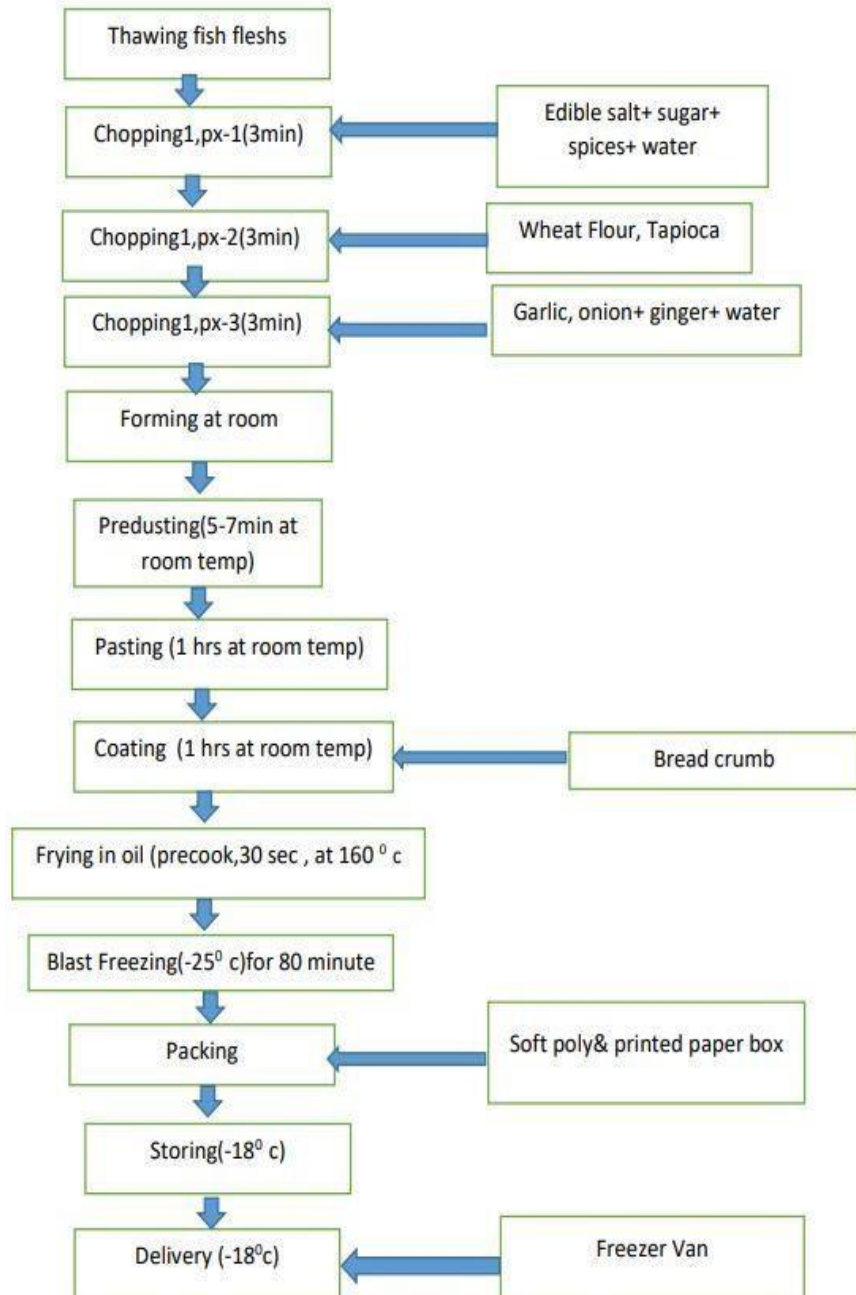


2. Spicy Fish Nuggets: Fish nuggets are made from fish, spices, and other ingredients. The main ingredients are fish, salt, MSG (monosodium glutamate), sugar, baking powder, pepper powder, tapioca starch, flour, milk, egg, oil, vinegar, garlic paste, gingerpaste, onion paste, dried chili, crushed chili, ice, pre-dust, batter, breadcrumbs, and water for batter. These ingredients are mixed together and then fried until golden brown.



Figure 2: Spicy Fish

Flow chat of Spicy Fish

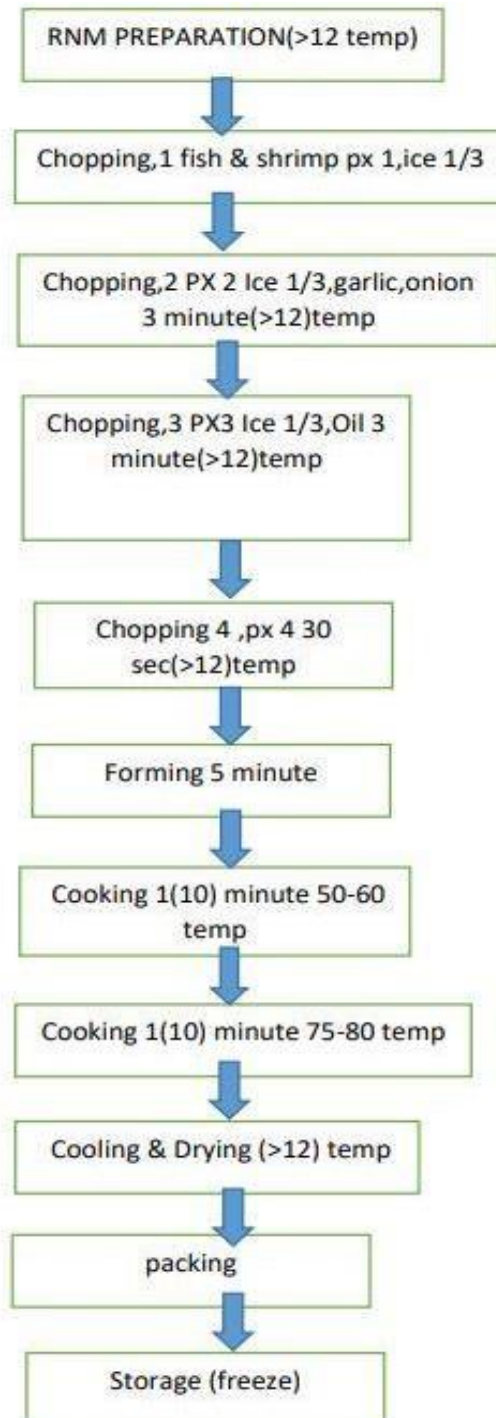


3. Spicy Shrimp ball: Shrimps are small crustaceans found in tropical waters around the world. They are usually eaten raw or cooked. Pangus fish is also called sea bass or grouper. It is an oily fish that tastes delicious when grilled. Salt is added to enhance flavor. MSG is monosodium glutamate, a chemical compound commonly used as a flavoring agent in processed foods. It is derived from glutamic acid, an amino acid. White paper powder is a type of flour made from rice bran. Baking powder is a leavening agent. Tapioca starch is a thickening agent. Sodium benzoate is a preservative. Fresh onion and garlic are used to add flavor. Fresh green chili is used to give a spicy kick. Ice is added to keep the shrimp cool during cooking. Vegetable oil is used to cook the shrimp.



Figure 3: Spicy shrimp ball

Flow chat of Spicy shrimp

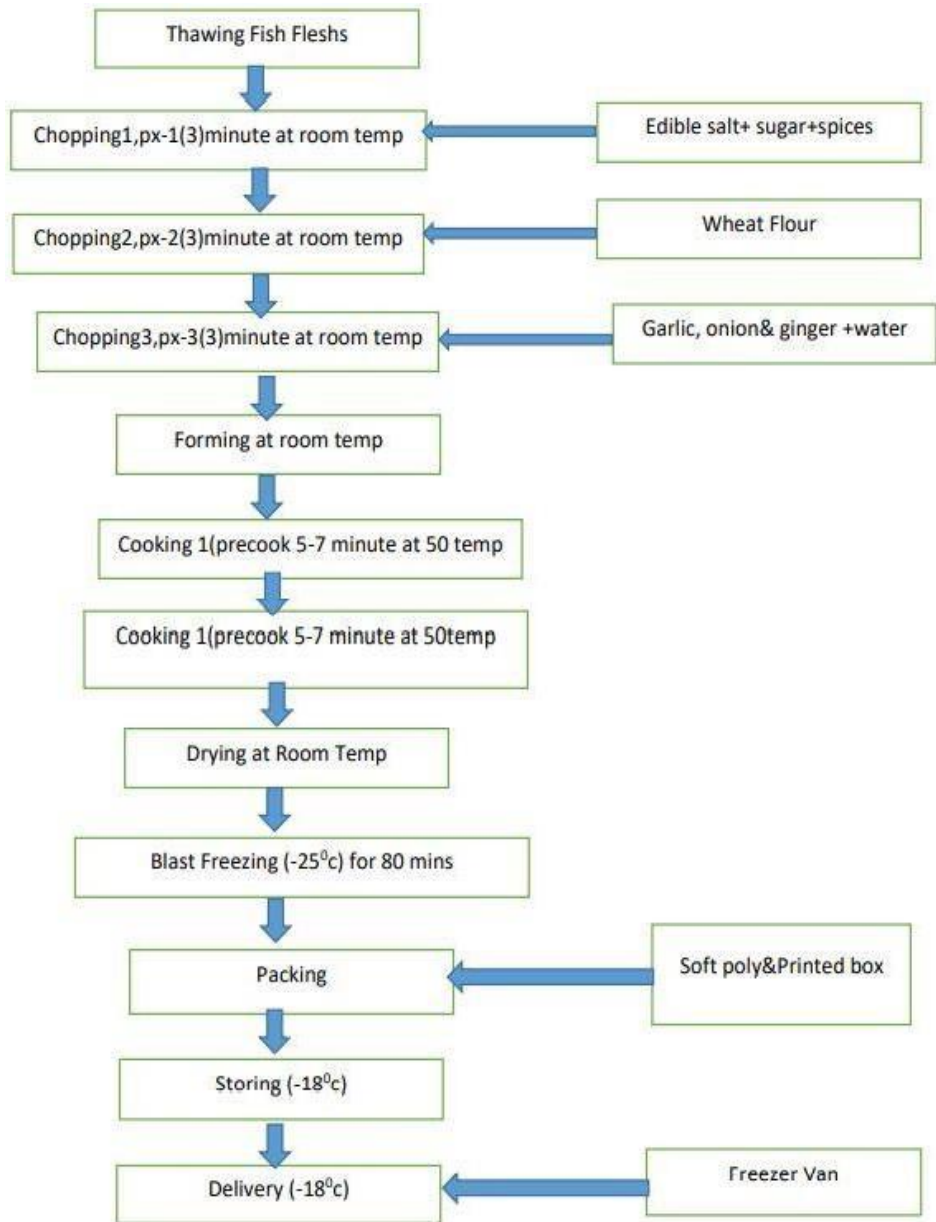


4. **Spicy fish ball:** This is a frozen dessert made from pangus fish and its ingredients including fish fat, salt, sugar and sodium benzoate. It is fried at 160°C and cooked for 3 minutes or until golden brown before serving.



Figure 4: Spicy fish

Flow chat of Spicy fish ball

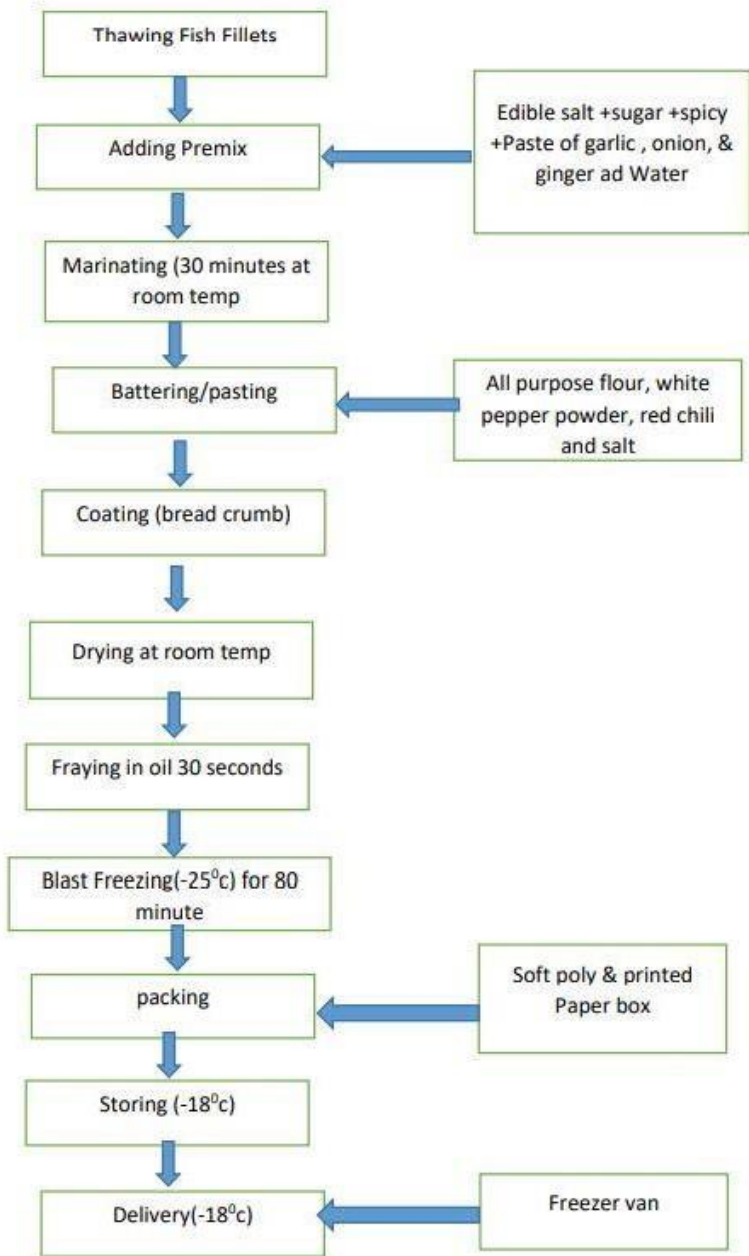


5. Spicy fish finger: Fish finger isn't just any other frozen food. It's a unique product that originated in the United States. Fish fingers were first sold in the 1950s, when they were made from cod fillets dipped in egg wash and deep fried. Today, fish fingers come in many varieties, including chicken, beef, turkey, shrimp, and even vegetarian options. Some restaurants offer fish fingers baked instead of fried.



Figure 5: Spicy fish

Flow chat of Spicy fish

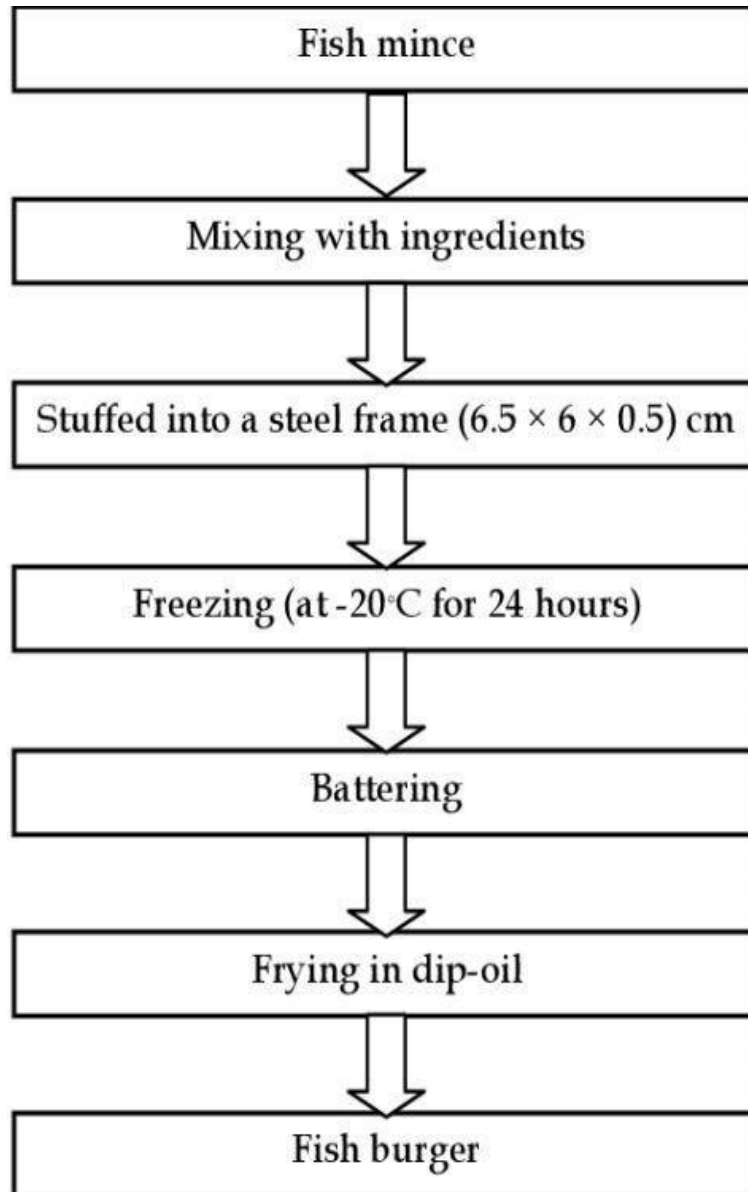


6. Fish Burger patty: Fish burgers are made by mixing ground fish with seasonings and spices. Fish burgers are usually served cold, but may be cooked like beef burgers. Fish burgers are often served with lettuce, tomato slices, onion rings, pickles, ketchup, mustard, and other condiments. Fish burgers are sometimes called "fish sandwiches" because they are similar to hamburgers.



**Figure 6: Fish Burger
Patty**

Flow chat of Fish burger

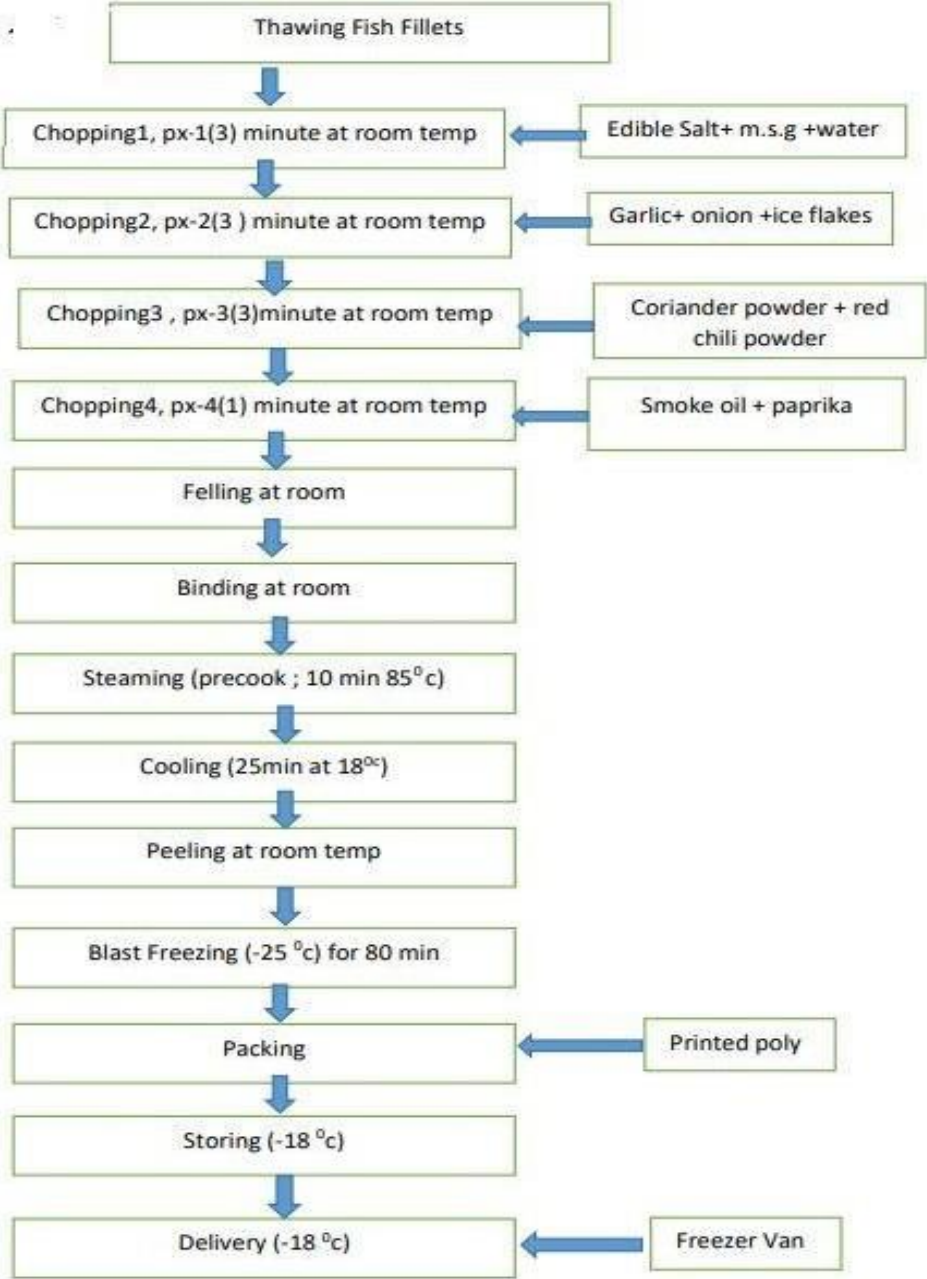


7. Fish sausage: Fish Sausage is a frozen product that brings variety and provides keeping quality of different products. One of them is fish sausage that gets more acceptance among consumers to consider its usages and variety. Fish sausage needs fish, salt, MSG (monosodium glutamate), sugar, red chili powder (chili flakes), coriander powder, black pepper, zeramix, red chili semi crushed (semi-crushed chili), puprica oil and smoke flavor. To prepare it for consumption, it should be baked for 10–15 minutes at 180°C or until internal temperature reaches 75°C.



Figure 7: Fish Sausage

Flow chat of Fish



Calculation of Pre-

Pre-Dust: Pre-dusts is a parts to some batter and breaded food amount, occasionally namely the basic interface 'tween the substrate and covering and these structures and play a alive role in optimizing covering bond. It's more play a key function in determining the character of two together the substrate and the covering after boiling and re-warming or boiling. They help block moisture from moving into the coatings, accordingly custody the substrate wettish and the coating brittle. Pre- dusts further maybe used to combine flavor into finished fruit.

Code	Ingredients	GTY	%
1	Corn Flour	1	50
2	Rich Flour	1	50
Total			100

Calculation of Batter per kg batch

Batter: Batter is a mixture of water, flour, eggs, milk, oil, yeast, salt, baking powder, and sometimes other ingredients. Batter is used to coat foods before frying them. For example, batter is used to coat chicken pieces before deep frying them. Batter is also used to coat dough before making breads.

Code	Ingredients	GTW	%
1	Corn Flour	150	14.63
2	Rice Flour	60	5.85
3	White Flour	800	78.048
4	Sugar	5	0.48
5	MSG	5	0.48
6	Red Chili	5	0.48
Total		1025	99.536

Chapter 3

Freezing Unit and Quality Control Test

Freezing Frozen foods are usually kept at low temperatures to maintain their freshness. Freezer bags are designed to protect the contents from damage caused by moisture loss during storage. Some bags contain an inner liner that keeps the bag airtight. Others may have a zipper closure. Frozen foods are often sold in boxes, cans, or plastic containers.



Figure 8: Blast and Deep

Quality parameter test:

Quality is an important factor when buying food. Consumers need to be sure that what they buy will meet their expectations. Quality assurance programs help ensure that food meets certain standards. These tests are done to see if the product is safe, nutritious, and free of harmful chemicals.

Protein: The presence of protein are determined to keep products quality. The protein percent of products are maintaining 17.07% per 100gm.

Fat: CHHIP Food combine 3 types fat test that keep the products quality attributes smoothly. The three types test including Saturated fat, Omega -3 fatty acid, Omega -6fatty acid and amount is respectively 1.94%, 0.53%, and 1.17% also total fat 6.13% per 100 gm.

Carbohydrate: Mainly two types Carbohydrate are measure for keep the quality these are sugar and Dietary fiber the amount of carbohydrate is 0.70% and 0.78% also total carbohydrate is 19.55% per 100 gm.

Minerals: Minerals are important element to keep quality of products, in this frozen food items where sodium, calcium and iron are observing to get best products from all edge of quality. The amount of Sodium is 725.79 mg per 100 gm and Calcium is 561.96 mg per 100 gm and iron is 13.61 mg per 100 gm of sample.

Practical Activities inside CHHIP Food BD Ltd

Pictures



Conclusion

This internship at CHHIP Food BD Ltd was quite well-organized and provided me a lot of valuable experiences during the internship program. I attained practical knowledge on frozen food processing based on fish as raw material and it was an amazing time that I spent while working at CHHIP Food BD Ltd.. The team members were all really nice and welcoming. They made sure I got everything I needed to get started and helped me out whenever I asked for help. I learned a lot about the industry and even got to meet other interns from around Bangladesh. Overall, I had a fantastic experience and I'm looking forward to continuing to work here next year.

Finally, I'd like to express my gratitude to the management of CHHIP Food BD Ltd, for giving me such opportunity to work for such as reputed company.