MANAGEMENT & BUSINESS STUDIES

Khulna University Studies 2(1): 227-238

VALUE CHAIN MANAGEMENT: A PROACTIVE STRATEGIC APPROACH TO GO SUCCESSFULLY IN THE INTERNATIONAL MARKET FOR THE SHRIMP PROCESSING INDUSTRY OF BANGLADESH

Mehedi Hasan Md. Hefzur Rahman*

Business Administration Discipline, Khulna University, Khulna 9208, Bangladesh

Manuscript received: August 08, 2000; Accepted: December 31, 2000

Abstract: This is a study of exploring a prospective strategy for Bangladesh shrimp processing industry with a view to meeting the challenges that have been posed in the international market by other foreign marketers in the same trade. Shrimp processing and export has been accepted as an industry for a very long time in the economy of Bangladesh. Due to its immense contribution to the economic development of the country, the industry has already exerted itself as the second largest sector after the garments industry. The EU, USA and Japan have the greatest potential for growth of market share for the Bangladesh shrimp industry. The shrimp processing industry and its total value network is beset by various problems. These problems have been piling up since the inception of the industry. Industry is suffering from lack of professional outlook and quality continuity which have not yet developed to capture the long-term business gain. Sufficient supply of shrimp fry and higher productivity per acre need to be ensured in collaboration with technical experts. Sharing the experiences and the strengths of different parties along the value-network of the industry need to be aligned, so as to work as an integrated single entity for the shared objectives. They have complementary resources and experiences and strengths, which are important to each other to be competitive in the international market. Shared Cultural Practice among the strategic partners is the single most important prerequisite to implement virtual integration through strategic alliance for successful value-chain management (VCM).

Key words: Value chain; Network structure; Core competence; Competitive advantage

Introduction

This is a study of exploring a prospective strategy for Bangladesh shrimp processing industry with a view to meeting the challenges that have been posed in the international market by other foreign marketers in the same trade. Shrimp processing and export has been accepted as an industry for a very long time in the economy of Bangladesh. Due to its immense contribution to the economic development of the country, the industry has already exerted itself as the second largest sector after the garments and NetWare industry. The foreign export earning in this sector was 343.82 million US$ in 1999-2000 financial year in comparison to 3.06 million US$ in 1972 (Bangladesh Export Promotion Bureau, Khulna). Now this sector is under fierce pressure from different competitors and

* Corresponding address: Tel.: 88-041-721791, 720171-3; Fax: 88-041-731244; E-mail: <ku@bdonline.com>

DOI: https://doi.org/10.53808/KUS.2000.2.1.227-238-mb

trade control agencies such as the EC. On the one hand, the external environment is being changed on a continuous basis and on the other hand, the stalemate condition of the internal environment puts the industry in awkward situation. This plight of this sector once again forces the concerned authorities to think long and hard about the possibly disastrous consequences for the further growth or even the very existence of the industry.

The second biggest contributor, in terms of foreign currency earnings, to the export trade of Bangladesh is "SHRIMP" (Fig. 1 and Table 1). Since the raw materials of "The Shrimp Processing Industry" are fully collected from own sources then the domestic value addition is 100%. This sector is enjoying full GSP facilities in the international trade. The shrimp culture and processing industry is almost fully initiated by private entrepreneurs. At present, the industry constitutes 104 processing factories, with a 680 MT. per day freezing capacity. Among the total number of factories, 58 units are located in the Khulna region and others are located into two other southern districts i.e. Chittagong and Cox's Bazaar. The major contribution to export is from Khulna. Bangladesh has plenty of fisheries resources due to its geographical location and environmental advantages. This resource should be strategically maneuvered to grab the competitive advantage in the international export market.

Table 1. Sector wise export performance (million US $).

Name of the Industries	1999-2000	1999-98	1995-96	1994-95
Garments	4352.39	4020.23	1948.81	1835.09
Jute and Jute goods	337.47	375.6	419.66	318.88
Shrimp	343.82	274.32	313.69	305.64
Tea	17.69	38.56	33.13	32.8
Leather	195.05	168.25	211.7	202.08

Source: The Annual Report of Bangladesh Export Promotion Bureau; 1997; Export Promotion Bureau, Khulna Branch.

A large number of rural people, mostly women, are involved along the supply chain of the shrimp industry. Shrimp is a delicate and perishable item; thus appropriate handling is required by the activators engaged in the pre and post harvesting activities. A large number of unemployed manpower can be engaged through long-term planning and training thereafter. Only the properly educated quality conscious workforce can significantly contribute to this long-term objective. The unemployment problem will partly be solved through plugging them into the main stream of the value network.

So a strategic guideline is needed for the Bangladesh Shrimp Processing Industry to underpin the present strategic advantages in the international export market against the erstwhile country competitors.

Problems in the Prevailing Business Process

The shrimp processing industry of Bangladesh and its total value network is beset by various problems. These problems have been piling up since the inception of the industry. In the recent past imposition of a ban on the import of Bangladeshi shrimp by the EU

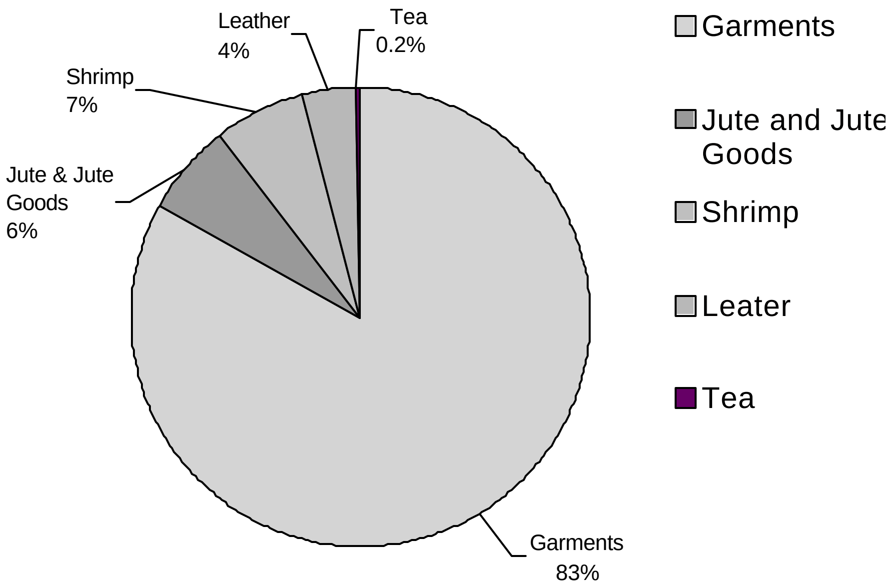

Fig. 1. Sector wise export performance of the major industries in the 1999-2000 fiscal year.

authority was a great warning for the industry. This imposition due to quality reasons not only happened in Bangladesh but also in India and Madagascar. According to one EU official in Dhaka, "we have been asking Bangladesh to improve its quality of shrimp processing since 1993 but they have paid little heed" (Financial Times, London, 1997). The EU is the single largest customer of the Bangladesh shrimp industry. The total EU import from Bangladesh was 111,617 million dollar in the FY 1995-96 with a slight increase over the corresponding FY 1994-95 (Bangladesh Export Promotion Bureau). The EU, USA and Japan have the greatest potential for the growth of market share of the Bangladesh shrimp industry. Factories in the industry have implemented the HACCP system, which was recommended by the potential importers for health quality management. That action helps them to get rid of the hurdles of the industry. Recently it has been viewed by the Exporters that container rejections have been reduced due to their corrective actions. So the health quality of shrimp is one of the basic problems of the industry. This action alone, however, is not enough to get required control on the internal market further down of the value chain and the international as well. If we delve into this issue further, we find that the root of the quality problem will go beyond the boundary of the existing factory processing activities. Besides lower productivity on per acre shrimp production is being pointed as a main problem of the industry. Lack of supply of the raw materials capacity of the industry is remaining unused.

So, with a view to retaining the competitive edge and growth in the long term, the following problems are to be resolved.

- The leaders of the industry and the authorities of the processing factories have to change their mentality. A professional outlook has not yet developed to capture the long-term business gain. Without any firm determination towards continuous development of core competencies, sustainable growth and development can never be achieved.
- Sufficient supply of shrimp fry and higher productivity per acre need to be ensured in collaboration with technical experts. Catching shrimp fry from natural source need to be stopped for further environmental degradation.
- The lack of quality consciousness and its importance among the processing workers, middlemen, fishermen and cultivators. In order to bring the commitment to the health quality of the shrimp, the people engaged in the supply network need standardized training or require the support of skilled manpower.
- A weak logistic support system to provide safer transport of frozen cargo is the crucial domestic problem of the industry. Every processor has acknowledged the absence of this support service. The shortage of ocean going vessels and the refrigerated container service causes the delay of shipments to the importers port.
- The excessive involvement of middle-entrepreneurs drives up the price of raw materials and lowers product quality. Loose control and weak partnership are the main problem in this regard.
- Insufficient physical and financial infrastructural facilities. This is due to the lack of road and other communications to the remote areas where the shrimps are actually landed. Processors have bitter experiences of inadequate supply of electricity, which eventually force up the price of the product, because of higher processing costs, and in certain circumstances product damage as well. Unreliable laboratory facilities to check health quality of shrimp was also one of the reasons behind the imposition of the EU ban. The industry is failing to take full advantage of technological advances in the area of Information Technology (IT). The financial institutions do not respond quickly enough to provide long and short-term loans to meet the infrastructural development and working capital requirements respectively.
- Inefficiency of the development of a dynamic marketing strategy is a problem for the industry leaders, and this is one of the probable causes of lagging behind the expected level of advancement. The industry does not have any formal monitoring system to watch the internal and external environmental changes that would be required to develop that strategy.
- Finally the lack of commitment of the political figures and government regime are the important impediment towards any implementation of project for the development of the industry. The unstable law and order situation of the country is also considered as detrimental factors to the smoother development of the industry.

The probable result of these problems is lower quality product at higher price and the likely consequences of these are loss of market share, even to the point of collapse.

So the objective of this study is to search for a better pathway by which the processors and the concerned government bodies will get an overall guideline to build a sustainable and competitive value-chain management for Bangladesh Shrimp Processing Industry.

Industry Analysis in The Face of Changes of International Market Scenario

Without a strategy a business can only perform in a reactive manner to the changes that are surrounding it. A proactive strategy will be required to reflect the anticipated changes in the international market environment. That strategy will not only be treated as a static theoretical document but also will contain productivity and export targets and ways of reacting to environmental changes during the stipulated planning period. The Bangladesh shrimp processing industry needs to develop a proactive strategic plan in order to fortify its international market position. By doing an extensive scanning of the external and internal environment of the Bangladesh Shrimp Processing Industry, a SWOT analysis has been done that will be helpful for selecting a effective strategy for the industry.

SWOT Analysis

Opportunities:

1. Improved communication system to build strong partnership with the prospective international buyers.

2. Cheaper cost of using Internet or Electronic data interchange (EDI).

3. Availability of qualified professional experts and graduates to recruit from local universities.

4. Conducive foreign direct investment policy of Bangladesh government.

5. Various incentives available from the government ministry of commerce for the 100% export oriented firm activities.

6. Higher demand of shrimp in the international market. International market is still considered a sellers market.

7. Availability of improved and state-of-the-art technology for shrimps processing, preservation and transportation.

8. WTO's agreement on the application of sanitary and phytosanitary measures. Because this agreement ensures the sovereign right to protect food safety, and that will be done on the basis of scientific data. Moreover it will ensure that these rights will never be used as a protection purposes.

10. WTO's the most favorite nation (MFN) clause could be a greater opportunity for Bangladesh shrimp industry if it was fully exploited. Because of the members of WTO are bound to provide to the products of other members tariff treatment no less favorable than that accorded to the products of any other member country. No country is to give special trading advantages to or discriminate against another, although certain prefacers for developing countries authorized.

Threats:

1. Imposition of excessive restriction on the export activities by the different controlling authorities like the EU in the name of quality maintenance.

2. WTO's agreement on agriculture limits the encouragement activities that could be taken by government bodies for the cultivators and the fishermen. There is a provision for curtailing the use of subsidies and other special treatment accorded domestic producers.

3. The shrimp industry of the country competitors has already started joint venture project to work as a vertically integrated partnership.
4. Well organized research and development (R&D) facilities and know how of high productive shrimp cultivation in competitors countries have pushed the industry more vulnerable in the international market.
5. Economic recession in the economy of the potential buyer country gives an ominous sign to the industry growth.
6. Strategic marketing plan and professional outlook of the entrepreneurs of the competitor country towards the expansion and consolidation of the market position.
7. Unreliable power supply and shortage of power generation in comparison to total demand of the industry increases cost of storing and decreases competitive advantage. Price per unit electricity is higher than the other neighboring countries.
8. Power, telecommunication and port facilities still remain under state owned monopoly business. Due to this state, the major services industry is being deprived of getting competitive services. A market dominated (perfectly competitive) environment is required in these sectors to ensure grater value for the customers.
9. Unstable political situation and over burden of government bureaucratic power structure and division making processes reduce the competitive advantages of the industry Value-chain.

Strength:

1. Better taste and flavor are identified by the customer as one of the core-competencies of Bangladesh Shrimp Industry. This feature differentiates the industry from other country competitors.
2. Large areas of suitable land have been brought under the shrimp cultivation activities supply. It improves opportunity of enhanced supply of raw materials.
3. Favorable weather condition and geographical location for shrimp cultivation helps industry growth.
4. Processors have long experience of shrimp trading in the international market.
5. Seaport with required facilities are available adjacent to the shrimp processing and cultivation areas of Khulna and Chittagong.
6. Some financial co-operations are available from the different financial institutions. Support of allied industries like packaging, are meaningfully developed to meet the challenge of market.

A positive result has come out from a previous study on a comparative analysis between Bangladesh shrimp and competitors product by the author of this article. [M.H.M.H Rahman; University of East London, London, 1999.] Better taste and flavor got the highest rank against the competitors. So this feature can be considered as a core competence of Bangladesh shrimp processing industry that has been delineated in the Fig. 2.

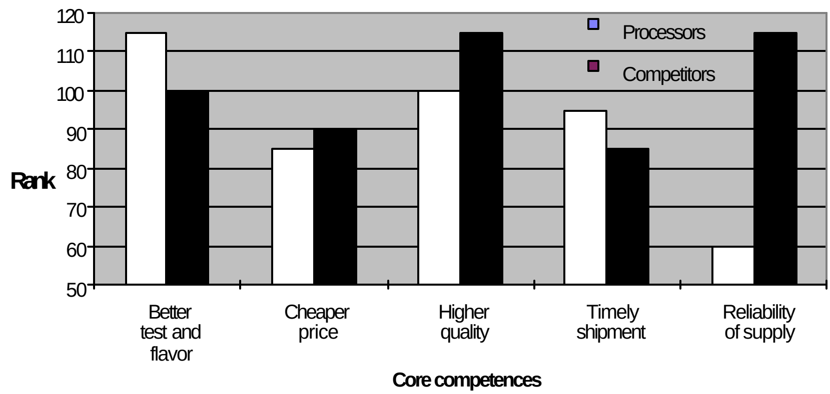

Fig. 2. A comparative analysis of core competences between the preocessors and competitors value-chain.

Weakness:

1. Poor facilities available to improve technical knowledge up to the mark. Without those facilities shrimp fry production in the hatchery and productivity per acre cannot be increased or go beyond the competitors level of standard.
2. Inadequate control and co-ordination between the processors and the backward activities of middlemen, cultivators and fishermen.
3. Lack of required communication and interaction for technology transfer among the different partners reduces opportunity for growth.
4. Insufficient trust and transparency in the export activities. Buyers do not rely on the processor's commitment. This reduces effectiveness and efficiency for forming and practicing strategic alliance along the industry value-chain.
5. Poor transportation and logistic facilities without due arrangement for temperature maintenance at required level. For that reason the quality of shrimp has dropped.
6. Scattered activities of the fishermen and cultivators reduce competitive strengths of the industry Value chain. Each fisherman and cultivator usually takes individual effort to reach to the processing plant with their supply.
7. Lack of professional attitude towards the long term marketing strategy, the industry has been facing an immense hurdle of developing a competitive Value-chain against the competitors Value-chain.

This industry analysis reavls that there are some strengths like best taste and flavor can be used as a weapon to offset upcoming threats in the environment. Value-chain Management from strategic point of view will well organize strategic partners to work more effectively and efficiently in the international market.

Value-chain Management is a strategic way forward for the Shrimp processing industry

"Today strategic relationships among organizations consider the elements of overall competitive strength--- technology, costs and marketing. Unlike the tactical relationships the effectiveness of these strategic agreements among companies can affect the long term performance of the business"[1] Due to sharing the experiences and the strengths of different parties along the value-network of the industry they need to be aligned, so as to work as an integrated single entity for the shared objectives. They have complementary resources and experiences and strengths, which are important to each other to be competitive in the market. On the one hand, the processors in the shrimp industry have got some connection in the international market, so the cultivators and fishermen need to keep themselves closer with the processors in order to sell their output. On the other hand processors are dependent on cultivators because of their experience and knowledge of cultivating shrimps. In the same way cultivators are dependent on the hatchery to get high yielding shrimp fry, hatcheries are dependent on research laboratories and researchers to get the best knowledge of hatching high yielding shrimp fry.

For that reasons stronger relationship between the suppliers and the buyers in the industry is highly desired in order to achieve some competitive advantages in the dynamic global export market. The commitment of the partners will enhance competitiveness, drive them to respond effectively to emergencies, and ensure continuous improvement on a daily basis. These qualities of competitiveness, responsiveness and continuous development will be reckoned in terms of cost, quality and delivery performance of the firm(s). In order to grab the advantages of cost, quality and delivery performance the concept of efficient value chain management is one of the most progressive strategic concerns. In an effort to remain flexible in the recent trends of this chaotic business environment most of the proactive export oriented and global firms are giving greater emphasis to virtual integration rather than vertical.

A sound partnership for a shared goal is required among all the activities of different stages along the same chain. Halliburton McGowen explains, "Supplier [and customer] partnerships create more value and competitive advantage than would have been possible by either the supplier or the customer [or us] standing alone"[2].

In order to materialize this partnership a reliable communication system is inevitably required. The existence of a good communication strategy among the different stages of the value chain might be able to bestow to the company its unique character in the market.

The term value chain considers the entire process from the start (raw material) to the end (final product for the consumers) regardless of which firm owns any particular value-adding step. It encompasses not only the supplier and the buyer but also the supplier's

[1] David W. Cravens, 1998. p.217.

[2] Rayport Jeffrey F., Harvard Business Review. Boston; Nov./Dec., 1995.

supplier and buyer's buyer. Information technology (IT) is vigorously contributing to a stronger relationship between them by providing a common platform for communication and interaction in the value chain. "Value chain management emphasizes linking your organization with others in the value chain to create extended enterprises far more agile than any one firm could ever be. These linkages go beyond traditional customer-supplier relationships to encompass shared planning, inventory, human resources, information technology systems and even corporate culture."[3]

So the two different firms are coordinating and sharing almost everything like a single entity although they are not under single ownership. The necessary information can be transmitted among the different functional stages with the help of fit communication strategy.

Recommended Strategy to Go Forward

In response to the present condition of the total business environment of the industry and the likely impact of the comprehended changes in future, virtual integration via strategic alliance with all strategic partners along the value-chain, has been suggested to face those challenges. The manintainance of the quality and inadequate supply because of lower productivity of shrimp cultivation have been indicated as a core problem of the industry. Due to the lack of co-ordination between the strategic partners, sharing of information, knowledge, technological know-how and some financial & physical resources those problems has been aggravated on a cumulative basis. Shrimp processors need to come forward to take over strategic leadership of VCMwith a view to salvage industries future prospect. The strategic leader (processors) need to implement a management philosophy of Value-Chain Management (VCM) that extends traditional intra-enterprise activities by integrating strategic partners together in pursuit of the shared goal of strengthening international market position by assuring quality and supply of shrimp supported by shared profit and advantages.

The Total Value Chain management of the Bangladesh shrimp processing industry should be encompassed with the discrete but complementary activities such as Cultivators, fishermen, middlemen, processors, hatchery, University based Research & Development, Financial institutions, concerned government bodies, shipping companies and the importers abroad. These activities can be grouped into core and supportive strategic partners. Delineation has been given in Fig. 3 and 4.

All strategic partners of the industry value-chain need to be inter-locked according to the recommended strategy of virtual integration through strategic alliances. In most cases there is vertical alignment but in some cases horizontal alliance is also required to get the better results of virtual integration along the value-chain of the industry. Insufficient measure to get the strategy implemented may result in failure.

---

[3] Brandt R. John, 1998.

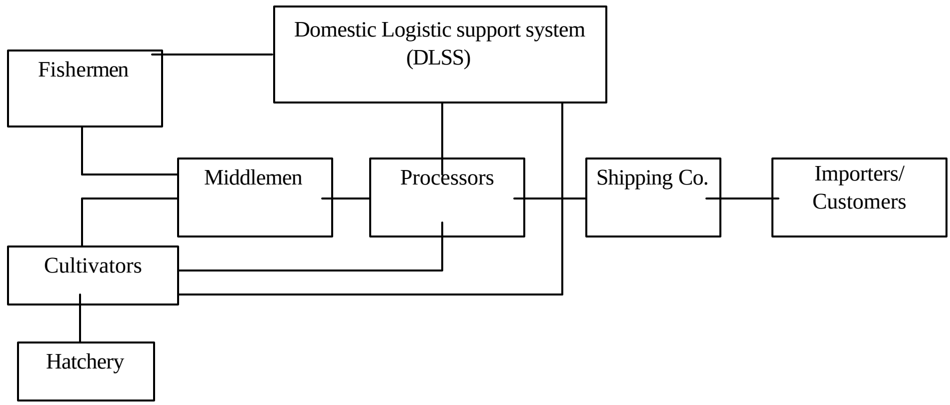

Fig. 3. Diagram for core strategic partners.

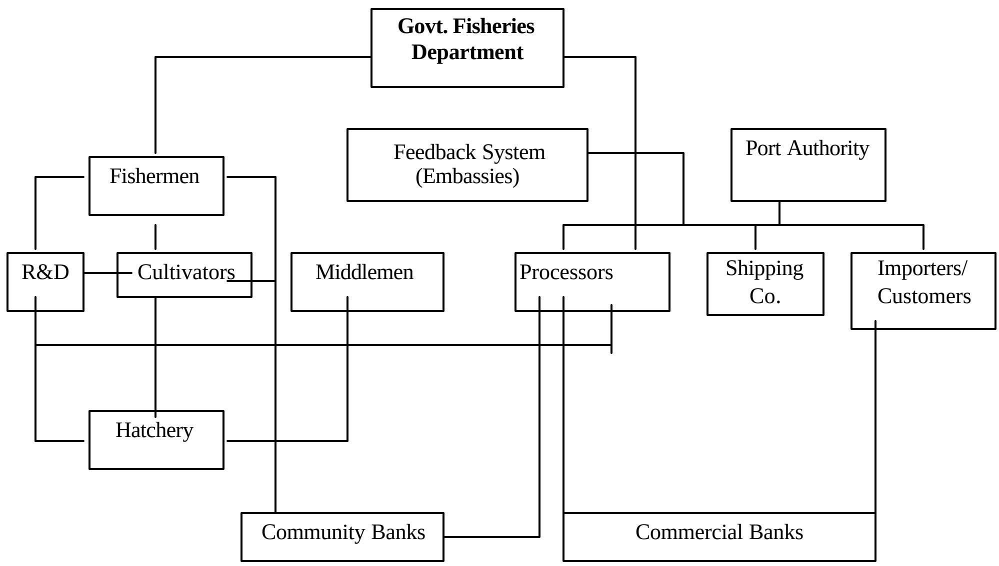

Figure 4. Diagram for the responsibilities of supportive strategic partners.

Network structure could be the best form of structure to build and maintain virtual relationship with the fishermen, cultivators, R&D, shipping company and the importers. "The network organisation and structure provides increased flexibility and adaptability to cope with rapid technological change and the shifting pattern of international trade and competition allows a company to concentrate on its distinctive competencies while gathering efficiencies from other firms who are concentrating their efforts in their areas of expertise."[4]

[4] Jarllo and Stevenson, Feb-1991.

The network organization increases flexibility and adaptability of the processors and at the same time it will provide certain advantage to the suppliers and the importers abroad. A depiction of the network structure of Bangladesh shrimp processing industry has been given in Fig. 5.

Proposed Network Structure for the Strategic Leader of the Value-Chain of Bangladesh Shrimp Processing Industry.

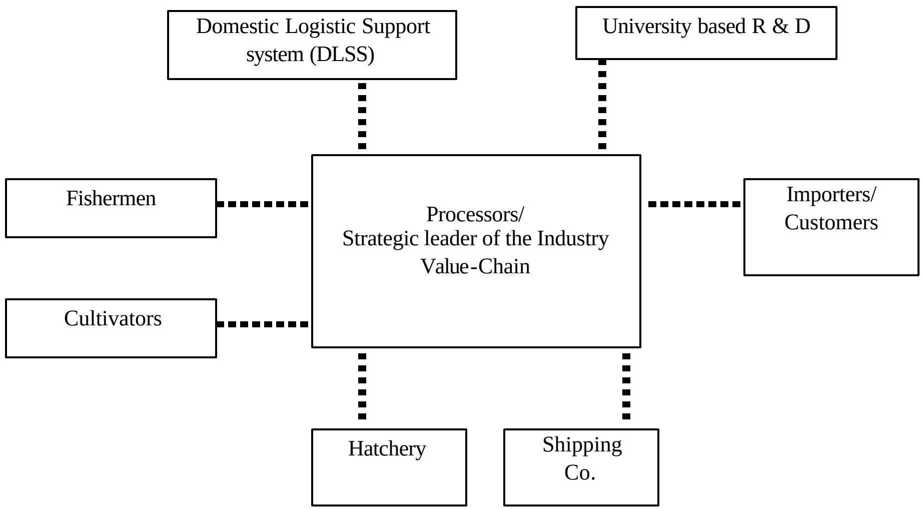

Fig. 5. The network structure of Bangladesh shrimp processing industry.

The strategic leader (processors) of the industry value-chain is to poise in the middle of all the activities of the different strategic partners and control them through monitoring their performances. We can divide the total value chain of the industry into two broad categories as upstream and downstream strategic partners. The upstream strategic partners would be the fishermen, cultivators, hatchery, domestic logistic support system and the shipping company. The R&D and importers would be the downstream strategic partner of the processors. Shared Value or Shared Cultural Practice among the strategic partners is the single most important prerequisite to implement virtual integration through strategic alliance for successful value-chain management.

Since different skills are required for the different but complementary activities of strategic partners and virtual integration via alliances (without owning other strategic activities) has been taken as a prescribed strategy, the strategic leader needs to build a cohesive force on the basis of flexibility and partnership. So team work is crucial for competing against the competitor's value-chain. Teamwork combined with the strategic partners is one of the main preconditions for successful virtual integration. “The teams may be multidisciplinary and adaptable to each situation. Power rests with the team, which may contain some experts to facilitate group decisions. Expert opinions are valued"[5].

Multidisciplinary team (processors, shipping company and importer) can effectively solve transnational shipment problems joining forces with the cultivators, fishermen, domestic logistics can solve the problems of higher raw materials price, quality deterioration during the transport and the lack of required knowledge for higher productivity of raw materials supply. University based Research and development work would be more effective for productivity development and better management than traditional one in that it is more of intellectually busied. But in all cases the need is to develop and practice a common cultural philosophy. This is the backbone of strategy implementation processes.

Conclusion

Demanding buyers, fast-moving technologies, intense global competition, deregulation and social changes are the main changing forces in the local and international market. These frequent changes in the business environment have been bringing opportunities as well as threats to the respective firms involve in the international market continually. Because of those challenges to management include escalation international competition, political and economic upheaval, the dominance of the customers and increasing market complexity, companies are drastically altering their business and marketing strategies. Shrimp processing industry is not out of those evolving challenges. Only value-chain management (VCM) could be treated as a panacea to offset threats and utilize opportunities evolving in the environment. VCM strategies will ease tasks of the leaders of the value-chain to take over a cohesive plan of actions to work as a team with a shared vision and goal. Concerted efforts of the members of the respective value-chain will keep them on the top of the customers' demand and move with fine-tuning with the business environmental changes. Bangladesh Shrimp Processing Industry, therefore, would be able to extend greater market share with stronger positioning in the international market if the value chain management (VCM) has been adopted from self-motivated strategic point of view.

References

Brand, R.J., 1998. Beyond the supply chain. *Industry Weak*, Cleveland, Nov. 2, 1998.

David, W.C., 1998. *Strategic Marketing*. 5th End., IREWN, p.217.

Jarllo and Stevenso, 1991. Co-operative strategies- the payoffs and the pitfalls. Long Range Planning, Feb., 1991, p. 67.

Lynch, R., 1997. Corporate Strategy. Pitmen Publishing, p. 283.

Rayport, J.F., 1995. Exploring the virtual value chain. *Harvard Business Review*, Boston, Nov./Dec., 1995.

[5] Lynch Rechard, 1997.