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"ANALYSIS OF FISH PROCESSING INDUSTRYS IN AROOR"

Dissertation submitted to Mahatma Gandhi University in partial fulfilment of the Requirements for the award of degree Bachelor of Arts (Economics)

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CERTIFICATE

This is to certify that Nazeem Nizar and Ansil M H of III BA Economics ,have Successfully completed their dissertation entitled " **Analysis of fish processing industry's in aroor** " during the academic session of 2023 - 2024.

The project has been accomplished under the direction and guidance in partial fulfilment and The requirements for the award of degree of Bachelor of Arts(Economics) of the Mahatma Gandhi University

They are granted permission to submit the dissertation

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DECLARATION

This declaration is made on behalf of Nazeem Nizar and Ansil M H, final-year BA Economics students at Bharata Mata College Autonomous, Thrikkakara, with respect to The Dissertation we submitted for the award of a Bachelor of Arts in Economics, with the Title“Analysis of fish processing industry’s in aroor”

As far as we are aware, this work is devoid of any content that has been published before, written by a different individual, or that has been partially acknowledged for the award of any other degree or diploma from the university or another higher education institution—with the sole exception of the instances in which proper recognition has been given within the text

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Date :

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CHAPTER 1: INTRODUCTION

1.1introduction

In economics, fish processing refers to the range of operations and sectors that turn unprocessed fish into goods that may be sold. This comprises procedures like filleting, canning, and cleaning that support commerce, employment growth, and the development of economic value in the fishing sector. Local economies reliant on fishing as well as international markets where processed fish products are traded are both affected economically.One of the most important concerns for people is unemployment. The practices of the fish processing business are significant in all facets of life.Processing is more than just preserving. By transforming fish into a variety of goods like fillets, frozen dinners, tuna in a can, fish oil, and more, it increases the value of fish. Producers' market reach and profit margins are expanded as a result. From processing facilities and distribution networks to associated businesses like packaging and equipment manufacturing, the sector creates jobs across a range of sectors.Seafood and fish are important global commodities, and trading with other countries has a big impact on national economies. Processing that is efficient enables nations to access export markets.Particularly in areas where access to fresh fish is restricted, processing guarantees greater availability of seafood high in protein by prolonging its shelf life and decreasing waste.

1.2 Fish Processing Analysis in India

In India, the processing of fish is a major industry that generates income from exports as well as jobs. Numerous tasks, including cleaning, filleting, freezing, and packaging, are involved in this industry. Economic analysis would take into account things like foreign exchange profits, the generation of jobs, and the overall effect on the export and agricultural sectors. Furthermore, evaluating the fish processing value chain, market patterns, and governmental regulations can shed light on the industry's economic importance.The fish processing sector contributes to the improvement of impoverished people's household income and employment prospects. An important segment of the Indian industrial sector is the fish processing industry. This industry is still plagued by a number of issues. The purpose of this study is to identify potential recommendations that could aid in the future development of the fish processing sector.

1.3 Fish Processing Analysis in Kerala

The economic analysis of fish processing in Kerala entails examining the effects of fishing, processing, and distribution on the state's economy. This involves evaluating how the fish processing sector affects employment, revenue production, and general economic expansion. The adoption of new technologies, consumer preferences, and governmental regulations are other important variables that influence Kerala's fish processing industry's economic environment.The fish processing sector in Kerala provides a variety of work opportunities.Because it generates jobs and boosts local economies, it is essential for sustaining livelihoods, particularly in coastal communities.

1.4 Statement of the Problem

This topic was chosen to know more about how fish processing industries led to economic Advancement. Knowing the economics of fish processing makes it easier to assess how it affects trade balance, income distribution, and employment creation in the economy as a whole.For businesses and governments, understanding market trends, pricing changes, supply chain efficiencies, and consumer behavior is essential. This can be achieved through the analysis of fish processing economics.Analyzing the economics of fish processing makes it easier to spot opportunities for value addition, which raises profitability and competitiveness by creating new products, cutting waste, and improving processing technology.In fact, in the communities where it works, the fish processing sector can help lower the living conditions of the underprivileged. It can aid in rescuing individuals from poverty by offering them access to markets, income, and employment possibilities. Communities can gain from it in a number of ways, including how it can boost local economies and enable infrastructural development. But variables like laws, the nature of the market, and the distribution of wealth within the sector all affect how much of an impact it has.Using the available secondary and primary data helps to understand how the fish processing industries improves the economic development.

1.5 Significance of the study

The significance of this investigation into the economics of fish processing in Aroor cannot be overstated.Aroor, located in Kerala's coastal region, is an important economic hub and a prime illustration of the complex link between people and the fishing industry. Understanding the economic dynamics of fish processing in Aroor can aid policymakers, stakeholders, and investigators alike, since it provides a balanced perspective on the area's socioeconomic environment.This research identifies opportunities for equitable growth, sustainable development, and improved livelihoods in Aroor and surrounding areas.

In summary, this study highlights the ways in which Aroor's economy is benefited by the fish processing industry, including the emergence of markets, increased revenue, and job opportunities.This study goes beyond a mere economic analysis to illuminate the broader socio-cultural impact of fish processing in Aroor. This study is conducted to understand the various key insights in the units to find major cost challenge's and also the revenue source. Especially analyze the crucial source of employments and role of woman participation. Also, intends to study the various types of fish processing and understand the impact it has on the economy. Also, this study intends to understand more about the variety of value add products and to understand how much importance these types of value products create in the economy

1.6 Objectives of the study

1. **To analyze and find out the cost and revenue of fish processing industry** : Determining the cost and revenue of the fish processing sector entails examining the costs associated with labor, materials, and equipment as well as the proceeds from the sale of fish products that have been processed. This evaluation aids in comprehending the industry's profitability, efficiency, and state of finances.

2. **To analyse the employment potential of fish processing industry** : Examining the ability of the fish processing business to create jobs directly and indirectly through processing, packaging, distribution, and other services is part of the analysis of the industry's employment potential.

3. **To understand the value addition in fish processing industry** : Understanding value addition in the fish processing business is essential for optimizing earnings and satisfying consumer demand for premium fish products. This covers operations that add value to the goods.

1.7 Research methodology

Methodology is the methodical procedure of gathering data and information for scientific investigations. This strategy covers a number of topics, such as the goals of the study, sample choices, sampling methods, and more.

Based on the objectives formulated, the following is taken to conduct the study:

• Sources Of Data: The study is conducted by acquiring primary sources of data to obtain information.

• Primary data: Primary data is the data collected for the first time. In this study, Primary data is used for analyzing the revenue incurred in fish proccessing industries and whole analysis of major activities of industry

• Secondary data: Secondary data is used from published and unpublished sources like magazines, journals, several websites, etc.

• Sampling method: The method used is the stratified sampling method. Stratified sampling involves dividing a population into groups with similar characteristics and then randomly selecting samples from each group.

• Population: The total people or entities involved in fish processing

“Sampling size: 10 samples are randomly chosen for conducting this study. A survey using a questionnaire is conducted after taking as a representation of the total population. The sample size for the study is fixed at 10”

1.8 Tools of analysis

Microsoft Excel is a versatile data analysis application that can clean, sort, filter, and visualize data to generate tables, charts, and graphs for better understanding. The questionnaire was created using Google Forms, which provides a visual summary of survey results through charts and graphs.

1.9 Scope of the study

The fish processing sector is vital to the world economy because it creates jobs, ensures food security, and stimulates economic growth. Technological developments, sustainability programs, and the rise in demand for processed seafood products are some of the major themes. But problems like overfishing, pollution, and unstable markets make industry sustainability difficult. The industry has a significant economic

impact both domestically and internationally, contributing to trade, GDP, and foreign exchange profits. Additionally, it is an essential source of employment, especially in developing nations and coastal areas. By adding value through processing, fish products become more economically valuable, generating higher-value items for export markets and promoting economic diversity and growth. All things considered, the fish processing sector plays a vital role in the world economy by supplying food, employment, and income across borders

1.10 Limitations of the study

1.Time,cost and location factor became major difficulty in completing of research.The extent or depth of the investigation may be limited due to time, budget, or resource availability.

2.Inaccuracies in measurement tools or methods can influence the reliability and validity of the results.

3.Financial limitations in research relate to constraints or restrictions on the availability of funding that can affect the breadth, quality, and feasibility of a research efforts

4.Unpredictability and risk within the fisheries industry sector

5.This type of fish processing unit has a lot of restriction to collect data so the data collection procedure does not go ahead without their sanctiones.

CHAPTER 2 : LITERATURE REVIEW

2.1 introduction

A literature review is a critical evaluation of published works—books, papers, and other scholarly publications—that are relevant to a certain subject or research question. It offers a summary of the thoughts and writings on the subject, points out gaps in the body of knowledge, and supports the necessity for additional study.This type of literature study allows us to learn more about our subject and, more importantly, to better understand it.We are able to contribute more to our subject when we have deeper understanding of a certain topic we have selected by previous researchs on that topic.We also received access to a few literature reviews, which provided us with an overview of the particular subject.

2.2 Survey of literature

2.2.1 Kandoran M.K. (1986) In their work thesis named "Technology Transfer in the Fish Curing Industry in India.The goal of this research is to examine the discrepancy between the technology that is currently available and the technology that is being used in the fish curing sector.According to this study, fish was solely processed in India using the curing method until 1953. Exports of preserved fish are made to Malaysia, Singapore, Hong Kong, Burma, and Sri Lanka. Approximately 2010 fish varieties are utilized for curing in India. Nevertheless, the sector of fish curing was unable to expand rapidly. Because the majority of those working in this profession were illiterate and undereducated fisherman who could only produce low-quality, unsanitary fish items. Such items spoil soon. Therefore, it was essential for the fish curing business to implement contemporary techniques in order to reduce waste and enhance the quality of Smoked fish. As a result, the Central and State Governments implemented programs, such as training sessions, movie screenings, exhibitions, etc., to educate fish curers about the latest advancements in fish curing technology. These initiatives led to fish curers beginning to use the enhanced methods of fish curing. The technology that is currently available and the technology used in this field still differ significantly. It was determined that adopting fish curers is encouraged by knowledge of new technology.

2.2.2 Mathew Pauline and Lingam Lakshmi (1998) In their research paper titled "Migrant Women Workers in Fish / Prawn Processing Industries", Navi Mumbai, have brought attention to the numerous issues faced by women workers who left Kerala, including lower pay, dirty and crowded housing circumstances, a lack of social life, unhealthy working conditions, longer workdays, and health concerns. Issues, mishaps, emergency care, etc. Kerala women make up the bulk of the workforce in Maharashtra's freezing factories. They work as graders and packers under contractors. Keralan women are more skilled graders, but because of poverty and a lack of job prospects in their state, they are paid less.

2.2.3 Nair M.K.R. (2007) In his study named "Fishery Management In India- Present Status, Challenges, and Road Ahead,"The author has talked about the current state of fishery management and the difficulties facing the marine fishing industry. The marine industry faces several challenges, including a lack of knowledgeable cadre of fishery managers, inadequate training for current cadres, a lack of state

management policies for fishery resources, overcapacity in coastal fisheries and a lack of political will, the capture of juvenile fish, overfishing, habitat destruction, and the absence of a legal framework to control fishing in the EEZ at the federal level.

2.2.4 Davies RM, Davies OA (2009) In their work "Traditional and improved fish processing technologies"The goal of the study on fish processing mechanization In Bayelsa State was to determine the key variables influencing the mechanization as well as to assess the various processing methods that fish processors use. Four fishing settlements from each of the four local government regions studied were contacted personally and using structured questionnaires in April and May 2008. Sun-drying 3 (2%), and smoke-drying 65 (36%) were the most common fish processing methods available. Among the fish processing methods, drum oven 86 (47%) was the most popular. The method of processing used determined the amount of losses during fish processing. Almost all processing centers had firewood, as reported by 60 (49%) of them. Depending on the technology, female operators were

2.2.5 Karmakar K. G. and Banerjee G. D. (2009) According to their paper, the low per capita income of Indians results in very little demand for value-added items in the home market. That fish has been located. Kerala, Gujarat, Andhra Pradesh, Tamil Nadu, Maharashtra, and West Bengal have a higher concentration of processing plants. They have gone into detail about a number of issues facing the fish processing sector, including low installed capacity utilization, a lack of raw materials, a decline in local demand for value-added goods, and import limitations.

2.2.6 George M Hall (2011) This book takes a two-pronged approach to addressing the issues affecting the global fish industry: it introduces fresh concepts and technologies while providing the most recent information on current ones.The book by outlining the historical context of fish processing in the near future. The second chapter examines the sustainability and environmental implications of traditional fish processing, including ways to improve outputs that are now regarded as waste and increase processing efficiency. Additionally discussed is the effect of computerization and mechanization on environmental sustainability.The next chapters look at the most recent advancements in well-known fish processing techniques like canning, curing, freezing, and chilling, with a focus on the packaging's environmental effects as well as the actual procedure. Furthermore, processing and quality parameters for individual species—including newly discovered species—are explained. Authors have the chance to present future technology and applications to a broader readership in the second half of the book. These include the acceptance of fermented products by a broader market, the use of fish processing by-products as aquaculture feed, and the extraction of bioactive compounds from by-products for use in cosmetic, nutraceutical, and biomedical applications. The study of mechanization of fish processing in Bayelsa State was conducted to evaluate different types of processing techniques that are being employed by fish processors and identify the major factors affecting the mechanization. The information was gathered using structured questionnaire and personal communication between April and May 2008 from four fishing communities in each of the four local government areas surveyed. Among the different fish processing techniques available, smoke-drying was prevalent 65 (36%) and the least, sun-drying 3 (2%). Drum oven

86 (47%) was highly favoured among the fish processing technologies. The losses during fish processing was dependent on the processing technique adopted. Firewood was commonly observed 60 (49%) in virtually all the processing centres. Female operators were dependent on the type of technology adopted. Women were predominant in adoption of traditional techniques of fish processing while men were the key actors under improved technologies. Majority of the fish processors had only primary school education 47 (52%) while those with secondary and tertiary educational qualifications were 19 (21%) and 3 (3%) respectively. The criteria adopted for selecting technology were significantly dependent on cost and benefits. The source of information available to the fish processors on technology awareness was mainly from fellow fish processors.

2.2.6 Bhardwaj K.D. (2011) In his book named "Modern techniques in fish Handling an processing" noted that the value addition might improve by five times if we are successful in using more by-products as human nourishment and as additives in foods, medicines, cosmetics, etc. The majority of the by-Products are utilized as raw ingredients to make animal feed. However, marine by-products can be turned into protein by employing gentle processing methods. The use of marine by-products through soft processing techniques has been covered in this book.

2.2.7 Salim Shyam S. (2012) has identified a number of the fish processing industry's shortcomings, including high production costs, a lack of raw materials, low capacity utilization, and a lack of quality control throughout primary production.Centers, shifting consumer preferences for high-value goods, etc. He went on to list the issues facing the aquaculture and mariculture industries. Numerous issues affect aquaculture, including a lack of high-quality seeds, a manpower shortage, high labor costs, and the expense of pollution control techniques. Additionally, the marijuana industry has certain restrictions such include inadequate water leasing regulations, a lack of skilled personnel, climate change, and significant financial investment

2.2.8 Nedumaran G. (2014) In his study titled "Growth and Development of Indian Fishing Industry"The author has examined the expansion of the fishing sector in India during the 21st century. According to his research, over 10% of the world's fish species variety is found in India.A total of 23% of the fish produced in the nation is processed and preserved, with 16% going toward drying, 7% going toward freezing, and less than 5% going toward canning. Among the 1376 fishing Overall, there are just 256 developed fishing centers. Stated differently, only 18.6% of fishing centers have been developed. In order to accommodate the needs of the current fishing fleet, the author has proposed that more fishing harbors and landing facilities need to be developed.

2.2.9 Rai Sunita (2015) In his book named"fish processing technology"has covered both conventional and contemporary methods of processing fish, including those that involve controlling temperature with ice, refrigeration, or freezing, Drying, salting, smoking, adding acids, vacuum packing, controlling microbiological loads chemically, controlling microbial loads physically by heating them in a microwave or by irradiating them, and controlling water activity.The significance of implementing a Hazard Analysis and Critical Control Points (HACCP) system in fish processing facilities is also highlighted. To guarantee food safety, this approach must be implemented at every stage of the fish processing process. Moreover,

it is Discovered that because the cold chain in the domestic market has not yet evolved, freezing and cold storage are mostly utilized for the export of fish products in developing nations.

2.2.10 S Salim Shyam, M Ramees Rahman, M Nashad (2016) Fish can lose quality very quickly after being caught because it is a highly perishable meal. For this reason, drying, the least expensive and most effective method of food preservation, is still used in India. Despite being an inexpensive and straightforward procedure, it is very important to the socioeconomic structure of fishermen because dried fish is in high demand both domestically and internationally. In light of this, the current study examined the economics of using fish drying as a means of value addition. Ten fish drying processors who were chosen at random from Puthiyapa's fish drying yards provided the primary data for the study.The particular goals were to evaluate the drying process as a whole, as well as the process's cost and profit analysis, seasonality, species utilized for drying, and quantity of drying. The investigation exposes the usage of an inappropriate and unreliable conventional drying process in the study area, which poses a major risk to public health. Additionally, the report recommends building fish drying facilities, which might increase revenue during fish surplus by providing better

2.2.11 Veeranjaneyulu K (2016) In their book named "Recent Technologies in fish and fisheries"complex fish processing techniques and value-adding strategies.They discovered that fisheries byproducts, such as glue, gelatin, pearl essence, peptones, amino acids, isinglass, fish albumin, fishmeal, and fish oils Fish and fish waste are used to make acids, protamines, fish skin leather, etc .Shrimp and crab waste is used to make chitosan and chitin. Fishery byproducts are in high demand in the biochemical and pharmaceutical industries. Examples of these include bile salts, insulin, and glucosamine

2.2.12 S Kanthimathinathan, F Rekha Morais (2018) According to their study"Economic Impact of Fish Processing on Women Workers"The principal source of income for a large number of households is the seafood business, which is derived from the domestic and international fish trade. Fish collection, processing, marketing, and distribution provide a livelihood for millions of people worldwide. In India, women make up about 90% of the workforce in the agricultural and related industries. Around the world, women are thought to make about 70% of the labor in aquaculture. In the seafood processing industry, women make up the majority of workers, regardless of the type of processing—frozen or fresh fish, cutting or putting in tins, or altered inputs such finfish, shellfish, or mollusks. Approximately 47% of the 120 million individuals employed in the catch fisheries and post-harvest industries are female on average.According to the World Bank Survey (2010), women make up 85.5% of fish processing workers globally.Approximately 35,000 people are employed in the fish processing business, with women making up 75% of this labor.Women make up more than 90% of the workers in prawn pre-processing facilities and 70% of those in other fishery product processing.

CHAPTER 3 :DATA ANALYSIS AND INTERPRETATION

3.1 Introduction

Data analysis is the act of evaluating, cleaning, manipulating, and modeling data in order to discover usable information, draw conclusions, and make decisions. It entails a sequence of procedures, beginning with data collecting and ending with data cleansing to eliminate inconsistencies and inaccuracies.

Interpreting data entails making sense of the results of data analysis. Critical thinking and domain knowledge are required for this phase in order to generate significant insights and conclusions from the data. It is important to grasp what the data is saying us about the topic under study.

Data visualization is another crucial component of data analysis and interpretation. Data visualization using charts, graphs, and dashboards aids in the efficient communication of findings and the identification of trends that may not be visible from raw data

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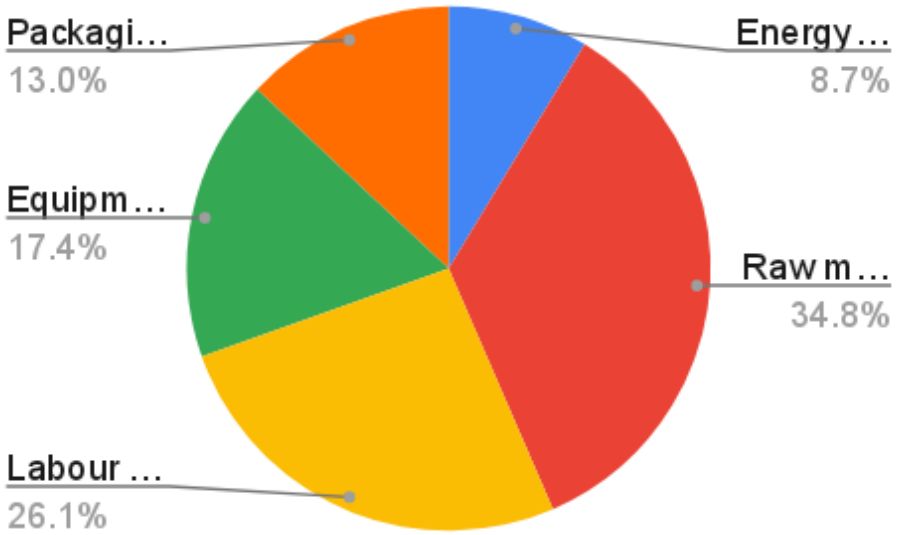
Finally, effective data analysis and interpretation necessitate a combination of technical proficiency, domain knowledge, and critical thinking. It's not only about crunching numbers; it's also about understanding the context in which the data was acquired, as well as the ramifications for decision-making.

The data below were developed by themselves based on an investigation of the fish processing industries in Aroor. The data collected here is primary, as it was obtained through the preparation of a questionnaire. This data is useful for future references and investigations.The data is presented as a pie chart based on the questionnaire

3.2 Data analysis and interpretation of the study

3.2.1 Analysis of operational cost of firm



Data source : Primary data survey

OPERATIONAL COST OF FIRM	RESPONSE PERCENTAGE
PACKAGING COST	13.0%
ENERGY COST	8.7%
EQUIPMENT MAINTENANCE COST	17.4%
RAW MATERIAL COST	34.8%
LABOUR COST	26.1%

The information above indicates that the fish processing sector is losing money for a number of reasons. They don't focus their expenditures in just one sector. The demand for raw materials is higher across all fish processing sectors.Yet, the graph makes it clear that their large percentage of costs(34.8%) are related to raw materials.Additionally, consider negotiating long-term contracts with suppliers to ensure pricing stability.To retain profitability, it could be required to gradually modify prices by passing on some of the higher expenses to customers.

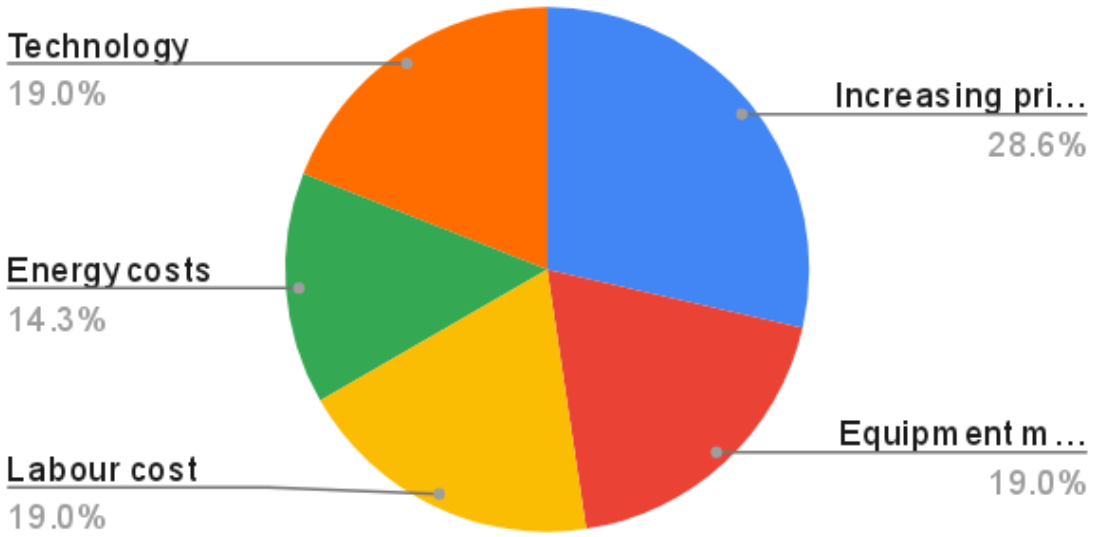
3.2.2 Analysis of spending on labour

Source of data : Primary data survey

SPENDING ON LABOUR	RESPONSE PERCENTAGE
LESS THAN 10%	50 %
10 TO 20 %	50%
20 TO 30 %	0
30 TO 40 %	0

Every industry that processes fish pays a share of its labor costs. The most precious resource for an industry is labor. Many individuals are employed in the seafood processing sector. Thus, their expenditures for them range from 10% to 20% and less than 10%.Spending for this type of labor is that the total performance of an industry will be greatly benefited, and such expenditure is driven by the self-development of each individual as well as the job prospects of society as a whole. All this kind of labor spending only affects their unit positively.

3.2.3 Analysis of cost challenge's

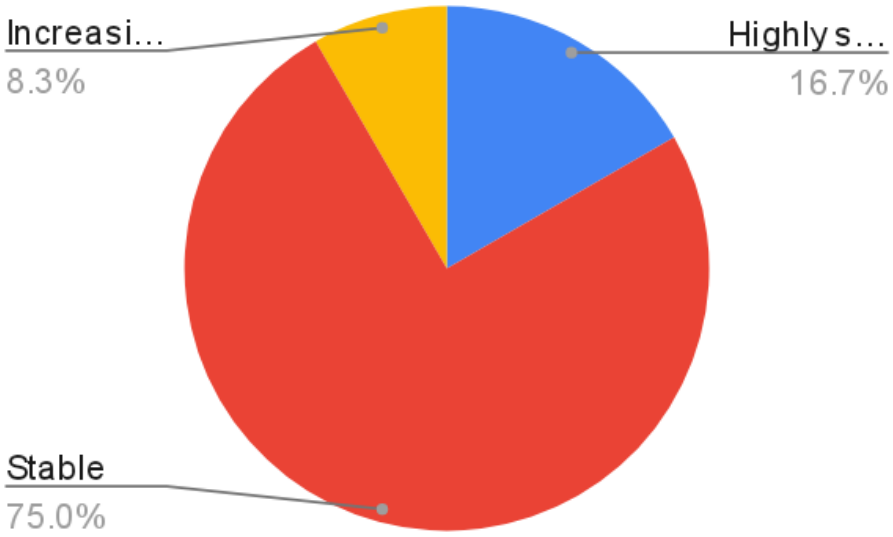


Source of data : Primary data survey

COST CHALLENGES	RESPONSE PERCENTAGE
TECHNOLOGY	19%
ENERGY COST	14.3%
LABOUR COST	19%
INCREASING PRICE OF RAW MATERIAL	28.6%
EQUIPMENT MAINTENANCE	19%

The fish processing business faces enormous obstacles on a daily basis. They are dealing with numerous obstacles in numerous areas. They are having difficulties with practically everything, but the daily rise in raw material prices (28.6%) is the biggest obstacle.Investigate alternate suppliers or places where raw materials may be more economical or less impacted by price swings. Furthermore, investing in technology and processes to improve resource usage can assist reduce waste and lower production costs.

3.2.4 Analysis of product demand in local market

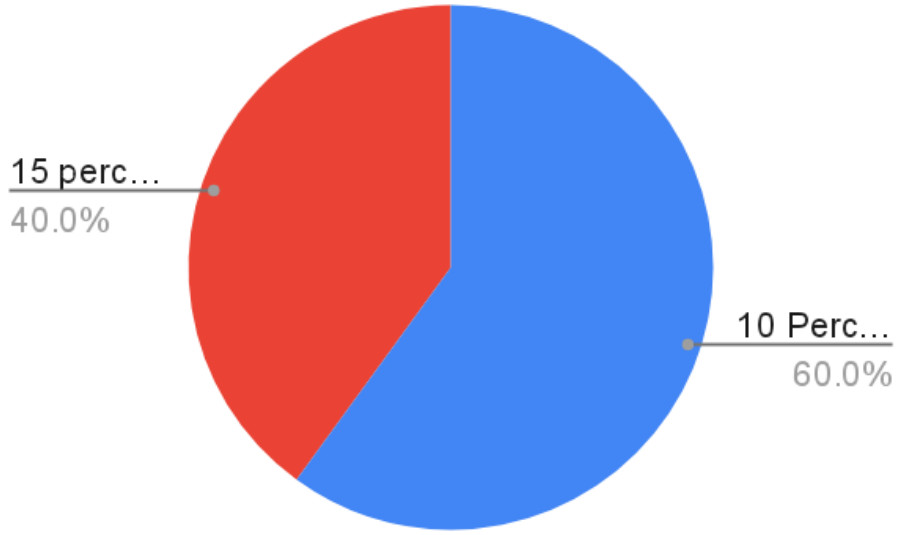


Source of data : Primary data survey

PRODUCT DEMAND IN LOCAL MARKET	RESPONSE PERCENTAGE
HIGHLY STABLE	16.7%
STABLE	75.0%
INCREASING	8.3%
DECREASING	0

Fish products are the items that the majority of people in a society require to meet their necessities. As a result, fish product demand in 75% of the local market remains consistent. Also, 16.7% of demand is highly steady, while 8.3% increases when market demand for the product rises. As illustrated in the graph, the demand for fish products never declines. This stability and increase in demand show that consumers have a constant need for your items and may possibly be growing their usage over time. Maintaining sustained demand for this type of product benefits the entire fish processing sector as well as society.

3.2.5 Analysis of Net profit margin of firms

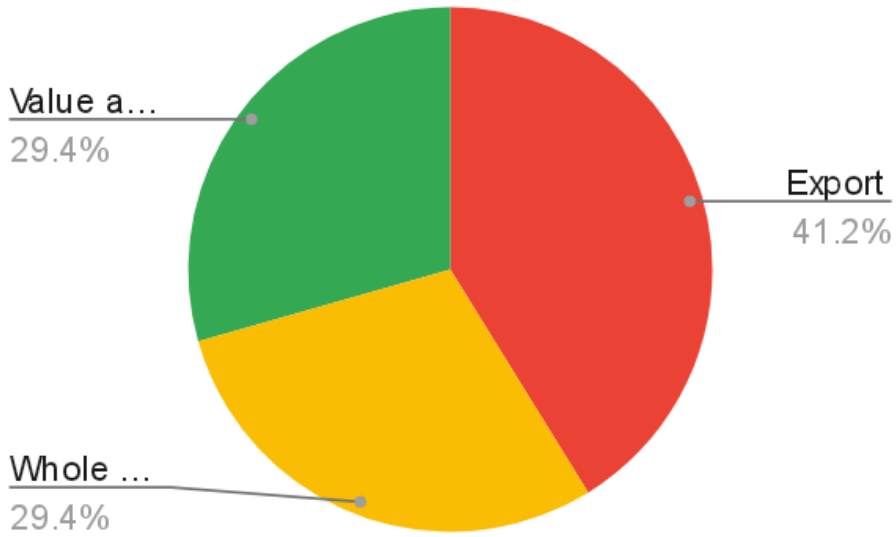


Source of data : Primary data survey

NET PROFIT MARGIN	RESPONSE PERCENTAGE
10 %	60%
15%	40%
20%	0
25%	0
30%	0

Most fish processing companies manage to hold onto 10% of their profit after deducting all costs. This indicates that the sector is profitably moderate, with businesses effectively controlling expenses and producing respectable returns on investment.Due to their strong success, certain industries' net profit margin is rising to 15%.The company is getting more effective in terms of cost management and revenue generation. It indicates that the company's profitability has improved, possibly due to stronger management methods or higher demand for its products/services. To maintain this favorable trend, the company could continue to focus on cost optimization, increasing its client base, or offering new, higher-margin products

3.2.6 Analysis of Revenue source of firms

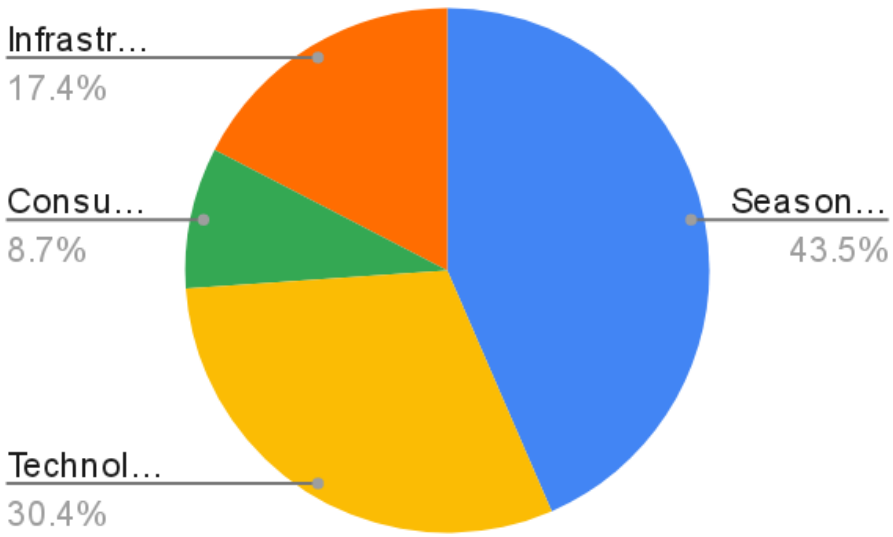


Source of data : Primary data survey

REVENUE SOURCES OF FIRM	RESPONSE PERCENTAGE
EXPORT	41.2 %
VALUE ADDED PRODUCTS	29.4 %
WHOLE SALE DISTRIBUTION	29.4 %

This suggests that the fish processing industry's revenue is primarily derived from exporting its products. According to above data 41.2% of revenue generate from the major source of exporting their products. Exporting its goods is a significant source of income for the fish processing sector. This suggests that processed fish products are in high demand on global marketplaces.By providing these value-added items in large quantities to retailers and other buyers, wholesale distribution is a vital component of the industry's revenue stream. Wide market access and effective product delivery to satisfy consumer needs are guaranteed by this distribution network.especially the value added products and whole sale distribution is also equally contributed to generates revenue for the industry (29.4%) . Kerala has long been recognized for its exports and continues to play an important role, therefore this sort of export is highly traditional and has a major impact on society. As a result, the revenue created by such huge exports benefits both the workers and the rest of society.

3.2.7 Analysis of challenges facing by firms

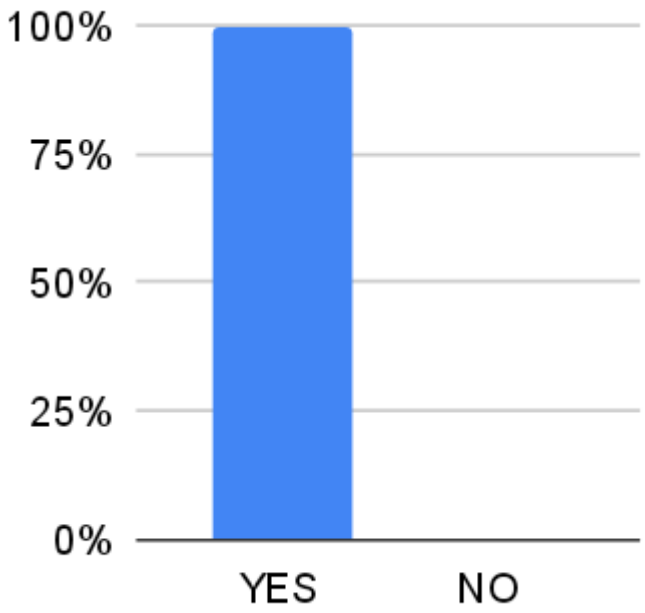


Source of data : Primary data survey

CHALLENGE'S	RESPONSE PERCENTAGE
SEASONALITY	43.5%
INFRASTRUCTURE	17.4%
CONSUMER PREFERENCE	8.7%
TECHNOLOGICAL ADVANCEMENTS	30.4%

Based on the graph given above one of the most significant issues facing the fish processing industry is seasonality, which we might regard as their main issue. 43.5% of industrys are facing the problem of seasonal variations.It is stated that during a specific season, their operations are extremely effective.As a result, because of seasonal fluctuations, their activities during a given season are considered inefficient. all of these seasonality-related challenges result in fewer items being available and more issues with the supply and demand of fish products. Seasonality is a key difficulty for fish processing companies since their operations rely primarily on the availability of fresh fish, which varies by season. This might result in periods of strong production and sales, followed by slower periods, affecting revenue and profitability. Diversifying product offers allows enterprises to counteract the effects of seasonality by creating items that can be marketed all year, lowering reliance on fresh fish availability and stabilizing revenue streams.

3.2.8 Analysis of Employment Impact of the Industry

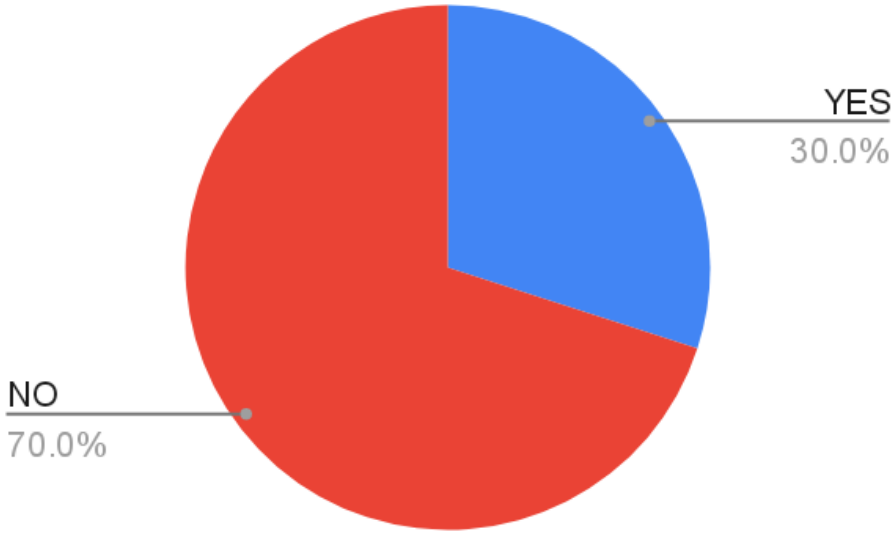


Source of data : Primary data survey

EMPLOYMENT IMPACT ON INDUSTRY	RESPONSE PERCENTAGE
YES	100%
NO	0%

It is clear from the graph above that the seafood processing sector contributes significantly to the creation of jobs overall.100% of the time, they create new forms of job opportunities that benefit the broader public.These types of fish processing companies have a significant impact on society. Unemployment is a huge issue in our country. This type of fish processing unit plays an important role in society by reducing unemployment. And the large-scale employment impact allows people to develop and strengthen their specific skills.

3.2.9 Analysis of Essential Skills for Employment in Firm

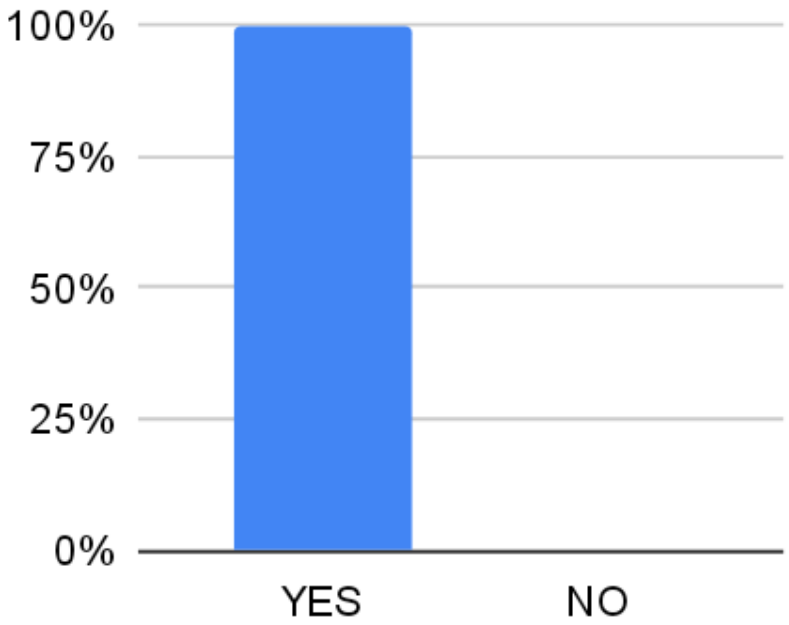


Source of data:Primary data source

ESSENTIAL SKILLS	RESPONSE PERCENTAGE
YES	30%
NO	70%

Based on the above data, This clearly demonstrates that 70% shows that there is no specific skill or knowledge requirement to work in the fish processing industry, so common men, women and all other groups can enter the job opportunity. Because each fish processing sector does not require a certain skill set, they provide a diverse variety of employment prospects, allowing people of various backgrounds to enter this type of unit and gain the opportunity to improve their abilities in a specific way. Every individual can benefit from working in this type of unit as a highly skilled employer.

3.2.10 Analysis of Impact of Industry Expansion on Women's Opportunities

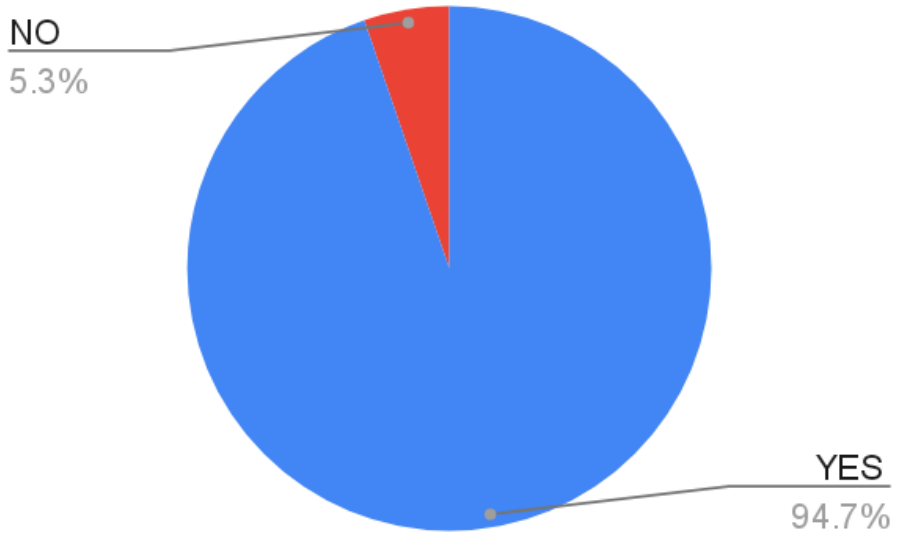


Source of data: Primary data survey

EXPANSION OF WOMEN'S OPPORTUNITYS	RESPONSE PERCENTAGE
YES	100%
NO	0%

Based on the data presented above, 100% of fish processing companies are producing new job opportunities, thus there is a high participation rate among women in these industries, boosting their daily life and level of living.Because of the predominance of women's participation, all industrial operations may be carried out in a fairly stable manner. Unemployment is one of the most serious issues facing by our society, and it is clear that the majority of unemployment is among women, thus this group of women can find extremely good career prospects in the processing industry's. According to a 2018 study by Kanti Mathi Nathan and Rekha S. Morris, women workers in the processing industry have a significant impact on their huge workforce. We can easily grasp their research into the leadership role of women and their level of living, and when there is a significant increase in employment, a society's standards can rise.

3.2.11 Analysis of Economic Benefits for Woman's in industrys

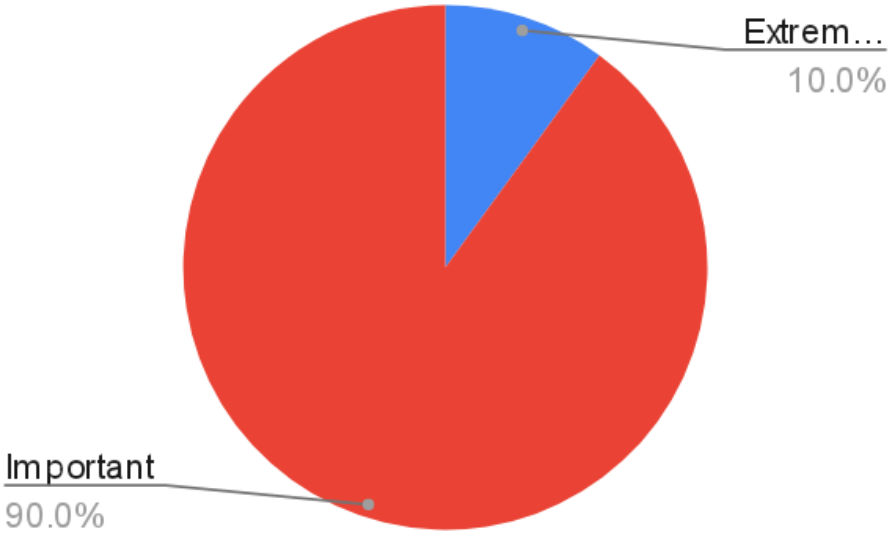


Source of data: Primary data survey

ECONOMIC BENEFITS	RESPONSE PERCENTAGE
YES	94.7%
NO	5.3%

The above graph shows that 94.7 percent of a fish processing industrial women have a lot of economic benefits.By providing employment opportunities to women, their income increases and their standard of living also improves.Working in this type of fish processing unit allows all women to develop specific talents. Women who work in the fish processing business can earn money, which helps them achieve financial independence and improves the economic well-being of their families. This revenue might be critical for meeting household expenses like schooling and healthcare. Women can learn essential skills while working in fish processing. These abilities improve their employability and prospects for progress in the sector. Economic participation in the fish processing business empowers women by allowing them to make decisions, lead, and participate in the community.

3.2.12 Analysis of the Role of Value Addition

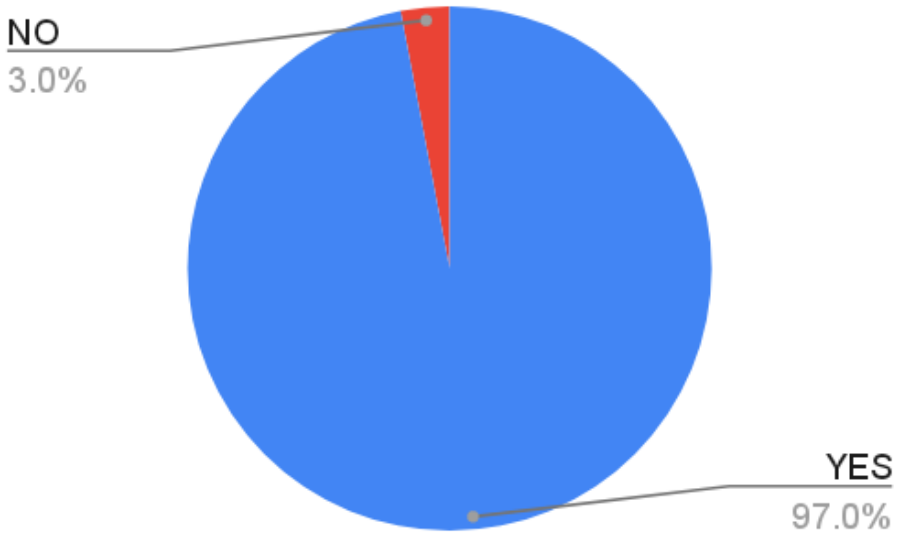


Source of data : Primary data source

ROLE OF VALUE ADDITION	RESPONSE PERCENTAGE
HIGHLY IMPORTANT	10%
IMPORTANT	90%
SOMEWHAT IMPORTANT	0 %

Value addition remains important in 90% of fish processing industries on the basis of data evaluation. This type of value addition creates a major source of revenue for processing industries and a majority of importance is given by fish processing. Value addition promotes economic growth by increasing productivity, creating jobs, and boosting overall prosperity. A value-added product is one that has a consistent demand in society at large. As a result, this type of value product provides high satisfaction to the consumer. These types of value products are regarded as the primary source of profitability for an industry and society, and they benefit the entire industrial society.

3.2.13 Analysis of Impact Demand for Value-Added Products

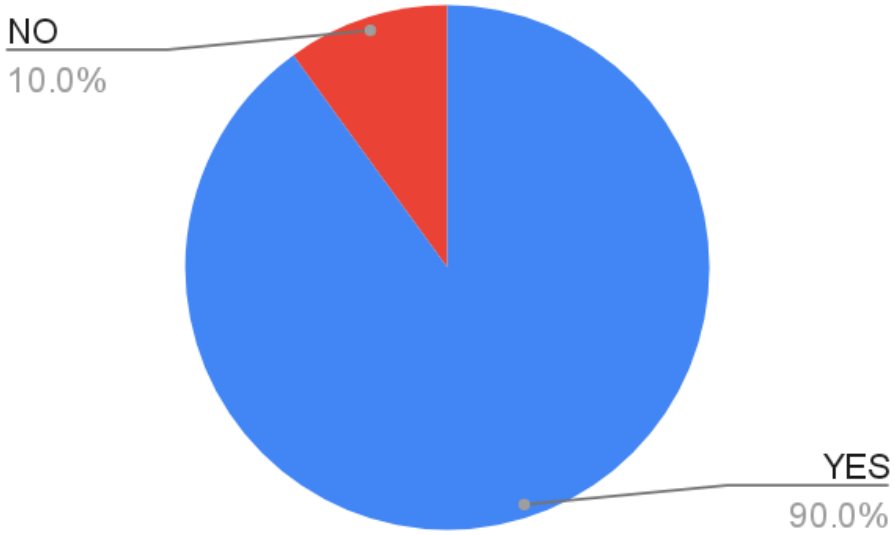


Source of data : Primary data survey

DEMAND ON PRODUCT	RESPONSE PERCENTAGE
YES	97%
NO	3%

Based on the data given above 97% value added products are in high demand in our economy.Value-added products are an unavoidable supply for fish processing companies, and because they are so important in meeting consumer needs, demand for them is quite stable.Value-added goods can also increase consumer satisfaction and loyalty because they fulfill or surpass expectations, encouraging repeat business. They give consumers better features or qualities, making them more appealing and desirable. This increased attractiveness frequently leads to increased demand, as customers are willing to pay a premium for added value. All things considered, the advantages of value-added products greatly increase their market demand, which drives corporate expansion and profitability.

3.2.14 Analysis of Significance of Value Addition in Economic Growth

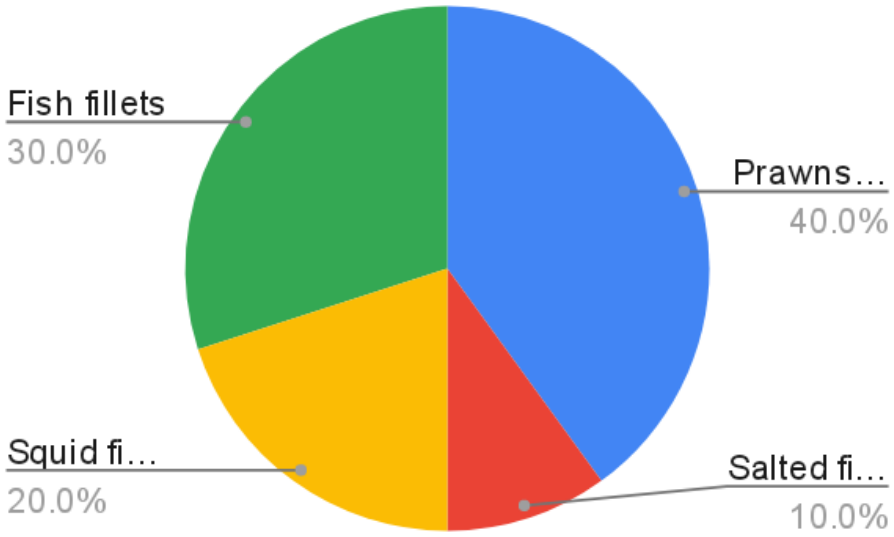


Source of data: Primary data survey

SIGNIFICANCE OF VALUE ADDITION	RESPONSE PERCENTAGE
YES	90%
NO	10%

According to the data provided above, value addition accounts for 90% of a fish processing company's revenue. Aside from the money generated by this sort of value addition and its effective distribution, value product demand generates significant economic benefits and demonstrates that this type of value added product adds to the economy's overall growth. Value addition generates demand for skilled workers by diversifying economic activities and opening more job opportunities. This in turn helps to increase social welfare and reduce poverty. Additionally, by encouraging the adoption of ecologically friendly practices and minimizing resource depletion, value addition supports sustainable development. Value addition can help economies address urgent social and environmental issues and achieve more equitable and resilient growth.

3.2.15 Analysis of the Key Value-Added Fish Products

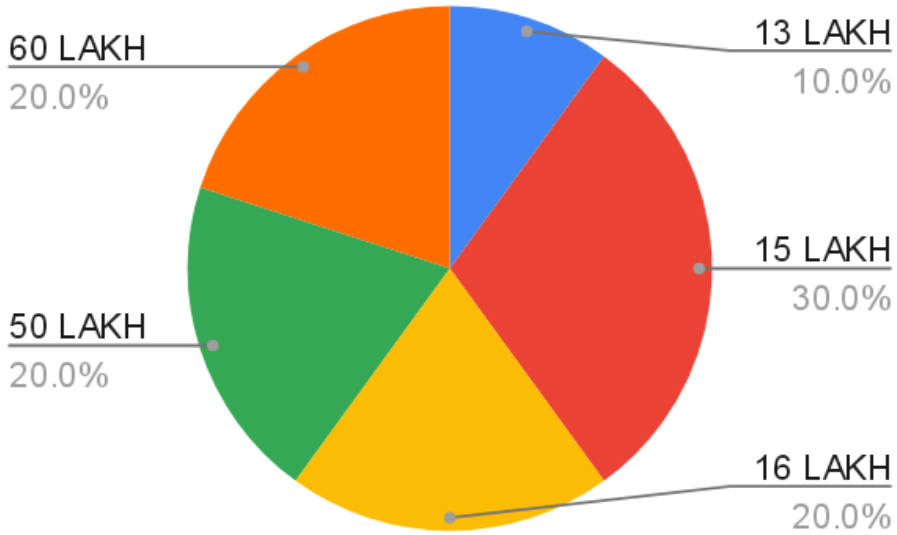


Source of data : Primary data source

MAJOR VALUE ADDED FISH PRODUCT'S	RESPONSE PERCENTAGE
PRAWNS PRODUCTS	40%
FISH FILLETS	30%
SQUID FISH PRODUCT	20%
SALTED FISH	10%

All products act as a major source for the operation of a fish processing industry.However, based on the given data, it should be understood that 40% of the prawn product is processed by fish Processing, exported and distributed wholesale more than other value added products.Also from this type of data it can be understood that prawn product(40%), fish fillets(30%) and squid fish products (20%) all becoming high value export products for a fish processing industry. The research indicates that prawn goods account for a considerable portion (40%) of processed products, reflecting market domination and a strong position in the industry. As key sources of the industry's operations, these items are anticipated to play an important role in driving economic activity, creating jobs, and producing money both domestically and through exports.

3.2.16 Analysis of Average Processing Cost from Last Month

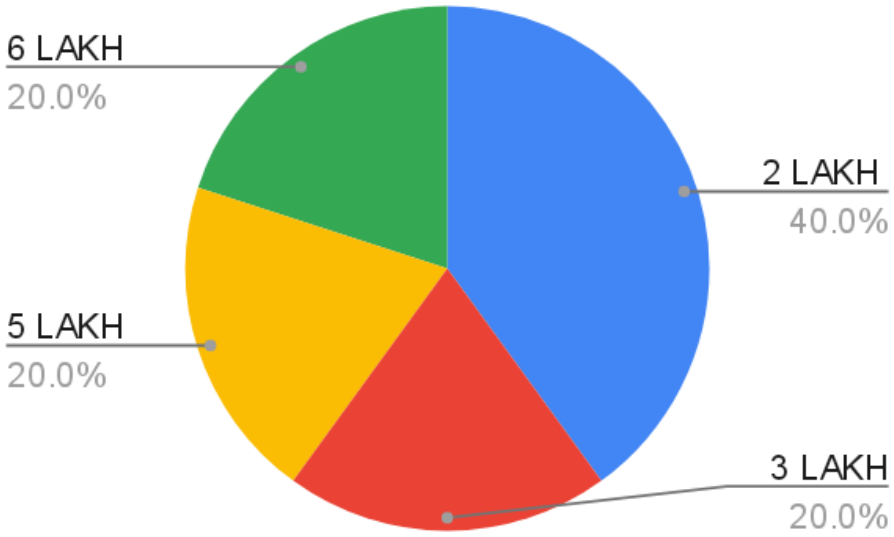


Source of data : Primary data survey

AVERAGE COST OF LAST MONTH	RESPONSE PERCENTAGE
13 LAKH	10%
15 LAKH	30%
16 LAKH	20%
50 LAKH	20%
60 LAKH	20%

30% Based on the given data the average processing cost of a processing industry remains at 15 lakhs.All the processing industries operating as a party state that their average processing cost is close to Rs.15 lakhs. Large companies doing large scale exporting and wholesale distribution are likely to incur an average processing cost of around 50 (20%) lakhs to 60 (20%) lakhs per month. Understanding average processing costs helps businesses allocate resources and budget more efficiently, which improves financial planning and management.

3.2.17 Analysis of Average processing revenue of last month



Source of data: Primary data survey

AVERAGE REVENUE OF LAST MONTH	RESPONSE PERCENTAGE
2 LAKH	40 %
3 LAKH	20 %
5 LAKH	20 %
6 LAKH	20%

Based on the statistics provided, 40% of the average monthly revenue in the fish processing business is expected to be 2 lakhs.Companies that conduct large-scale fish processing operations can earn a significant amount of money based on their investment; nevertheless, small-scale fish processing is active in our country, and such companies receive minor returns and revenue that are appropriate for their operations.A specific data point indicates that a fish processing industry can make a net profit margin of 10% to 15% percent, depending on how much they invest. By improving the efficiency of new technologies and processing concepts, every fish processing company should aim to enhance their net profit margin. This will allow them to achieve greater operational efficiency in tandem with their increased net profit margin.

CHAPTER 4 :

FINDINGS, SUGGESTIONS AND CONCLUSION

4.1 Introduction

Findings and recommendations" is an essential component of every study or inquiry. It comprises outlining the findings or conclusions following an investigation or analysis, then making suggestions or demands for further action in light of those conclusions. This section summarizes the most important discoveries made during the study process and offers practical advice for resolving problems or enhancing current procedures. In order to comprehend the processing unit as a whole, we perform a study in which we collect data and analyze the data to gain a specific overall understanding.

The study "Analysis of fish processing industry's in aroor" is carried out based on the following specific objectives

1.To analyze and find out the cost and revenue of fish processing industry

2. To analyse the employment potential of fish processing industry

3.To understand the value addition in fish processing industry

The method used in the analysis is stratified sampling method. Stratified sampling involves dividing a population into groups with similar characteristics and then randomly selecting samples from each group.

10 samples are randomly chosen for conducting this study. A survey using a questionnaire is conducted after taking as a representation of the total population. The sample size for the study is fixed at 10"

Using the proper statistical and mathematical techniques, the results obtained from the questionnaire were examined. Employing appropriate statistical and mathematical techniques, the questionnaire data was examined to look for information. Using statistical techniques like mean, percentage, and tables, the economic analysis was finished.

4.2 FINDINGS

4.2.1 To analyze and find out the cost and revenue of fish processing industry

- This sort of study, a fish processing test demonstrates that the main primary operating cost challenge is an increase in the price of raw materials.Additionally, they have the highest raw material costs in the processing business.
- As a result, it is clear that the processing unit's primary source of revenue is large-scale product export. The entire sale distribution and value products are almost contributing as a source of revenue.
- Seasonality is one of the most significant challenges that a fish processing operation faces. All of these seasonal fluctuations have an impact on the overall operation of the fish processing sector.
- Demand for fish products in a society and local market remains stable without any problems
- The revenue of each fish processing industry is about 10% to 15% percent of what they invest per unit.Therefore, their revenue is almost stable

4.2.2 To analyse the employment potential of fish processing industry

- Apart from unskilled individuals and migrant workers, these types of fish processing units create a lot of jobs.
- Fish processing is the major source of more jobs for women.These kinds of occupations raise women's standards of living and life savings because they play a significant role in these processing businesses.

4.2.3 To understand the value addition in fish processing industry

- Based on data, value addition is still a vital component of the processing industry, and value products like these continue to have a significant impact on the economy.High demand in society and substantial economic growth are two characteristics of value-added products.

- All fish processing industries create a wide variety of value-added products.like fish fillets, squid fish products, salted fish and many more.However, the dominant product in all fish processing industries is still prawns product, which finds application in more processing industries than any other product.

4.2 SUGGESTIONS

- Every industry can generate a small amount of revenue by making extra production from their operations and thus they can buy more raw materials at that price.

- Since the revenue of all the leaders of the unit is mostly from exporting, the procedure of exporting should be kept stable and maintaine well.they should work accordingly so that there will always be a huge benefit in the growth of economy

- Offer several employment options to a large number of people on a regular basis, and for those who lack motivation to work, offer skill development programs.

- Value is where the product has a great demand in the society.Consumers are increasingly demanding value products to meet their needs.Thus, provide this kind of material to every segment of society as effectively as possible without performing any particular task poorly

- Every fish processing facility can raise the quality of their products by utilizing new technological processing concepts. Therefore, the processing unit shouldn't make any concessions in these situations. All of these activities will raise the average revenue generation percentage of each processing unit

4.3 CONCLUSION

In conclusion , the results of the fish processing test point to a number of important insights and provide insightful recommendations for improving industry income generation and operational efficiency. First off, rising raw material prices pose a major threat to fish processing facilities as they have a substantial effect on operating expenses. Notwithstanding this obstacle, there are still chances for revenue growth due to the steady demand for fish goods in local and societal markets, especially through large-scale product exports.

A major obstacle that affects overall operations becausee of shifting market conditions is seasonality. However, fish processing facilities are essential for creating jobs, especially for low-skilled workers and migratory laborers, which helps women gain economic empowerment. Value addition is still essential to the industry's viability since items like salted fish, squid fish products, and fish fillets propel economic expansion. Prawn goods are particularly noteworthy as the leading product, serving a variety of processing sectors.

Based on these findings, various recommendations can be made to improve industry performance. For starters, boosting production to produce more income might help to offset increased raw material costs. Second, export procedures must be stable and efficient in order to provide long-term economic benefits. Furthermore, providing varied employment opportunities and skill development programs can boost labor motivation and productivity. The emphasis on value-added items that match societal demands is critical for effectively meeting consumer needs.

Finally, embracing technical developments in processing procedures can improve product quality and increase total revenue creation. It is critical for fish processing units to prioritize these recommendations in order to increase their competitiveness and contribute to the growth of the industry and economy as a whole. By implementing these recommendations, the fish processing industry will be able to effectively handle problems while also capitalizing on new prospects for sustainable growth and development.

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QUESTIONNAIRE

- What are the primary Operational Cost in fish processing ?
  - Energy cost
  - Raw material cost
  - Labour expenses
  - Equipment maintenance
  - Packaging cost

- How much is spent on labour for processing ?
  - Less than 10 %
  - Between 10 % to 20 %
  - Between 20 % to 30 %
  - Between 30 % to 40 %

- What are the main processing cost challenges ?
  - Fluctuating raw material prices
  - Labour cost and efficiency
  - Equipment maintenance
  - Energy cost
  - Technology implementation

- How is demand for fish products in local markets ?
  - Highly stable
  - Stable
  - Increasing
  - Decreasing

- What is the net profit margin of the fish processing unit ?
  - 10 %
  - 15 %
  - 20 %
  - 25 %
  - 30 %

- Any government regulations affecting fish processing industry's ?
  - Yes
  - No

- What are the major source of revenue ?
  - Export
  - Whole sale distribution
  - Value added products
  - Sale of fresh fish

- What challenge do you face in fish processing industry's ?
  - Seasonality
  - Labour shortage
  - Consumer preferences
  - Technological advancements
  - Infrastructure

- The fish processing industry has contributed to employment opportunities ?
  - Yes
  - No

- There is any specific skills for employment in fish processing unit ?

  - Yes
  - No

- If fish processing industry create more employment opportunities for women's ?

  - Yes
  - No

- The fish processing industry contribute to the economic empowerment of women ?

  - Yes
  - No

- If any economic benefits for women's in this industry ?

  - Yes
  - No

- If value addition is important for Industries economic growth ?

- Yes
- No

- How important value addition is for the fish processing industry ?

  - Highly important
  - Important
  - Somewhat important
  - Not important

- If value added products have good demand in the economy ?

  - Yes
  - No

- Does value addition increase the profitability of fish products?

  - Yes
  - No

- What are the major value added fish products ?

  - Fish pickle
  - Fish fillets
  - Dried fish
  - Salted fish
  - Prawns fish product
  - Squid fish product

- What are the average processing cost of last month ?

- What are the average processing revenue of last month ?