



Integration of Logistics Functions in Garment Export Manufacturing

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ABSTRACT

The Level of integration across the logistical functions and the manufacturing can affect the performance and efficiency. Author is focusing on the integration of the upstream logistic functions, production operations and the downstream logistic functions. A descriptive study based on the reviews and the secondary data available in as published were used. Information was gathered through interviews and interactions from the industrial experts. The practical implications are most of the services are to be outsourced from various providers at different levels of the operation, this makes the possibility of integration so difficult. Most of the operations are not well organized in each level and there is no standard operating mechanism. The originality of the research is to discover the real-time implications in functions and to design a framework for integration of logistics perfectly in export garment industry that can enable to deliver fullest efficiency.

KEY WORDS: *Integrated Logistics, Upstream integration, Downstream integration and RTD*

1. INTRODUCTION

The Global Apparel Market is expected to reach USD\$ 2007 billion in 2025 and India's contribution is to be 10% CAGR which is second largest contribution after China's 11% CAGR. India's share on Apparel and Textile Export is 4 % in Global Share says UN Comtrade and wazir analysis. The logistics Sector in India is making 14.5 % for India's GDP but its cost is 14 % of the GDP, the global average logistics cost is 8% on GDP for a country. This deviation evidently shows that the logistics functions have to be optimized and the manufacturing industry has to be perfectly blended.

1.1 INTEGRATED LOGISTICS

The integration of logistics is a key issue in the entire supply chain, the integration is not only necessary in the upstream of the suppliers but also in downstream with the distributors and the customers. This is an issue in the coordination and integration between the first mail and last mail connectivity. It is a collaborative effort and integrated planning of work to share the risk, mutual sharing of information, cross coordination of functions, operations in different levels of developing a product and delivering it to the customers. If this integration is achieved by framing a sophisticated system to view and rectify the issues, it will be helping to find the possible

alternatives to make decisions with the support of the information technology. Thus, any industry with such system will have possibility of high performance in their supply chain.

2. GARMENT EXPORT INDUSTRY AND LOGISTICS FUNCTIONS:

Garment industry is basically involved with a lot of process and when it comes to an export purchase order processing, the standard of quality expected in terms of product and the service is very high. The sourcing of materials and out-sourcing the interim services to execute an export purchase order is a tedious task. To have a fine flow from the upstream i.e., the procurement; they should start by defining the specifications as per the order, finding the right supplier and place an order with a contract to supply, to establish a routine and should expedite the routine. This could be sourced from various suppliers from various locations in various quantities, so managing the vendors with an integrated facility is more important. The system should be embedded with Just-In-Time process, EDI and transportation to meet the sourced materials on time in the production line. The effective processing of the order with quality can be achieved by optimizing the inbound and outbound logistics. If the inbound logistics is perfectly planned and implemented, then the rest of the factors can be taken care in the production end. The quality production is easily achievable, since it is an internal factor that can be contained. The outbound logistics is then distributing the manufactured goods to the customer, here the relationship between the buyer and the exporter by connecting through the logistics service providers in various stages in the export shipment.

3. Inbound Logistics:

Inbound logistics in export knitwear manufacturing involves, procurement of yarn or fabrics, trims, packing materials, stitching aids and other materials to process the specifications as per the order which were sourced from the overseas suppliers through import or from domestic suppliers to the manufacturers. The logistics commitment is to be met by maintaining the relationship between the vendors for seamless flow of materials to the plant. The role of logistics intermediaries in cross coordinating between the first mail and last mail partners.

4. Conversion/ Operations:

The integrations of logistical relationship between and among the production facilities in the manufacturing unit is focused. This is the flow of materials among the production lines within the operational system. The facilities like the in-factory store and dispatch of every unit from one process to another without time delay is important. The material management, inventory management, time management, information flow with the quality controlling mechanism has to be integrated till the packing of goods.

5. Outbound Logistics:

The finished goods are to be physically shipped to the customer. The integration is to be maintained among exporter, buyer and the logistics parties. This involves a process of connecting and coordinating across the intermediaries from the door step of the manufacturer till the goods reach the hands of the buyer's possession as finalized on the export contract. Here the integration of logistics will be highly challenging for the exporter since it goes as an external factor.

6. KEY ISSUES IN LOGISTICS INTEGRATION:

In the perspective of integrating logistics in the garment manufacturing, the controlling of various operations like managing the production capacity of the manufacturing firm is important. The flow of materials, information and the service delivery on time will be a core competent factor for quality management. The integration of the logistics in each factor demands the scientific concepts in implementation.

- **Inefficiency in practicing the related technological applications**
- **Lack of analytics**
- **Communication breaks**
- **Poor vendor management**
- **Technological implementations in partner's functions**
- **Integration of traditional logistics function in modern systems**
- **Lack of IT infrastructure in the manufacturing end.**

These are the key issues that has to be focused and implemented in the supply chain to integrate the manufacturing and the logistics for a seamless flow with an efficient performance.

The logistics must be integrated with manufacturing as an interlocking process which must be assessed by fixing a key performance index in each level to achieve quality.

6.1 Supplier Integration issue:

The process is to select a supplier for every material to process an Export purchase order, here there is no standard method or quality assessment of the service and relationship management indicator to select a right supplier. The poor credit situations, irresponsiveness, inventory management and delay in delivery and not communicating the exact progress are key issues that cause a disruption in the flow of supply chain. Overall, the transparency from the supplier end is very essential for integrating the entire process in the chain.

6.2 Operational Integration Issue:

The sourced materials are to be scheduled for production, here the execution of production plan is the task of production and quality control department in a garment manufacturing unit. The internal integration has to be done along with the production logistics, like planning the production lineup, managing the internal logistics by handling the materials, storage process, assembling the finished goods from the different production lines, preparing the packing process, labeling, quality check and packaging. Finally marking the serials for identification of the goods i.e., preparing the packing list document for the export clearance during the physical examination in the customs. All these processes have to be integrated under a single interface for a production manager to ensure the seamless flow of materials from one stage to another stage without missing any component or process and without any time delay to meet the export shipment On-time. The lead time management must be maintained by sharing the information and help the functioning to flow without any deviations and interruptions.

6.3 Downstream Integration issues:

When it comes to the downstream integration, the entire supply chain members have to share the information, knowledge, resources and competencies for strengthening the integration linked by logistics. The relationship between the supply chain members and the logistics service providers [LSPs'] are efficient when they are naturally blended by understanding the specifications of the export order for perfect distribution.

The LSPs' has to be strategically collaborated with the client to integrate the process in the intra and inter-organizational functions.

Unfortunately, the expectation is very hard to achieve in the downstream, since the resource, services and the operational mechanism is not specifically designed for the client's nature of operation and the order processing ways. The client has to adapt and coordinate with the existing processing mechanism of the LSPs'. Since the services are outsourced from various logistic intermediaries the client may not have the option to customize the downstream operation. This can be possible if the export order is done in a larger quantity and with a regular frequency in trade with the same players of the chain.

Resource dependency theory (RDT) perspective:

As most of the services are outsourced, we may have seen this in the Resource Dependency Theory (RDT) perspective. The behavior of the firm will be affected by the external resources that possess, but the client has no other choice than to depend on the service providers. This is not only an issue that ends within and between the firm and the LSPs; but the downstream has to link the firm's customer i.e., the importer, the coordination and relationship is now triangular where the cross coordination is expected. The involvement of third party i.e., LSPs has to be traced and tracked till the FOB or to follow-up till the goods reaches the overseas forwarder or till handing over the goods as per the agreed terms in the export contract. The transparency of information is a problem in all the stages and communication in between and across the parties is not channelized like, every party can view the exact status of the shipment in the transit. Integrating this part of the supply chain is the hardest task were lot of factors, procedures and operations were involved. The involvement of the government regulations, the procedures to be followed in the various stages like, customs clearance, documentation, freight, climate, political factors, economic factors, legal procedures, overseas regulations etc....were the external factors which must be processed by outsourced external service providers.

7. Conclusion:

Based on the understandings of the issues and implications it is evident that the garment export manufacturing industry is logistically disintegrated. This

must be given attention and an empirical study can be conducted to find the actual happenings in the garment industry. There is a high possibility of finding a proper mechanism to blend the logistics functions with the production operations, this will truly enable the industry to evolve with an effective and efficient outcome.

Conflict of interest statement

Authors declare that they do not have any conflict of interest.

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