

"Supply Chain Management"- Offering the New Paradigm for Bangladesh Garment Industry

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Abstract

This manuscript aspires toward appraise the notion of Supply Chain Management (SCM) concerning Bangladesh Garment Industry. Managing and Scheming the Bangladesh Garment Industry Supply Chain (SC) is one of the fundamentals for international business and augments export. The distinctive tribulations facing with Garment and Textile Supply Chain (SC) are petite product rotation for Global Critique, extensive manufacturing lead-time and forecasting blunders for Garments substance. The premeditated necessities of Bangladesh garment business resolve the extent, distinctiveness and strategic route of the supply chain (SC). Some dealings are only involved with intercontinental maneuver to secure a supply of resources and mechanism; promotion is domestic.

Generally Supply Chain Management (SCM) is exceedingly multifaceted. In the RMG sector the Supply Chain Management (SCM) is more complex owing to characteristics of global Supply Chain (SC). In the global supply chain, crossing borders nearby supply with a multiplicity of general obstructions to intercontinental business: tariffs, nontariff obstructions, switch over rates and differences in product necessities, consumer savors and business observes. Borders also present some impediments in transportation services, which are very common for RMG sector in Bangladesh. Manufacturers, suppliers, and buyers all stages of supply chain in the RMG sector are decentralized. Different stages of supply chain have conflicting goals and objectives.

Carefully using the available information and integration of supply chain can reduce the cost of conflicting goals and objectives. The approach is to compile the Supply Chain Management for the Bangladesh Garment Industry seriously. This is the right time to think and re-think for the Decision Makers and the Planners of Bangladesh (Government and Non-Government) about the SCM issue to implement in Bangladesh Garment Industry with the inspiration and keenness to sustain in near next into the Global Garment Market with the highly competitiveness, efficiency, and productivity.

Key Words: Supply Chain Management (SCM), Ready-Made Garment (RMG), Bangladesh Garment Industry

1. Introduction

Started on 1970s, the Ready-Made Garment (RMG) industry of Bangladesh became a prominent thespian in the economy contained by a petite epoch of occasion. The commerce has made a imbursement to sell abroad pay packet, foreign exchange pay packet, employment formation, scarcity mitigation and the power pack of Bangladesh populaces. The export-quota scheme and the accessibility of despicable labor are the two main grounds behind the triumph of the industry. In the 1980s, the Ready Made Garment Industry of Bangladesh was concerted mainly in manufacturing and exporting woven products. From the early 1990s, when Supply Chain Management perception is offering a new state of Management, particularly the knit segment of the industry has in progress to swell. 1. Shirts, 2.T-shirts, 3.Trousers, 4.Sweaters, and 5.Jackets etc. are the most important products contrived and exported by the industry and Bangladesh expanded a significant arrangement in the Global Garment Segment.

On the contrary, Supply Chain Management is such kind of Management dealing with customer contentment concerning Manufacturing and Service which are the key values for the Bangladesh Garment Industry obviously. It Constance all of the customer requirement and essential it's all about customer (buyer in term of garment industry) satisfaction. Supply Chain Management (SCM) is such kind of Management for a network of intra and interconnected businesses (Supplier to Manufacturer to Buyer) engaged in the provision of goods and service packs (Lead Time or up to Shipment) needed by the bottom end customers in a supply chain. Supply chain management extents all attempts and procurements of raw materials like trims and accessories, work-in-process inventory, and completed goods from source of origin to source of consumption inside the garment commerce. So according to the nearby scenario Supply Chain Management is in actuality offering a New Paradigm for Bangladesh Garment Industry undoubtedly.



2. Overview of Bangladesh Garment Industry through SCM

Bangladesh vends overseas its Ready Made Garment products principally to the USA and the European Union. Those two intentions financial credit for more than a 90% allocate of the country's entirety earnings from garment exports. The country has accomplished some products diversification in both the US and the EU. Only just, the country has attained some level of product advancement in the EU, but not to a significant extent in the US. Bangladesh is fewer cutthroats compared with China or India in the US and it is somewhat competitive in the EU markets.

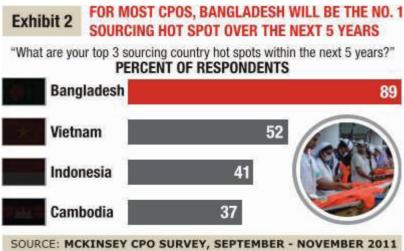


Figure 1: Bangladesh is clearly the preferred next stop for the sourcing caravan (Exhibit 2) [1]

The step-out of the export-quota regulation from the starting of 2005 has hoisted the competitiveness issue of the Bangladesh Ready Made Garment Industry whereas Supply Chain management as a highest priority concern. The most invaluable task for the industry is to minimize the lead time of garment manufacturing which is directly conducted by the right rotation of supply chain management (SCM) tactic. The enhancement of deep-level competitiveness through a reduction in total "production and distribution" time will improve surface-level competitiveness by plummeting lead time.

Such an approach is significant for long-term steady expansion of the industry, but its execution will obtain time. In disparity, the establishment of an innermost or common bonded warehouse will advance surface-level competitiveness by reducing lead time, but deep-level competitiveness will not be improved and long-term industry development will be delayed due to the optimum uses of SCM perceptions. Therefore, yielding permission to establish in the private sector such as warehouses similar to garment industry of Bangladesh with particular incentives, and the duty-free bring in of raw materials (fabrics, trims and accessories) usable in the export-oriented garment industry for tumbling the lead time in garment manufacturing is a decisive concern for Bangladesh so that the supply chain management (SCM) is the must have concern now a day.

Supply Chain Management encompasses, "Organizing the optimal flow of high-quality, value for money materials or components to companies from a suitable set of innovative suppliers". Supply Chain Management performance is a powerful driver and a significant strategic tool for firms striving to achieve competitive success. This study explores the impact of supply chain management strategic skills on supply chain management performance according to the Bangladesh Garment Industry.

This study of the Bangladesh garment industry is a first step towards creating structure in the study of supply management skills. It extends previous work by proposing and testing the relationship between specific supply chain management strategic skills and supply management performance using quantitative analysis. The core skills are those that actually shape the competitive position of supply chain management. It is important to focus on the core supply chain management skills from among the wide variety of skills that have been identified in the garment industry of Bangladesh.



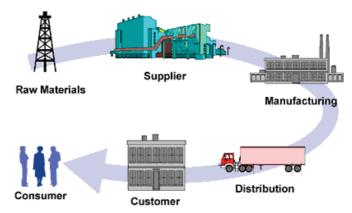


Figure 2: In general SCM work view in Bangladesh Garment Industry (Website of Adjutant) [2]

Subsequent, Bangladesh requirements to get better the factory working environment and various social matters related to the Ready Made Garment Industry. International buyers are very scrupulous about compliance with codes of conduct (Wal-Mart is clearly ahead to SCM generation for an example). Thirdly, issues associated to product and market diversification as well as advancement products desires to be addressed with extraordinary heed which is ensuring by SCM in a scattered manner. Furthermore, the Government of Bangladesh requires strengthening its prop up. The enlargement and modifying of the port's supply chain management and other physical infrastructure, the smooth supply of utilities, a corruption-free business surroundings and political stability are some precedence concerns for the Government to regard as in its efforts to attract international buyers and backers.

3. Diagram for Utilization of SCM in Bangladesh Garment Industry

Supply Chain is a progression by which unprocessed materials such as accessories make over from Supplier to Garment Industries in bartering of order and payment.

The general elements of supply chain process are: (Based on Bangladesh Garment Industry)

- i) Supplier
- ii) Garment Industries
- iii) Individuals
- iv) Raw materials
- v) Finished goods
- vi) Payment

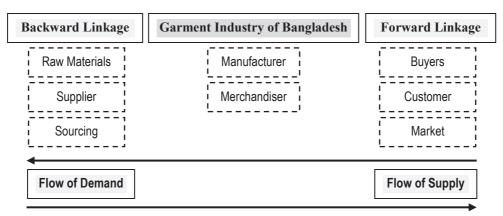


Diagram 1: Basic Diagram for Supply Chain in Garment Industry

4. Critical Literature Review

A Supply Chain (SC) is self-motivated and involves the constant flow of information, product, and funds between different phases. In our example, Wal-Mart provides the product, as well as pricing and availability information to the customer. (Sunil Chopra, Peter Meindl and Dharam Vir Kalra; Supply Chain Management) [3]. Wal-Mart is one of the prime buyers for Bangladesh Garment Industry so that maintaining the parallel line,



Garment Industry of Bangladesh (at least where Wal-Mart is placing the order) is executing the management of supply chain meticulously.

DFSS (Design for Six Sigma) offers a new approach to total quality management with a more integrated approach to ensure customers focus and financial accountability for investment in improvement. (Parveen S. goel, Pravenn Gupta, Rajeev Jain and Rajesh K. Tyagi; Six Sigma for Transactions and Service) [4]. As we know the Total Quality Management is the management which is ensuring the garment industry's productivity with proper quality and it is the dominant branch of Supply Chain Management. As well as Six Sigma is the new edition by the SCM perceptions.

Divisional executives play a key role. In conjunction with corporate-level executives, they help to determine the product-market and financial objectives for the division as well as their division's contribution to overall corporate performance. (Gregory G. Dess and G. T. Lumpkin; Strategic Management — Creating Competitive Advantages) [5]. SCM can only ensure the divisional success according to the decisional execution.

According to the review of current picture of textile industry in different countries, it is visible to us that textile sector has significant role to improve our economical growth in Bangladesh. Delivering the finished products on time from suppliers to customer would be possible through the proper application of supply chain management [6]. The importance of product and process development is not limited to industries or businesses built around new scientific findings with significant levels of R&D spending, or where new products have traditionally accounted for a major fraction of annual sales. (M. Dayne Aldridge and Paul M. Swamidass; Cross-Funcional Management of Technology – Case and Reading [7]. Product can be actively developed and made value effectively through the process migration of supply chain management.

Productivity indicators used to assess performance should be based on an "adequate" number of input and output variables known to separate productive from non-productive behavior. (Elizabeth A. Smith; The Productivity Manual) [8]. The backward linkage of supply chain management makes certain the productivity performance according to the forward linkage of supply chain management in terms of its properties.

5. Objectives

The whole supply chain procedure based on management for Bangladesh Garment Industry is strongly related with the trend of relocation of production. So bases on the nearby market garment business are unswervingly related to the supply chain process. It may be straightforward or multifaceted depends on the areas and the zones of order and company's availability and reorganization.

Administrating and conducting has sole confronts in case of l garment industry because this industry faces a lot of stipulate uncertainly depending on inclinations like fashion and consumer preferences. So we have considered some basics about the offer of internal supply chain procedures and process of Bangladesh garment industries such as:

- 1. Knowing the overall supply chain process through Management
- 2. Observing the simple supply chain mechanism available in Bangladesh garment industry
- 3. Acquiring the elements and the areas of supply chain procedures.
- 4. Finding the practical and conceptual clues about the supply chain procedures in Bangladesh garments.
- 5. Monitoring the future prospect as per our subjective knowledge
- 6. Distinguishing the running procedures with the actual procedure as per international system of supply chain process.

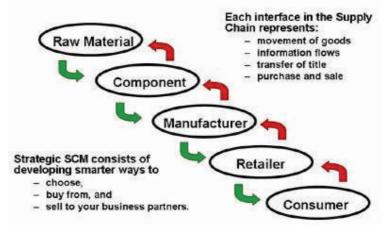


Figure 3: Objecting the Supply Chain Process – Start to End (Website of Adjutant) [9]



6. Limitations

SCM means Supply Chain Management or process comes into eminence when these companies have to allocate their products either to the retailers or directly to the patrons in the Bangladesh garment industry. So that we have pragmatic some limitations to merge the supply chain concept usually in Bangladesh garment industry such as:

- 1. Literacy concerning actual SCM
- 2. Unwillingness to transform the conventional management policy
- 3. Lack of monitoring, scheduling and controlling support
- 4. Not feeling the future prospect regarding SCM
- 5. Lack of customers' (buyers') obligation to implement the SCM thoroughly

7. Scope

If Supply Chain Management (SCM) or procedures is ended appropriately, it can assist the Bangladesh Garment Industry to diminish their catalogs which will direct to cutting of operational costs, lessen order cycle time, enhance plus efficiency as well as augment the companies' receptiveness to the market. Improved and superior SCM or SCP performs also leads to quick response which is a concept pertaining to the collaboration and sharing or information among manufacturers, suppliers and distributors, permitting them to act in response more swiftly to the requirements of the clienteles. The organizations like Universities, Training Centers, and Commercial Offices etc are offering Supply Chain Management as important courses for the modern management by which the employees can be well educated concerning supply chain management and after that they can implement the learning directly in the Bangladesh garment industry. It can make certain our future economic augmentation more enthusiastically.

8. Recommendations

The Garment's Supply Chain diverse: a. raw material, b. divisions, c. ginning facilities, d. spinning and extrusion processes, e. processing sector, f. weaving and knitting factories and g. garment (and other stitched and non-stitched) manufacturing that supply an extensive distribution channel. This Supply Chain (SC) process is possibly one of the most diverse in terms of the raw materials utilized, technologies installed and products formed. The demarcation of product strains into functional and innovative products assists the supply chain company to employ dissimilar supply chain strategies for different products, namely responsive supply chain strategy for pioneering products and efficiency supply chain strategy for purposeful products [10].

Garment Supply Chain Management is the beneficial ones for generating the order to the shipment (start to end) appropriately as per factory and the buyer's obligation. Apparel buyers around the sphere insist product as they want it, when they want it and the best possible price so that supply chain can do a lot to this concern in reality. In today's highly competitive global marketplace they are placing greater value on excellence and delivery time. Manufacturers similarly have begun to situate more value on quality and delivery time and companies need to try to swell a competitive perimeter and improve profitability through cutting cost, increasing quality and improving delivery by the assist of supply chain management.



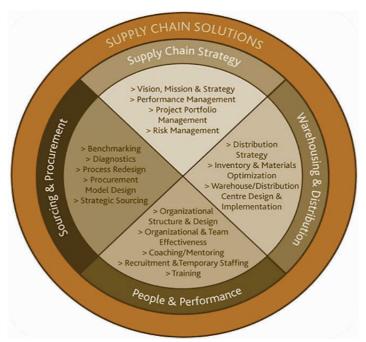


Figure 4: Supply Chain Recommendation Model (Website of Adjutant) [11]

9. Discussions

Supply Chain management (SCM) expresses managing the supply of 'inbound and outbound' goods and services in the most cost effectual and time responsive way. This can be done by designing a strategic route plan for the quickest possible pick-up and delivery regimen, from the appropriate suppliers, for all points throughout the congregation line, in order to achieve cost and time related efficiency levels in Bangladesh Garment Industry.

All manufacturing, service leaning and progressive companies have logistics departments that execute Supply Chain Management (SCM) plans so that goods and services that approach in can be made obtainable to the various departments for meeting production schedule and churning out finished goods and services to the clients in the quickest cost effective way possible.

Logistics exercises various infrastructure and machinery to bring about the execution of the Supply Chain Management (SCM) strategy. Such Supply Chain Management (SCM) and logistics mechanism can be relevant in the macro sense as well, encompassing the economic activity of the whole country.

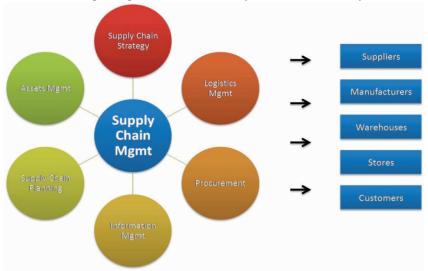


Figure 4: Supply Chain Management Chanel Deviation in Bangladesh Garment Industry [12]



'The Cotton Knitwear Sector' (raw cotton has to be importation) of the garment industry in Bangladesh illustrates an almost complete supply chain. Spinning, yarn dyeing, knitting, confection of knits and garment finishing is done in the country. Some of the factories in Bangladesh are even fully vertically integrated (spinning to finished garment). The situation in the 'Woven Garments Sector' is completely different. There are only a few weaving mills in Bangladesh offering a sufficient quality customary concerning supply chain management for exports and consequently the majority of fabrics which are used for woven garment exports has to be imported.

This exposes superior purchasing costs, stronger dependence on an external supplier (e.g. concerning delivery dates) and also pricing drawback due to advanced import duties e.g. on the European Union marketplaces. (Corporate Solution, Bad Nauheim 2005) or fabric imports and in addition to that it prevents the garment industry from depending too much on other supplying markets, less influence on delivery times or problems with the right to claim a guarantee.

The approximate gross value addition for different steps within the textile and garment production in Bangladesh is listed below.

- 1. Spinning 17 %
- 2. Weaving 15 %
- 3. Knitting 18 %
- 4. Dyeing / Finishing 15 %
- 5. Finished Garments 28 %

(Source: Corporate Solution, Bad Nauheim 2005)

10. Recital Measurement in the Bangladesh Garment Industry concerning SCM

According to Chan (2003), the aim of Supply Chain Management SCM) is to augment an advantage in terms of customer overhaul and cost over competitors. Conventionally, performance measurement is defined as the process of quantifying the effectiveness and efficiency of action. It plays a critical function in monitoring performance, enhancing motivation and statement, and diagnosing problems.

Additionally, performance measurement helps recognizing the success and potential of management strategies like supply chain management, and facilitating the understanding of the situation. Traditionally, performance measurement is defined as the process of enumerating the efficiency and competence of action. From the management perspective, performance makes available the necessary information for feed back to Decision Makers and Process Managers.

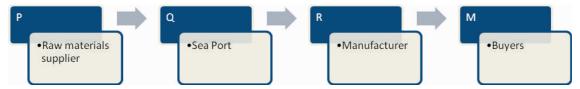


Figure 5: Basic Supply Chain for Recommended Garment Industry of Bangladesh

Supply Chain Management (SCM) plays a decisive role in scrutinizing performance, enhancing motivation, facilitating communication, and diagnosing problems. Performance measures are categorized into two groups; qualitative and quantitative. These measures involve customer satisfaction and responsiveness, flexibility, supplier performance, and costs. There are three types of measures: resources, output, and flexibility inside the Supply Chain Management (SCM). Supervising in the production process can occur at three points: before production, during production, and after production. The logic of checking conformance during production is to make sure that inputs are acceptable. (William J. Stevenson; Production / Operations Management) [13].

Nonetheless it is protected to say that the more competitive the industry, the more shortened lead-times will help out. In competitive industries, short lead time will distinguish a company from its competitors, leading to increase sales (Chariest J. Murgiano, CPIM). Lead time is one of the main competitive factors among companies. The ability to deliver quickly influences export, sales and thereby revenue.

The definition of lead-time can diverge, depending on what fraction of the company is focused upon. It normally includes all activities from start to end. It can be efficient by using the perceptions of supply chain management appropriately.



2005		2011°	
China	\$74.2 billion	China	\$153.8 billion
Italy	\$18.7	Italy	\$23.3
Germany	\$12.4	Bangladesh	\$19.9
Turkey	\$11.8	Germany	\$19.6
India	\$8.7	India	\$14.4
France	\$8.5	Turkey	\$13.9
Mexico	\$7.3	Vietnam	\$13.2
Bangladesh	\$6.9	France	\$11.0
Belgium	\$6.7	Spain	\$9.2
U.S.	\$5.0	Belgium	\$9.1

Table 1: Offering SCM to show Future Prospect of Bangladesh Garment Industry [14]

11. Methodology

In this explore, Qualitative Scheme has been used. In the Qualitative Method we can come across out how people feel or what they consider about a particular problem, which are very relevant in this explore. Mainly the Descriptive Explore approach has been used but in the exploratory phase of the research, in-depth interviews have been conducted with the Suppliers / Manufacturers (as well as Owners) and the relevant bodies and association in order to obtain the influential variables and to get a clear perspective of SCM and lead time management in the garment sector.

This explore examines the relationship between strategic supply management skills. Supplier integration is the perceived status of the supply management function, and supply management performance in the Garment industry of Bangladesh. A conceptual model has been developed based on the literature on strategic supply management skills, supplier integration, the perceived status of supply management, and supply management performance. To test the representation a thorough investigation was conducted to justify secondary data from the purchasing managers or equivalent within the highly competitive garment industry in Bangladesh. The model was tested using Structural Equation Modeling The findings from this study indicate that there is significant evidence to support the conjectured model in which strategic supply management skills, supplier integration and the perceived status of supply management have a direct impact on supply management performance.

This implies that firms can improve their supply management performance through an increased emphasis on strategic supply management skills, supplier integration and improving the perceived status of supply management. The investigation of this explore is stand on Secondary Data specially, together with online databases, digital libraries, boos, journals, conference papers, etc. Far-reaching Supply Chain Management (SCM) of Bangladesh Garment Industry study papers of academicians and practitioners are progressed from distinguished international journals, namely International Journal of Marketing Studies (Canada), International Journal of Business and Management (UK), Journal of Knowledge and Information Management (UK), American Journal of Supply Chain Management (USA), International Journal of Logistic and Research, International Business Research (Canada), Asian Journal of Business and Management Science, Asian Journal of Natural and Applied Sciences, World Review of Business Research, ELSEVIER, PROQUEST, IJSCM, IEEE, ACM, JSTOR, EMERALD, Science Direct, etc. The relevance of Supply Chain Management (SCM) on Garment Industry was developed based on the scrutiny of literature.

12. Limitations and Directions for Future Research

This study has drawn on theory that had been developed in the European and American context. There might be



some differences in the Bangladeshi context especially in Garment Industry of Bangladesh. Little explore about supply chain management was available that had been conducted in Bangladesh. Also, the example was drawn from a particular industry through secondary sources, so it may not represent all industry in Bangladesh. The example population could not cover all the companies in the industry because of time constraints and the limitations of the data available on secondary sources.

For future research, to extend beyond the present example, the researcher might start with other respondents in the garment industry before moving on to test the suppositions in other industries in Bangladesh. The framework may need changing or adapting to be suitable for the target industry. The study of supply chain management will lead researchers and managers w ho want to improve towards better ways of advancing supply chain management. Future research will need to develop an understanding of the impact of strategic supply chain management skills on supply chain management performance in reverse marketing situations. The present study has moved toward considering these constructs simultaneously, but there is room for further development in that direction.

13. End Notes

The Garment Industry (Apparel Industry) is an important and fundamental business sector in Bangladesh. For this ground, companies operating within this industry must then be able to be relevant business strategies that would assist sustain the growth of the clothing or apparel sector through Supply Chain Management (SCM). This paper represents the current scenario of Bangladesh garment Industry as well as the Global impact. This resources that by modifying a few of the existing business actions of the Garment Companies, such as their Supply Chain Management (SCM) systems, unremitting advancement and expansion in the industry may be observed. By means of identifying the current supply chain management practices of some Bangladesh Garment Industries, business areas for upgrading can be acknowledged.

This in turn may facilitate the formulation of better Supply Chain Management (SCM) performs that would make a payment to the unremitting fruition of the Bangladesh Garment industry.

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