

MARKETING AND TRADE ANALYSIS OF SHRIMP IN GLOBAL SCENARIO: SYSTEMATIC REVIEW

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Abstract

The global shrimp market size was estimated at USD 68.40 billion in 2022 and is projected to grow at a compound annual growth rate (CAGR) of 5.5% from 2023 to 2030. Shrimp is considered a low-fat, high-protein alternative to other meats, which makes it a popular choice. The global demand for seafood, including shrimp, is rising due to changing dietary preferences and increasing health consciousness among consumers. In addition, consumer awareness about the health benefits of consuming seafood, particularly shrimp, has increased. Shrimp is a source of essential nutrients like omega-3 fatty acids and is perceived as a healthier protein option, thus contributing to the market growth. Shrimp alludes to an invertebrate marine creature with a stretched body which is frequently utilized as a food item. It is viewed as nutritious since it contains proteins, selenium, cancer prevention agents, phosphorus, magnesium, copper, iron, and nutrient B12. A portion of the medical advantages related to shrimp utilization incorporates weight reduction, battling maturing, improving bone wellbeing, diminishing feminine agony, and forestalling cardiovascular infections. In the Global scenario, fisheries speak to a huge financial movement and offer immense development openings. This is because of the nation's different assets and possibilities. Simple accessibility of shrimp and their high dietary substance speak to the significant development of inciting factors. They structure a significant piece of different cooking styles being one of the most exchanged fish species. With the ascent sought after for illness-free and sound shrimps, Asian countries have gotten one of the biggest shrimp exporters to the US and the European Union. One of the key patterns saw in the global market is the extension of the food business attributable to the rising interest for prepared-to-eat food items. This survey and review report is an absolute necessity read for business people, financial specialists, scientists, advisors, business tacticians, and each one of the individuals who have any sort of stake or are intending to invasion into the shrimp business in any way.

Keywords: Marketing and Trade of Shrimp, Analysis of Shrimp Marketing, Survey of Global Shrimp Marketing, Systematical Analysis of Shrimp Business, The Shrimp Industry.

I. INTRODUCTION

Chamberlain, G. W. (1997) Shrimp is generally mainstream among the customary ocean nourishments over the globe. As indicated by NCBI, the muscle of shrimp contains an enormous extent of minerals just like proteins, and low in fats. Aside from this, the lipids of shrimp show chemo-preventive and chemo-defensive highlights. Having a place with the biggest class of crustaceans called Malacostraca, they have a horizontally compacted and stretched body with long radio wires and legs. They can be found in both shallow and profound water just as in freshwater lakes and streams. They are a rich wellspring of calcium, iodine, nutrient D, nutrient B3, zinc, protein, and omega-3 unsaturated fats however low in immersed

fats. They give various medical advantages, for example, improving bone and cerebrum wellbeing, supporting weight reduction, lessening the dangers of cardiovascular illness, calming eye weariness, and bringing down circulatory strain which has prompted an ascent in their general interest over the globe. As per the specialist Group, the market is relied upon to observe moderate development during the following five years.

This is upheld by powers, for example, fast urbanization, evolving ways of life, furious work routines, and expanding working ladies populace. Subsequently, the shrimp market in India is seeing a sound development. What's more, rising interest for shrimp worldwide has emphatically impacted shrimp imports from India. Additionally, expanding wellbeing awareness among customers, heightening expendable earnings, and improving ways of life stay a portion of the other central point which are further enlarging the interest for shrimps. Looking forward, specialists expect the Indian shrimp market to show moderate development during 2020-2025.

This reaches from a large scale outline of the market to miniature subtleties of the business execution, ongoing patterns, key market drivers and difficulties, SWOT examination, the effect of full scale and miniature climate, esteem chain investigation, and so on. This report additionally gives a complete investigation into setting up a shrimp handling plant. The examination investigates the handling and assembling necessities, project cost, project subsidizing, project financial matters, anticipated rates of profitability, net revenues; and so on this survey report gives a profound knowledge into the worldwide shrimp industry covering all its essential objects.

The surge in the market in the Asia Pacific zone over the forecast timetable is attributable to the huge scope of shrimp production in nations like China. Furthermore, flourishing hydroponics exercises in India will significantly contribute to the provincial market extension throughout the next few years. Moreover, nations like China, Thailand, and India are the main exporters and producers of shrimps. Very few studies have been conducted to evaluate the shrimp global marketing costs of using the natural domestic resource to develop shrimp aquaculture and the consequences to foreign exchange earnings.

This study meets this need by systematic review of global marketing scenario among the shrimp industry to develop a comprehensive profile of the comparative advantage of the global market in producing and exporting shrimp.

The specific objectives of the study are:

- To examine the consumption of cultured shrimps in total shrimp exports
- To estimate the growth trends of the shrimp industry among global scenario
- To study and analyze global shrimp market dynamics and segments
- To analyze the export competitiveness of the global shrimp industry in the world market
- To examine the shrimp marketing margin, production among global scenario

II. LITERATURE REVIEW

Lem, A. (2007) studied the section presents a review of shrimp production and exchange. It doesn't give a definite examination of individual providing nations or markets however expect to fill in as a foundation record on the current circumstance in world shrimp exchange.

Tran, H. T. T. (2012) explained the overall target of this survey is to research the cooperation's between existing state and non-state entertainers and organizations overseeing the shrimp business to build up a more educated agreement regarding how the state, market and network-based administration plans at various levels impact dynamic in shrimp hydroponics in beachfront regions of the Mekong Delta of Vietnam. The postulation featured the changes of Vietnamese shrimp hydroponics strategy and examined the administrative difficulties of ensuring natural shrimp creation. It additionally investigated the turn of events and part of helpful shrimp hydroponics and the advancement of incorporated shrimp-mangrove cultivating frameworks for timberland the board. The effect of administration for practical and naturally adjusted cultivating in Vietnam is talked about.

Lucien-Brun, H. (2011) studied in spite of rising costs and the fall of the euro, European shrimp imports have kept on developing. In Spain, merchants move rapidly from source to source following shrimp costs. New cookers have mistaken the market for an overcapacity of cooked items. In France, which requires quality crude shrimp for its famous cooked items, merchants work chiefly with providers in the Western Hemisphere, even though India is the second-biggest provider? Tropical shrimp are currently entering the U.K. as a worth-added item. The greater part of Germany's general store chains presently conveys shrimp, so its imports proceed on the ascent in 2010.

Debaere, P. (2010) revealed it is an entrenched hypothetical outcome that the exchange strategy of an enormous nation can straightforwardly influence its own and other nations' government aides by influencing worldwide products' costs. In any case, there exist not many experimental examinations that investigate the impact of exchange strategy on worldwide costs. With definite information on unit esteems and duties, I show how strategy activities in Europe disturbed the worldwide shrimp market in a non-insignificant manner and set up for the counter unloading case in the United States. The deficiency of Thailand's special exchange status in Europe and the worldwide contrasts in sanitation principles during the anti-microbials emergency moved particularly Thai, Vietnamese, and Chinese shrimp sends out away from Europe toward the United States in the last part of the 1990s and mid-2000s. I report how those moving business sectors have diminished US costs for shrimp altogether contrasted with those in Europe.

Cai, J., & Leung, P. (2007). This study builds up a deliberate methodology for near fare execution appraisal and applies it to assess significant shrimp cultivating nations' dynamic presentation in three significant worldwide frozen refined shrimp send out business sectors between the mid-1990s and the mid-2000s.

(Nhuong, T. et al 2010) Utilizing the global value chain (GVC) system, we examine the association and administration of shrimp GVCs in Vietnam. We inspect the effect of sanitation the executives frameworks set up by open and private entertainers in the modern North on shrimp makers, go-between merchants, processors, and exporters in Vietnam. Shrimp GVCs in Vietnam are coordinated as purchaser driven chains and progressively create and change through time and spot to produce numerous administering designs between progressive entertainers taking an interest in shrimp chains. Sanitation foundations, socio-social factors just as natural conditions both make opportunities and compel association and administration of shrimp GVC for reacting to global shrimp market necessities.

(Ling, B. H., et al., 1999) The innovative advances of Asian shrimp cultivating frameworks have not just added to a quick extension of Asian shrimp culture, yet have additionally made more noteworthy open doors for unfamiliar trade income during the 1980s and 1990s. Latest things, notwithstanding, demonstrate fundamentally expanded rivalry in world shrimp markets with numerous Asian nations starting or growing shrimp culture. Oversupply of refined shrimp items in the worldwide market has just happened in the mid-1990s. Thus, market costs of shrimp have dropped and net revenues have been just barely gotten by trade markets. The reason for this examination is to gauge the level of a similar bit of leeway of Asian refined shrimp nations in delivering and trading shrimp to Japan, the US, and the EU (European Union) in 1994. To start with, cost examinations of Asian shrimp cultivating innovations utilizing escalated, semi-concentrated and broad frameworks among Thailand, Indonesia, Philippines, Malaysia, Viet Nam, India, Bangladesh, Sri Lanka, China, and Taiwan are talked about. Next is an investigation of a relatively favorable position utilizing the homegrown asset cost technique, accepting into account open door expenses of info factors, yet additionally the unfamiliar conversion scale and the cost of shrimp in the unfamiliar market. Results show that essentially all Asian shrimp makers have a more noteworthy relative bit of leeway in sending out shrimp to Japan than to the US and the EU markets, to a great extent due to the top-notch shrimp costs got in the Japanese market. Additionally, Thailand, Indonesia, and Sri Lanka have more grounded near bit of leeway comparative with the other Asian nations considered. Then again, with high information costs, Bangladesh has a near burden in trading shrimp to the EU and US markets.

(Nielsen, M., et al., 2018) Ongoing exploration has discovered that markets for cultivated shrimp and wild-got northern shrimp in Europe are incorporated, demonstrating that northern shrimp costs are influenced by absolute flexibility and request of shrimp. In this way, the proceeded with the development of worldwide hydroponics creation and related value decay influence northern shrimp fisheries. In this paper, value transmission in the transoceanic northern shrimp esteem chain is dissected utilizing a Vector Auto Regressive model in Error Correction structure. Co-integration, the LOP and powerless exogeneity are tried. The outcomes uncover linkages from Greenlandic and Canadian fares, by means of Denmark to the last buyers in Denmark and the United Kingdom. The LOP was dismissed in all cases. Consequently, value transmission exists, yet it is blemished. Stripped shrimp is additionally discovered to be liable to downstream market authority, while drive reaction capacities distinguish blended reactions, with downstream market administration being the predominant

trademark. Development in shrimp hydroponics, *ceteris paribus*, squeezes northern shrimp anglers, the Greenlandic economy, and nearby economies at Newfoundland through value decreases. In that capacity, fisheries and their administration should ceaselessly improve productivity to remain serious.

III. ANALYSIS OF GLOBAL MARKET SHRIMP CONSUMPTION

(Johnston, D., et al., 2002) The global market has been seeing positive development as makers are adding a few worth-added items to their product offerings. These items are picking up prominence in a few nations, for example, the United States, Europe, and Japan which has helped in growing the purchaser base.

IMARC Group. (2020) Shrimp consumption has been developing constantly, particularly in nations like India and China, by virtue of rising coordinated retail chains over the district. Moreover, since the interest for fish items is pay versatile, a persistent expansion in the number of buyers with higher dispensable wages is relied upon to positively affect the development of the market.

The governments of major developing countries have recognized the seafood industry as a high need sector and are presently advancing it with a few monetary reliefs and motivating forces. For example, government bodies in India, for example, MPEDA (Marine Products Exports Development Authority), are supporting shrimp culture through a bunch cultivating approach. Comparable activities are additionally being taken in Vietnam, Thailand, and China which are relied upon to draw in new speculators to the business.

(Johnston, D., et al 2002) The market has generally been a fare arranged market in undiscovered business sectors, for example, India, with just a little portion of the absolute creation devoured locally. Throughout the most recent couple of years, nonetheless, the homegrown market in these nations has begun thriving. The interest, which was fundamentally engaged in enormous urban areas until a couple of years back, is currently spreading to level II and level III urban communities, and the homegrown utilization is required to increment consistently throughout the following not many years.

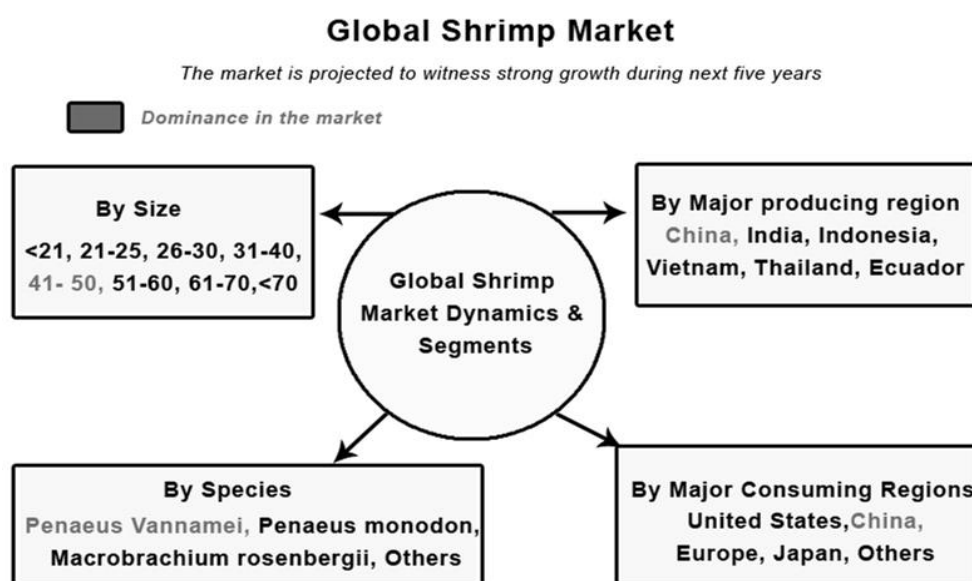


Figure 1: Global Shrimp Market Dynamics and Segments

Separation by Species: *Penaeus vannamei*, *Penaeus monodon*, *Macrobrachium rosenbergii*, Others. *Penaeus vannamei* is at present the most mainstream species. It is cultivated in various countries including the United States, Vietnam, Mexico, India, Brazil, China, and Thailand.

Separation by Size: <21, 21-25, 26-30, 31-40, 41-50, 51-60, 61-70 and <70. The size scope of 41-50 shows a reasonable strength in the market as they can be utilized in the readiness of a few dishes including pasta, blended fish dishes, tostadas, and tacos.

Provincial Insights: Major Producing Regions: China, India, Indonesia, Vietnam, Thailand, and Ecuador. China represents most of the creation by virtue of expanding government uphold for improving item quality and advancing reasonable cultivating rehearses.

Major Consuming Regions: US, China, Europe, Japan, Other Countries Based on utilization, China speaks to the biggest market as shrimp is a fundamental piece of Chinese food and is broadly utilized in noodle soup and bonnet (dumpling).

IV. GLOBAL SHRIMP PRODUCTION & MARKETING REVIEW

Table 1: Shrimp forming production by region

S. No	Country	Year	Production	Projected CAGR
1	Other	2010-2021	5.4%	Projected CAGR 2012-2017: 2.2% and 2017-2021: 5.4%
2	The Middle East/Northern Africa	2010-2021	5.3%	
3	Americas	2010-2021	4.9%	
4	India	2010-2021	3.9%	
5	China	2010-2021	3.6%	
6	Southeast Africa	2010-2021	1.7%	

From the above table 1 sums up the production estimates for global production from 2010 to 2021. The information from 2010 to 2017 speaks to a blend of FAO (Food and Agriculture Organization - 2019) and GOAL (Global Outlook for Aquaculture Leadership Survey 2011 to 2018) estimates, while 2018 to 2021 information has been received from the 2019 GOAL study.

In light of the past GOAL studies, the business gave indications of recuperation in 2016 and 2017, bringing about a CAGR of 2.2 percent for the period 2012 to 2017 – much lower than the 6.3 percent rate assessed by the Food and Agriculture Organization of the United Nations (FAO). Objective respondents revealed a flood underway in 2018 (+11 percent contrasted with 2017) and hope to see further development through 2021.

Table 2: Complete showcasing cost of stakeholders and go-betweens engaged with shrimp marketing (kg) in the domestic market

Cost Items	Shrimp Former	Stakeholder 1	Stakeholder 2	Stakeholder 3	Int-District Agent	Retailer	Total	% of Total
Transport, loading and unloading	1.40	3.37	0.00	1.76	3.70	1.71	11.94	32.33
Baskets	0.28	1.13	0.06	0.14	0.00	0.45	2.04	5.52
Icing and Ice Boxes	0.00	1.41	0.00	0.00	0.00	0.89	2.30	6.22
Payment and salaries	0.00	0.19	0.63	0.18	0.43	0.00	1.43	3.87
Stakeholder's cut	2.63	2.64	0.00	2.30	2.30	0.00	9.87	26.71
office rent	0.00	0.03	0.15	0.00	0.01	0.62	0.81	2.18
Security and House keeping	0.00	0.01	0.00	0.00	0.00	0.06	0.06	0.18
Electricity bill	0.00	0.12	0.00	0.00	0.15	0.15	0.42	1.11
Telephone bill	0.12	0.17	0.14	0.11	0.09	0.34	0.97	2.62
Personal Expenses	0.15	0.23	0.19	0.12	0.18	0.51	1.38	3.71
Tips and contributions	0.14	0.18	0.12	0.21	0.19	0.15	0.99	2.68
Wastages	0.15	0.00	0.00	0.00	0.58	0.00	0.74	1.98
Miscellaneous	1.33	0.82	0.50	0.25	0.56	0.56	4.02	10.89
Total	5.08 (13)	6.19 (16)	10.17 (27)	1.91 (5)	8.19 (14)	5.43 (22)	36.97 (100)	100.0

V. MARKETING MARGIN, PRODUCTIVITY AND COMPETENCE OF SHRIMP MARKETED

As per Islam, M., Haque, M., Rabbani, M., & Sharmin, S. (2016) marketing margin it might be said is the cost of all utility adding exercises and capacities that are performed by the intermediaries. A marketing margin is the level of the last weighted normal selling cost taken by each phase of the marketing chain. The margin must take care of the costs associated with moving produce starting with one phase then onto the next and give a sensible re-visitation of those doing the showcasing exercises. (Hossain, G., & Hossain, M. 2019). It is likewise named as value spread as it speaks to the contrast between the purchasing and selling cost. Absolute

showcasing edge is the contrast between the cost got by shrimp ranchers and the cost paid by the last customers.

Marketing margin and marketing cost are normally used to assess the benefit of go-betweens engaged with shrimp showcasing. Promoting margin at a specific phase of exchange is the contrast between deals cost and price tag while marketing benefit is the distinction between the showcasing edge and showcasing cost for every type of fish showcased. All out marketing margin is the contrast between the cost got by the maker and the cost paid by the purchaser. Promoting edge is the cost of adding exercises and capacities performed by delegates (McNeil, R. (2007).

Neighborhood utilization of shrimp is low in some Asian nations. In any case, thinking about its significance, advertising edge, and benefit in the homegrown market were resolved. In the vast majority of the cases, refined shrimp are provided straightforwardly to warehouse owners by stakeholders and individual ranchers and afterward, these are traded by sending out firms or offices.

VI. RECOMMENDATION

The government can set up a particular zone for shrimp cultivating with the enlistment number of each venture and give essential offices to those homesteads. Consequently, discernibility can be guaranteed moreover. Each stakeholder and partner ought to give an enlistment number and requested them to keep the record from each exchange to actualize the detectability framework. Shrimp production ventures or shrimp maker some time face heaps of risk like infection issues, raising the cost of shrimp feed, characteristic disasters, falling of shrimp cost and so on So Government should impart the risk to them to guarantee the profitability of the shrimp industry. The exporter of Asian countries can make a brand stressing the natural nature of their shrimp which can guarantee more exorbitant cost for those marked shrimp. Shrimp transportation should be encouraged with current offices like protected and refrigerated transporter van and treatment of shrimp with food evaluated plastic bushel.

VII. CONCLUSION

Generally, consumer preference and product differentiation that characterizes the shrimp import markets lead to price differentials across global markets. At any point of time, the relevant price of any country depends on the quality of shrimp produced for export as well as that consumed in-demand markets. Thus it is clear that India has a larger comparative advantage in exporting shrimp to Japan than to the USA and EU markets, largely because of the premium price in the Japanese market. The maintenance of protocol to assure qualify by the government or trade associations would be the best approach in the control of residues in seafood. In order to protect prawn farming from surges in imports and to enhance their competitiveness in the global market. It is necessary to reduce production costs, raise the productivity and quality of shrimp produce to international standards besides reducing post-harvest losses.

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