

## **THE VALUE- ADDED SHRIMP- THE WAY FORWARD FOR THE INDIAN SHRIMP INDUSTRY TO SUSTAIN THE COMPETITION IN THE GLOBAL MARKET – PERSPECTIVE REVIEW**

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### **ABSTRACT**

Shrimp farming has been a huge success story for India from 2011 to 2018. With this success story, India has become the second largest farmed shrimp producer in the world after China. However, India is still facing increasing challenges in the global market with three market forces namely limited valued added processing capabilities, lack of traceability and low productivity. Most of the shrimp in India undergo basic processing and are sold to other countries for further value -added processing and reexports. The value- added shrimp products can be an innovative product like natural bonded shrimp, a new package, eco- labelling, a new cut, ready to eat, ready to cook, ready to fry, thaw and eat, heat and serve, etc with multiple formats, shapes, dimensions and flavour. There is also an increasing demand for valued added shrimp in the global markets. The value added- shrimp products are more profitable with better realization of foreign exchange earnings and high unit value. The Earnings Before Interest and Taxes (EBIT) for frozen shrimp with minimum processing is about 8%, whereas value-added processed shrimp's EBIT margins are around 20%. India's limited value-added processing capabilities are losing this revenue opportunity. This lost revenue opportunity limits the industry's overall profits. India needs shift to value-added products to tap into new markets, build even stronger competitive position and become a leader in the global market. If India's processors are ready to upgrade their processing facilities to provide value-added shrimp products in the global market, they will definitely achieve higher sales prices for shrimp. If India wants to secure shrimp Industry's future in the global market, India requires a transformation to focus on developing an innovative business model of developing value-added processing capabilities to supply value added shrimp products to achieve improved economics and sustainability.

This paper studies on value added shrimp products, the future for the Indian shrimp Industry to sustain the competition in the global market and provides a perspective review.

**Keywords: Shrimp Farming, Value-added shrimp, Earnings before Interest and Taxes, Improved Economics and Sustainability.**

### **1. INTRODUCTION**

India's shrimp industry is currently in a strong competitive position in the global market. Most of the shrimp in India undergo basic processing and sold to other countries for additional value-added processing and re-exports. There is approximately 30% of India's farmed-shrimp being exported to Vietnam for further processing. Value addition means employing processing methods, adding specialized ingredients, novel packaging to enhance the nutrition, sensory characteristics, shelf life and convenience to shrimp products with innovation, differentiation and better marketing. In short, value addition means any additional activity that in one way or other, changes the nature of the product thus adding to its value at the time of sale. The basic benefits of value addition as far as shrimp is concerned include functional and emotional benefits related to quality and nutrition, convenience in preparation and high sensory appeal at a cost. Thus, Indian Shrimp Industry requires processing of shrimp into a wide variety of valued-added products to meet the increasing demand for shrimp products that are ready to eat or require little preparation before serving, changing consumer life-style requirements and to provide greater convenience to consumers in the global market. Value-added processing is a profitable business, but India's capacity is limited.

## **2. LITERATURE REVIEW**

### **VALUE ADDITION – THE FUTURE FOR THE INDIAN SHRIMP INDUSTRY**

Value addition is defined as any activity along the supply chain that increases the usability, culinary attribute or economic viability of a food item. Processing of shrimp into a wide variety of value-added products is now becoming common with the increase in demand for food products that are ready-to-eat or require little preparation before serving in Western countries. Usually, value added shrimp products are perceived to be those that have added ingredients such as a coating (breaded/battered) or a sauce, are prepared neatly or in some way provide more convenience to the user. Actually, it indicates a measure of factors added to the total worth of a product at each stage of the production. The four major reasons for value addition are; (i) for higher profit, (ii) for improved processing utilization (iii) to keep pace with consumers' (iv) to provide variety of products. There are numerous varieties of value-added shrimp and they differ widely from one another depending on the shapes, size, flavours, texture etc.

Marketing of value-added shrimp is completely different from the traditional shrimp trade. It is dynamic, sensitive, complex and very expensive. Most of the traditional market channels used is not suitable to trade value-added shrimp. A new appropriate channel would be the supermarket chains which want to procure directly from the source of supply. Appearance, packaging and display are important factors leading to successful marketing of any new value-added product. The retail pack must be clean, crisp and clear and make the contents appear attractive to the consumer. The customer must be given confidence to experiment with a new product launched in the market.

There are ample opportunities for value addition and product development especially Ready-To Eat/Ready-To- Cook (RTE/RTC) products for the domestic as well as export market. This definitely offers attractive opportunities for seafood processors. Over the years, consumer demand has been changed into more convenient on-the-go products, having superior nutritional

value. Undoubtedly, in the long run, technology up-gradation will continue to remain as the key element in value addition domain, supported by minimal processing options for maximum nutritional retention, innovative ideas of packaging, intelligent system for quality monitoring, etc. Out of the box thinking is required to have a solid effort to encourage value addition in the Indian shrimp Industry with the upgradation of capacity and efficiency of skilled labour force with the latest technology. Moreover, parallel developments should be reflected in Government policies and investor friendly incentives in order to make the industry globally competitive.

### **3. OBJECTIVES OF THE STUDY**

The major objectives of the study are

- To identify the major challenges of the Indian shrimp Industry.
- To study the reasons for the Indian shrimp Industry not competitive with Ecuador, Indonesia, Vietnam, China and Thailand.
- To find out reasons for limited value-adding processing capabilities in India.
- To identify the major shrimp varieties of value-added products possible from India for the global market supplies.
- To find out possible strategies of Indian shrimp industry to get better access to the global market.

### **4. DATA AND METHODOLOGY**

This study selected 50 MPEDA registered Indian companies of manufacturer exporter using the Random Sampling Method. A structured questionnaire was designed to carry out this research work. Out of these 50 companies, 20 companies are from Andhra Pradesh, being the largest shrimp producing and exporting State in India, 5 companies each are from West Bengal, Gujarat, Odisha, Tamil Nadu and Maharashtra and 5 companies are from rest of India. The size of the sample is 7% of MPEDA (The Marine Products Export Development Authority) registered manufacturer exporters of India. Several discussions and informal meetings were held with various industry stakeholders of the Indian Shrimp Industry of the above States before designing and finalizing the questionnaire. The data for this research study are gathered from primary and secondary data. The secondary data are collected from journals, research articles, government publications, books, etc whereas the primary data is collected from the structured questionnaire and interview.

### **5. RESULTS & RECOMMENDATIONS**

The research findings are broadly based on questions connected to the importance of the value-adding process and factors contributing to the model and challenges and possible strategies for the industry to get access to the global market. Value can be added to shrimp products according to the requirements of the different markets. Protein-rich convenience foods is the main outcome of the value addition. As value-added shrimp are high value products, the economic activity can offer good dividend to everyone in the

production and distribution network. Value-added products meet changing consumer life-style requirements, offers better utilization, provides greater convenience to consumer through

decreasing preparation time and minimizing preparation steps. Value-added shrimp come under the category of ready-to-eat or ready-to-cook value added products possessing good taste and health benefits. Due to demographic and economic changes, there is an increasing demand for value-added shrimp from the global market. Indian shrimp producers and exporters need to aim to satisfying the global demand of value-added shrimp products with product development and differentiation. Indian shrimp Industry needs to give a positive assurance to the global market that value-added shrimp products is safe, tasty, easy and quick to prepare, light in calories, easy to digest and nutritive.



**5.1 IMPORTANCE OF THE VALUE- ADDING PROCESS AND FACTORS  
CONTRIBUTING TO THE MODEL**

S. No.	Answer Choice	No. of Respondents	%
1	Indian shrimp Industry is not competitive with Ecuador, Indonesia, Vietnam, China and Thailand due to lack of skilled labour force for the value -adding process.	50	100
2	Shortage of skilled labourers & Less support from the Government are main reasons for not having value-adding processing facilities by major exporters in India	42	84
3	Breaded & Battered Shrimp, Marinated Shrimp, Skewered Shrimp, Stretched Shrimp (Nobashi), Shrimp Spring Roll and Blanched/Cooked Shrimp are value-added- shrimp varieties identified by the exporters in India	50	100
4	Indian Shrimp Industry is losing revenue opportunity due to limited value-added shrimp products supply to the global market.	31	62
5	Earnings before interest and Taxes for value-added shrimp products is 20%.	39	78
6	Earnings before interest and Taxes for minimum processed shrimp is about 8%.	37	74
7	In spite of increasing demand for value-added shrimp in the global market, the volume is not same as basic processed frozen shrimp volume.	34	68
8	Value added- shrimp require stringent quality and safety assurance programs throughout processing and distribution chain.	50	100
9	India will benefit with job creation and higher economic activity if value-added shrimp processing activities take place in India rather than importing country.	38	76
10	Production, Sales and Distribution of value-added products to the global market does not require large economic resources for marketing and promotion	38	76
11	Value-added shrimp are marketed in big food chains and department stores in the global market.	50	100

Table -5.1 shows that Lack of skilled labour force is the key reason for the Indian shrimp industry being not competitive with Ecuador, Indonesia, Vietnam, China and Thailand for the value -adding process with 100% respondents. Shortage of skilled labourers and less support from the Government are main reasons for many Indian shrimp exporters not having value-adding processing facilities with 84% respondents. Breaded & Battered shrimp, Marinated Shrimp, Skewered shrimp, Stretched Shrimp (Nobashi), Shrimp

spring roll and Blanched/Cooked shrimp are possible value-added shrimp varieties identified by Indian shrimp exporters for exports with 100% respondents. The Earnings before interest and taxes for value-added shrimp products is 20% with 78% respondents whereas the Earnings before interest and taxes for minimum processed shrimp is about 8% with 74% respondents. In spite of increasing demand for value-added shrimp in the global market, the volume is not same

as basic processed frozen shrimp volume with 68% respondents. Value added-shrimp require stringent quality and safety assurance programs throughout processing and distribution chain with 100% respondents. India will benefit with job creation and higher economic activity if value-added shrimp processing activities take place in India rather than importing country with 76% respondents. Production, Sales and Distribution of value-added products to the global market does not require large economic resources for marketing and promotion with 76% respondents. Value-added shrimp are marketed in big food chains and department stores in the global market with 100% respondents.

## 5.2 CHALLENGES AND POSSIBLE STRATEGIES FOR THE INDIAN SHRIMP INDUSTRY TO GET ACCESS TO THE GLOBAL MARKET

S. No.	Answer Choice	No. of Respondents	%
1	Limited value-added processing capabilities, Low productivity and Lack of Traceability are the challenges of the Indian shrimp Industry to get better access to the global market.	30	60
2	India needs to shift to value-added shrimp products to achieve higher sales prices for shrimp in the global market.	50	100
3	Marketing of value-added shrimp products is completely different from traditional marketing of raw frozen shrimp in the global market.	39	78
4	India exports mainly raw frozen shrimp products and only very limited quantities of value-added shrimp products to the global market.	50	100
5	India is unable to extract full benefits from their aquatic resources due to very limited value-added shrimp processing and exports to the global market.	37	74
6	India requires technology upgradation and modernization to be a processor of high -quality value-added shrimp products to compete in the global market.	50	100
7	Quality Assurance is the most important factor in the success of value-added production and export to the global market.	50	100
8	Well educated, trained and skilled labour force help overall performance of the modern seafood processing units in India to compete in the global market with high quality value-added shrimp products.	44	88
9	India requires joint ventures in processing and marketing to supply value-added shrimp products to the global market to achieve improved economics and sustainability.	41	82

**Total No. of Respondents**

**50**

Table-5.2 shows that Limited value-added processing capabilities, Low Productivity and Lack of traceability are major challenges of the Indian shrimp Industry to get better access to the global market with 60% respondents. India needs to shift to value-added shrimp products to achieve higher sales prices for shrimp in the global market with 100% respondents. Marketing of value-added shrimp products is completely different from traditional marketing of raw frozen shrimp in the global market with 78% respondents. India exports mainly minimum processed frozen shrimp and only very limited quantities of value-added shrimp products to the global market with 100% respondents. India is unable to extract full benefits from their aquatic resources due to very limited value-added shrimp processing and exports to the global market with 74% respondents.

India requires technology upgradation and modernization to be a processor of high-quality value-added shrimp products to compete in the global market with 100% respondents. Quality Assurance is the most important factor in the success of value-added production and export to the global market with 100% respondents. Well educated, trained and skilled labour force help overall performance of the modern seafood processing units in India to compete in the global market with high quality value-added shrimp products with 88% respondents. India requires joint ventures in processing and marketing to supply value-added shrimp products to the global market to achieve improved economics and sustainability with 82% respondents.

## RECOMMENDATIONS

The recommendations of this research study are:

1. India needs to focus on developing the skills of labour force to compete with Ecuador, Indonesia, Vietnam, China and Thailand for supplying value-added shrimp to the global market.
2. India needs to go for value-added shrimp processing and exports if the shrimp industry wants to increase their revenue namely EBIT to 20% from value-added shrimp exports.
3. In order to sustain India's current competitive position in the global market and to become a market leader, India need to have stringent quality and safety programs throughout the processing and distribution chain for value-added shrimp.
4. In order to get full benefits with job creation and higher economic activity, India needs to increase value-added shrimp processing in India rather than making the importing countries to get all benefits.
5. Increased Processing and exports of value-added shrimp from India will give better access to the Indian shrimp industry in the global market.
6. In order to achieve higher sales prices for shrimp in the global market, India needs to shift to value-added shrimp processing and exports with product development and differentiation to extract full benefits from India's aquatic resources.
7. India requires technology upgradation and modernization with stringent quality assurance programs to process and exports high quality value-added shrimp to the global market to get good dividend.
8. India also requires well educated, trained and skilled labour force for competitive processing and exports of value-added shrimp.

9. Indian shrimp industry needs joint ventures in processing and marketing of value-added shrimp products to achieve improved economics, sustainability and leadership position in the global market.

## 6. CONCLUSION

Value-added shrimp products are more profitable, but India has very limited value-added processors. India needs to diversify its focus from minimum processed shrimp into value-added shrimp products. The Indian shrimp Industry requires to update and adopt latest processing technology to develop and value-added shrimp in the global market. As the international demand for Indian shrimp is high and the potential for growth is also excellent, Indian processors must quickly make transition to offer consistent availability and quality as well as more novel value-added shrimp, convenient products to the global market to maintain its leading position and to become competitive. The Indian mindset has to change from focussing on basic shrimp processing of large quantities of frozen shrimp to value-added shrimp processing and exports. In other words, India needs to look beyond short-term and immediate gains and focus on developing an innovative business model on long-term with value-added shrimp products of inclusive sustainability. This will also help existing Indian exporters to expand with novel value-added products and encourage new entrepreneurship ventures. By doing this, India can meet increasing consumer expectations of wholesomeness, sustainability and responsibility of shrimp business in the global market. This will also make a way forward for creating the demand for value-added shrimp products in the domestic market.

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