

SUPPLY CHAIN MANAGEMENT AND OPERATIONAL PERFORMANCE: A CRITICAL EVALUATION OF AVAILABLE LITERATURES

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Abstract: *The Supply Chain Management (SCM) is a strategic tool that companies across the world are using for promoting performances. Operational performance is one of the performance measures for both manufacturing and service companies. Proper implementation of SCM is instrumental for achieving targeted performance and growth for companies. It contributes in improving competitiveness for the companies in the global market place. There is hardly any option left for companies in Bangladesh for not implementing extended SCM in order to survive in the industry. In this era of intense competition, implementation of SCM is the likely solutions for grabbing more market share. This study makes a critical evaluation of available literatures on influence of SCM on operational performance in the Bangladesh Readymade Garments Industry.*

Keywords: *SCM Practices, Operational Performance, Competitiveness, Global Market and RMG Industry.*

INTRODUCTION

Researchers across the world defined Supply Chain in many different ways depending on the context and interest. There is no one definition available that is considered as standard one. Vokurka *et. al.*, (2002) found 160 unique definitions in one of their researches where each definition is different from other. However, most definitions described SCM as a network of different companies where they interact each other for efficient conversion of raw materials in to finished products and flow of information (Lummus and Vokurka, 1999; Cooper *et al.*, 1997). In this intense global competition, companies do not complete each other rather SCM of one company competes with other. That actually triggers the importance of effective implementation of right kind of SCM in the companies irrespective of the industries and geographical borders. SCM has emerged as an important strategic tool for organizations of all types. SCM is nothing but moving right items to right customers at right time with lowest cost by most efficient means. It encompasses planning with forecasting, procurement, manufacturing, logistics management,

inventory control, distribution and retailing. Koh *et. al.*, (2007) argued that SCM practices are the combinations of functions performed in the different firms for ensuring proper management of the extended SC the companies have. On the other hand, out of so many definitions available in the literatures, one of the most popular definitions of SCM is integration and efficient management of all the related processes those are required for timely delivery of products and services along with ensuring smooth flow of information which ultimately creates customers satisfaction (Cooper *et. al.*, 1997).

SCM practices contribute in improving organizational performance: operational and financial performance for any company may it be manufacturing or service organizations. Donlon (1996) described SCM practices with outsourcing, cycle-time reduction, supplier partnership and sharing of information technology. Li *et. al.*, (2005) defined SCM practices to be the management of companies' SC in the most effective manner through different orchestrated activities. Supply chain of any company includes all parties who all are involved in satisfying a customer demand. SCM, these days is more competitive as competition increased in many folds and market has also become truly global. SCM is contributing for the companies of all industries in order to improve operational and organizational performances globally. According to pervious literatures a direct relationship between SCM practices and operational performances is evidenced in different industries. Flynn *et. al.*, (2010) argued that most researchers used operational and business performance for measuring firms' performances in their study. Many scholars and researchers defined Operational Performance in many different ways basing on the industry. Kaplan and Norton (1992) suggested different ways for measuring organizational performance such as accounting measures, operational performance, survival and value measures. This study aims in evaluating the available literatures on the influence of SCM practices on operational performance in the context of RMG industry of Bangladesh.

PROBLEM STATEMENT

RMG SC includes all functions those are required for buying raw materials up to manufacturing of finished RMG products for fulfilling customers' orders. Achieving a desired level of selected metrics for operational performances will lead to ultimate fulfillment of customers' orders through efficient practices of SCM. SCM practices contribute in improving operational efficiency so that market demand can be satisfied with lowest cost possible with ensuring targeted quality. If an organization cannot implement SCM properly, it may

face severe disturbances in its upstream supply, (Arend and Wisner, 2005). Researchers identified SCM as one of the tools that has great influence in improving efficiencies in any organization. Burgers and Koroglu (2006) listed down the necessity of SCM for business organizations but found out that there is hardly any study conducted on SCM practices in different organizations. Nuruzzaman, M (2007) found out that Bangladesh RMG industry needs 55 to 75 days for importing fabrics from different countries mostly from China. This import dependency for fabrics is one of the main reasons for long lead time and higher material costs. Khan, S (2007) mentioned in one of their studies that lead time required for a regular product in Bangladesh is about 90-100 days, whereas China needs only 30 days. Thus, the supply chain practices must be well implemented for remaining competitive in the world. SC, when used properly, becomes management strategy which provides a new competitive advantage for the industry.

RATIONALE OF STUDY

The RMG Industry is the largest foreign currency earning sector for Bangladesh which is exporting all kinds of apparel products to the USA, Europe and other developed countries. It has enormous contributions in economic growth of Bangladesh which contributes 90% of manufacturing goods exports (Export Promotion Bureau of BD, 2018). World Economic Forum has ranked Bangladesh economy as fastest growing economy in the Asia continent with 8% GDP growth in the year 2020. India was placed in the second position in the list with an estimate growth rate of 7.20%. The industry contributes 85% of the total export earnings of the country; this signals the importance of the RMG sector for the sustainable development of the country. Moreover, in the '2nd Sustainable Apparel Forum' held in 05 November 2019 in Dhaka, Bangladesh which was jointly organized by Bangladesh Apparel Exchange (BAE) and Bangladesh Garment Manufacturers and Exporters Association (BGMEA), it was argued that the use of RMG products will be increased by 65% in next 11 years in the world with the increase of 16% world population by 2030. Though Bangladesh RMG industry enjoys number of unique strength over competitors in the counts of quality of products, resilience of the Bangladeshi entrepreneurs, ability to conform to the buyers' requirements but it has lot of challenges in remaining competitive. This has influence on overall increase of lead time comparing with other RMG producing countries. Moreover, prior studies on this particular issue suggest that the implementation level of SCM practices in all types of industries in general in Bangladesh and

RMG industry in particular is not satisfactory. Off late, it is encouraging that, Bangladeshi RMG entrepreneurs have started understanding the importance of application of SCM practices for remaining competitive in the world. In order to do justice for the study, a critical evaluation of the available literatures on the particular issue is much needed.

OBJECTIVE

The objective of this study is to make a critical evaluation of the available literatures on the influence of SCM on operational performance of manufacturing organizations in general and of the RMG sector of Bangladesh in particular.

SCOPE AND LIMITATION OF THE STUDY

This study attempts in making a critical evaluation of available literatures on influence of SCM on operational performance of the all kinds of organizations. But it focuses only on manufacturing organizations in general and Bangladesh RMG sector in particular. It deals with how Bangladesh RMG can recoup the benefit from effective implementation of SCM in promoting the operational performance. The evaluation considers the influence of SCM on operational performance only leaving other measurements of performance for the organizations systematically. A thematic and chronological analysis on the subject would make it more reader friendly; that remains a limitation of this study. But efforts have been made for studying the influence of SCM practices on the operational performance on RMG sector scientifically.

EVALUATION OF LITERATURES ON SCM AND OPERATIONAL PERFORMANCE

The SCM concept was first familiarized in the 1980s and was developed from old-style logistics management (Harland, 1996). Many studies conducted in trying to determine the relationships between SCM practices and organizational performances in different industries across the world let alone in RMG industry of Bangladesh. Few researches are available in industries including manufacturing companies, hospital industry, banking industry, and hotel industry on effect of SCM practices on operational performance but same studies on RMG industry are very scanty. F. Saleheen (2018) opined that an efficient SCM is fundamental to the competitiveness of manufacturing firms as it directly impacts their capability to respond to the market demands in judicious approach. The SCM

concept was investigated from many different stand point and perspectives few of which are organizational theory, operations management, purchasing and supply management, marketing, management information systems and logistics & transportation (Croom *et. al.*, 2000; S. Li, *et. al.*, 2006).

PRESENT STATE OF RMG SECTOR OF BANGLADESH

Bangladesh apparel industry started its very humble journey in 1980 with Riaz Garments producing very basic RMG products. Later on, over the decades, the industry grew so much that it turned Bangladesh to basket full of wonders from so called bottomless basket. Bangladesh RMG industry has become example for other RMG producing nations for its unprecedented growth over last three decades with effective leadership and RMG diplomacy. Bangladesh RMG industry is the highest contributing industry in the economy of Bangladesh and it is the single largest employer. It is playing a very important role for the socio economic development of country (K.K. Samaddar, 2016). The industry has now more than 4500 companies with employing more than four million employees of which 85% are women (S. M. Akterujjaman and M. H. Ahmad, 2016). Around 20 million people are directly or indirectly involved with this sector. The industry stands out in empowering women in the society both in financially and in decision making. It enjoys 6.5% global market share which is second position after China with an export worth of US\$ 29 billion in 2018. USA (around 40%) and EU (60%) are the biggest buyers/importers of Bangladeshi readymade garments. 95% of the investments in Bangladesh RMG industry come from local investors whereas Vietnam, the closest competitor of Bangladesh enjoys foreign investments from countries like China, Korea and Japan as part of business strategy including China Plus One.

The industry is more matured than ever before with facing stiff competition from different RMG producing nations in the post MFA period. It has more numbers of compliant factories with highest numbers of green factories in the world. It still depends heavily on the imported fabrics and other input materials for fulfilling the customers' order. It results long lead time which is the single most barrier in attracting orders from buyers. Nuruzzaman and Haque (2009) opined in one of their studies that lead time can be reduced through orchestrating upstream and downstream SCM partners. Lead time can also be minimized through improving backward linkage taking appropriate initiative for promoting textile industries (Nuruzzaman 2007, 2008). However from the beginning of 21st century, Bangladeshi RMG industry started facing different problems including product diversity, productivity, ensuring right quality and

the likely solution of overcoming all these problems is improving on SCM (Hossain and Roy, 2016). Bangladesh can emerge as an unbeaten and ultimate sourcing destination by buyers and brands if product development, product diversification, efficiency and sustainability can be ensured for the industry. Branding the country along with using media of the buyers' country, strong marketing efforts and effective apparel diplomacy are the key for success of the Bangladesh RMG industry. After making thorough literature reviews on the present state of RMG industry of Bangladesh, a SWOT analysis has been conducted. The analysis has been put in the following table:

SWOT Analysis for Bangladesh RMG Industry

<i>Strength</i>	<i>Weakness</i>
40 years of long history with associated experience Comparatively cheap labor force available Resilient and experienced entrepreneurs Highest numbers of compliant and green factories Effective leadership by BGMEA Pro-industry policy by government	Slower adaptation of latest technology Lower productivity Quality Image crisis Weak background linkage in the woven sector Inefficient workforce Longer lead time due to import dependency Inefficient port facility and other infrastructures High tax rate Energy insecurity
<i>Threats</i>	<i>Opportunities</i>
Too much dependency on import for input materials Low profit margin Mass adaption of technology by competitors Inadequate training institutions and education facilities Very less investment in research and development Low foreign investment in the sector Workers unrest without proper ground and notice	Change of world trade dynamics resulting increase of orders Growth in denim production Expanding export market with wide product range Adoption of contemporary management philosophy including JIT, Lean manufacturing, TQM etc

Source: Primary

CONCEPT OF SUPPLY CHAIN MANAGEMENT

Generally SCM is about moving things to right customers at the right place with lowest possible cost and right quality in the most efficient manner.

The major functions of SCM but not limited to are: Management of Suppliers, Management of Raw Material, Transportation Management, Information Management, Tracking and Monitoring, Cost Management, Inventory Management and Distribution and Return Management. According to S. Chopra and P. Meindal (2001) a SC encompasses all the steps those are involved in any way or the other for fulfilling customers' order. In other words, it is a chain that includes all the entities of a business to achieve a goal and work in a complex process by interchanging information, production and other resources. Christopher (2005) argued that companies can have competitive edge through practicing SCM efficiently. Jacobs and Chase (2018) adds that SCM involves the process of enabling the effective flow of information, materials and services from supplier raw materials, to the warehouse or factories and finally to the ultimate satisfaction of the end customer. Krajewski, *et. al.*, (2013) defined supply chain as it is the interrelated series of processes within a firm and across different firms that produce a products or service to the satisfaction of customers. 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. Few other definitions those extracted as the summary of literature review for definition and concept SCM have been provided in the table that follows:

Few SCM Definitions

<i>Serial</i>	<i>Author(s)</i>	<i>Definition</i>
1.	F. Saleheen (2018)	Business entities from walks of life for facilitating partners to have edge over competitors in this globalized world.
2.	S. Croom, <i>et. al.</i> , (2000)	Company's art of capitalizing on the expertise of suppliers', their technology and abilities in order to have an advantage.
3.	Hult, G. (2007)	Structure of network that enables interrelated organizations to work for achieving common goal of customer satisfaction.
4.	Curwen LG, <i>et. al.</i> , (2013) Abe M, <i>et. al.</i> , (2013)	A system composed of people, organizations, technology and resources for moving a product to the end user.
5.	Christopher (2005)	Strategic approach for boosting firms' performance through orchestrating all business process involved across different organizations.

<i>Serial</i>	<i>Author(s)</i>	<i>Definition</i>
6.	(Mentzer <i>et. al.</i> , 2001).	Combination of different business entities involved in flow of products, fund and information from supplier to the end customer.
7.	Harland (1996)	Efficient management of inter-linked business enterprises for delivering quality products to the end customers with minimizing cost for achieving customer satisfaction.
8.	Ellaram and Cooper (1990)	Management philosophy that effectively manage companies' distribution channel beginning from supplier up to end user.
9.	Mohanty and Deshmukh (2005)	This is a loop that begins with customer and finishes in the customers' place for efficient flow of input materials, end products and related information.
10.	Gattorna and Walters (1996)	SCM evolved from previous logistics management which was turned from physical distribution.

Source: Secondary

Debnath and Mazedul (2017) opined that Garments 'Supply Chain Network includes management of all necessary value added products of the chain to be supplied, transformed and delivered to the final customer of every stage of the chain in the right time, at right place maintaining a minimum amount of profit. On the other hand, textile SC consists of Suppliers, distributors, retailers, customers. Customers remain at the fore front in present days SCM. In a study, Habib (2011) identified basic objectives of SCM is to harmonize the market demand with supplies for striking a balance amongst maximizing customer satisfaction, minimizing inventory and reduced costs. Again, Li *et. al.*, (2006) divided the objectives of SCM into two categories; short-term and long-term objectives. Increasing productivity, reducing inventory and cycle time are short-term objectives while increasing market share and profits are long-term objectives of the SC. Few other benefits of SCM are improved delivery service, reduction inventory and shorter product development cycle. The benefits of practicing SCM have been listed below after reviewing all relevant literatures:

Benefits of SCM

<i>Serial</i>	<i>Author</i>	<i>Benefits</i>
1.	Giménez and Ventura (2003)	Inventory Reduction, Cost Reduction, Transportation Cost Reduction, Operations Simplicity, Cost Saving in Material Purchasing, Minimizing Stock-Out Situation, Lead Time Reduction, Efficient Planning of Production.

<i>Serial</i>	<i>Author</i>	<i>Benefits</i>
2.	Keane <i>et. al.</i> , (2004)	Delivery Management, Compressing Cycle Time, reducing Time for Product development, Quality improvement.
3.	Jharkharia and Shankar (2004)	Maintaining Minimum Inventory, Customer Responsiveness, Reduction in Cycle Time.
4.	Van de Vorst (2004)	Delivery Dependability, Improving Quality of Products, Minimizing Transportation Cost, Sales Growth, Reduction in Cost of Labour.
5.	Fawcett <i>et. al.</i> , (2008)	Customer Oder Processing, Delivery Management, Improvement of Profitability, Quality Improvement, Innovation of Product.
6.	Valmohammadi (2013)	Delivery Schedule Management, Risk Reduction, Reduction of Redundant and Duplicate Process, Efficient use of Capital.
7.	AbTalib and Abdul Hamid (2014)	Overall Cost Reduction, Improving Product Reliability, Reducing Product Return Frequency, Waste Elimination.

Source: Secondary

DIFFERENT SCM PRACTICES

SCM practices consist of actions carried out by any organization for ensuring proper management of its extended SC. Effective SCM improves competitive advantage for any business organization. Numbers of researches around the world have been done for identifying relevant supply chain practices across different sectors. Donlon (1996) describes SCM practices with “supplier partnership, outsourcing, cycle time compression, continuous process flow, and information technology sharing”. Again, Alvarado and Kotzab (2001) described SCM practices as “concentration on core competencies, use of inter-organizational systems such as EDI, and elimination of excess inventory levels by postponing customization toward the end of the supply chain”. On the other hand, Tan *et. al.*, (2002) identified six aspects of SCM practices: “supply chain integration, information sharing, supply chain characteristics, customer service management, geographical proximity and JIT capability”. The summary of dimensions found in the previous literatures has been given below:

SCM Dimensions from Literatures

<i>Serial</i>	<i>Name of Author</i>	<i>Dimensions of SCM practices</i>
1.	Koh <i>et. al.</i> , (2007)	JIT, Suppliers Management, Benchmarking, 3PL, Safety Stock Management, Outsourcing.
2.	Omain <i>et. al.</i> , (2010)	Sharing of Information, Efficient Logistics Management, Location Decision, CRM and SRM.

Serial	Name of Author	Dimensions of SCM practices
3.	Choon Ho (2011)	SSP, Lean Practices, Postponement, Sharing of time Information.
4.	Sukati <i>et. al.</i> , (2011)	Sharing of Right Information, SSP and CRM.
5.	Talib <i>et. al.</i> , (2011)	SSP, ICT, Corporate Culture, SRM, Management of Material.
6.	Adebayo (2012)	SSP, CRM, Postponement, Quality Information Sharing.
7.	Woldemichael (2012)	SSP, Lean Practice, Quality Information Sharing.
8.	Valmohammadi (2013)	Suppliers Proximity, EDI, ERP, CRM, Customization, Benchmarking, ICT and Subcontracting.
9.	Mwale (2014)	SSP, CRM, Lean Practices and Information Sharing.
10.	T. Mentzer <i>et. al.</i> , (2001); S. Min and J. T. Mentzer (2004)	Risk and Rewards, co-operation, Process Integration, Shaping up Behavior and Leadership.
11.	K. C. Tan (2001)	Integration of SCM, SC Characteristics, Suppliers' Proximity, JIT, TQM.

Source: Secondary

ORGANIZATIONAL PERFORMANCE AND OPERATIONAL PERFORMANCE

Many researchers defined organizational performance depending on the particular context and industry. Yamin S. *et. al.*, (1999) defined organizational performance as to how well an organization attains its market-oriented and financial goals. There are few more definitions of organizational performance understanding of which is of paramount importance for having a clearer picture about operational performance. Efforts of defining organizational performance kept continuing. Richard et al (2009) argued that organizational performance is comprised of three outcomes; product performance, financial performance and shareholder return. Yet, Mahapatro (2009) defined the same as the ability that an organization has for achieving its goal by efficient management, good governance and dedication. However, the definitions mentioned above, are not exhaustive, but will help understanding operational performance of a given company. Few researchers across the world evaluated different organizations with measuring business performance. Dhar *et. al.*, (2018) argued that irrespective of industry and culture human efficiency, profitability and market assessment are three significant signs of business performance. Laihonen and Pekkola (2016) found that use of performance

measuring system in the industries improve performance of SCM. On the other hand, Gandhi *et. al.*, (2017) argued that SCM practices are positively related with supply chain performance. Few performance models those are available in the literature have been given below:

Performance Models

<i>Serial</i>	<i>Name of Model</i>	<i>Authors, Year</i>	<i>Description</i>
1.	The Performance Measurement Matrix	Keegan <i>et. al.</i> , (1989)	This model deals with four different performances including internal, external, financial and nonfinancial.
2.	Results and Determinants Framework	Fitzgerald <i>et. al.</i> , (1991)	This model measures the performance basing on result and causes.
3.	The Performance Pyramid System	Lynch and Cross (1991)	It deals with Strategic business units, corporate strategy and operations.
4.	Balanced Scorecard	Kaplan and Norton (1992)	It measures vision and strategy, objectives and actions, Alignment of objectives and Feedback and Learning.

<i>Serial</i>	<i>Name of Model</i>	<i>Authors, Year</i>	<i>Description</i>
5.	Integrated Performance Measurement Systems	Bititci <i>et. al.</i> , (1997)	This model is based on measuring competitiveness and financial performance in one hand and on the other hand it also measures activities, revenues, products, costs and factors of production.
6.	The Performance Prism	Neely <i>et. al.</i> , (2002)	This model is comprised of five measures: stakeholders' satisfaction, resources, strategies, input and processes.

Source: Secondary

Various dimensions of operational performance have been evidenced from prior literatures which are also relevant to Bangladesh RMG context. The constructs for measuring operational performance those are used for this study are flexibility, reduced lead time in production, forecasting, resource planning, cost saving, reduced inventory level, product quality and delivery dependability.

SCM PRACTICES AND OPERATIONAL PERFORMANCE: GLOBAL CONTEXT

The effect of SCM practices on Operational Performance in any organization continues to receive considerable attention in recent days as competitions have

become intense. Tan (2002) and Mwale (2012) revealed a positive relationship between SCM practices and organizational performance in studies conducted on different industries. Efficient SCM practices ensures increased market share and higher profits through reducing inventory and cycle time and improving productivity (Hand Field *et. al.*, 1998). Any organization's ultimate aim is to increase organizational performance to a level organization aspires. S. Li (2006) conducted a study in 196 US organizations and found that companies SCM practice have positive relationship with organizational performance. Managers in all industries are using SCM as a strategic tool for improving their operational performance. Minimum contributions managers are looking from SCM are lowest cost of purchase, price reduction, combined with quality and delivery performance. Chizzo SA (1998) used financial measures for comparing and evaluating organizations' behavior for considerable amount of time. On the contrary, many other researchers measured organizational performance considering financial and market criteria (Zhang *et. al.*, 2001). Saeed *et. al.*, (2019) in their research found that two aspects; supply chain agility and product modularity improves firms' responsiveness to the customers and also reduce ultimate cost. Christopher (2013) conducted a study on finding out the impact of SCM practices on operational performance and found a direct relationship with few limitations: not considering mutual interactions among practices and inconsistency of the results. It would be much interesting to find out influence of SCM practices on operational performance in the Bangladesh RMG sector. Anbanandam *et. al.*, (2011) carried out a study in Indian RMG industry and identified few factors those were considered as barrier to SCM collaboration which are information sharing, trust among the supply chain partners, top management commitment, risk and reward sharing and long term relationships. Priscila and Miguel (2011) found a direct relationship between SCM and operational performance in a study conducted with 103 manufacturing companies in Brazil. In one of their studies, Cook and Heiser (2011) considered "information sharing, long range relationships, and advanced planning techniques, leveraging the internet, and supply and distribution network structures as SCM practices". Their study evidenced a direct relationship between selected SCM practices and organizational performance. Furthermore, Chong, Chan, Ooi and Sim (2011) conducted a similar study and also found a positive relationship. Wijetunge and Ranwala (2017) conducted a study on finding out relationship between SCM practices and firms' competitiveness of Small and Medium Enterprises (SMEs) of Sri Lanka and found that there is a positive relationship between them. Kimechwa,

Njeru and Makau (2015) conducted a research on effects of SCM practices on the Banking Sector of Kenya and found a positive relationship between SCM practices and the firms' performance. Aradhana Vikas Gandhi, Ateeque Shaikh and Pratima Amol Sheorey (2017) conducted a similar study in developing countries' context with taking India retail industry as sample and found that SCM practices play an important role in enabling and supporting firms to sustain superior performance as consistent with prior studies.

OPERATIONAL PERFORMANCE STATE IN RMG SECTOR OF BANGLADESH

Performance of RMG industry can be measured from different perspective including financial performance, operational performance and different environmental standard (Kabir, 2007). Achieving targeted operational performance measures including reduced inventory, increased flexibility, reduced cycle time, improved quality, improved delivery dependability, improved capacity utilization and functional efficiency will help Bangladesh RMG industry to remain competitive in the global market. There are not too many studies are available on operational performances of Bangladesh RMG industry. Production floors of most of the RMG companies suffer from uneven load distribution, unnecessary inventories, changeover, untimely flow of information and input materials. They have seen a positive improvement of the operational performance with planned implementation of SCM practices with special mention of Lean Manufacturing.

Implementation of different appropriate SCM practices including lean practice will help improving these operational performances which will ultimately lead to overall improved performance for the industry (V. G. Cannas, M. Pero, R. Pozzi, and T. Rossi, 2018). Lean is defined as the systemic approach for improving the production process with a combination of tools and principles for continuous improvement (J.P. Womack, D.T. Jones and D. Roos, 1990). The operational performance in Bangladesh RMG sector is not at satisfactory level. Increasing labour productivity is the hallmark for achieving desired operational performance. But labour productivity is closely associated with many other factors including adoption of technology, wage incentives, improving working conditions and skill up-gradation Program. Bangladesh needs to work on these enabling elements for improving desired labour productivity. Most RMG companies in Bangladesh less few giant ones are yet to recoup the benefit from implementing SCM practices through improvement of operational performances.

CONCLUSIONS

Implementation of SCM has become imperative for all the organizations across the globe in order to remain competitive. It fosters different performances of the organizations including operational performances. Managers across the world have started considering the SCM as strategic tools for the growth and development of the organizations. It is essential that all the parties involved in the extended SCM need to be equally efficient for recouping target level of performance. Right kind of technology adoption is critical to the successful implementation of SCM in any organization.

Reference

Journal Articles

- Ab Talib, S. M., & Hamid, B. A. (2014). Halal logistics in Malaysia: a SWOT analysis. *Journal of Islamic Marketing*, 5(3), 322-343.
- Alvarado, U. Y., & Kotzab, H. (2001). Supply Chain Management: The Integration of Logistics in Marketing. *Industrial Marketing Management*, 30(2), 183-198.
- Arend, R. J., & Wisner J.D. (2005). Small business & supply chain management: is there a fit. *Journal of Business Venturing*, 20(3), 403-436.
- Anbanandam, R., Banwet, D. K., & Shankar, Ravi. (2011). Evaluation of supply chain collaboration: a case of apparel retail industry in India. *International Journal of Productivity & Performance Management*, 60 (2), 82-98.
- Adebayo, J. O. (2012). Rearing the maize weevil, *Sitophilus zeamais*, on an artificial maize–cassava diet. *Journal of Insect Science*, 12(1), 69.
- Bititci, U., Carrie, A., & McDevitt, L. (1997). Integrated performance measurement systems: a development guide. *International Journal of Operations & Production Management*, 17(5), 522-534.
- Burgess, K., Singh, P. J., & Koroglu, R. (2006). Supply chain management: A structured literature review & implications for future research. *International Journal of Operations & Production Management*, 26(7), 703-39.
- Christopher, M. Kramer. ((2013). Standardized cardiovascular magnetic resonance (CMR) protocols 2013 update. *Journal of Cardiovascular Magnetic Resonance*, 15(91).
- Cooper, M. C., Lambert, D. M., & Pagh, J. D. (1997). Supply Chain Management: More Than a New Name for Logistics. *The International Journal of Logistics Management*, 8(1), 1-14.
- Cooper, M. C., Lambert, D. M., & Pagh, J. D. (1997). Supply Chain Management: More Than a New Name for Logistics. *The International Journal of Logistics Management*, 8(1), 1-14.

- Croom, S., Pietro, R., & Mihalís, G. (2000). European Journal of Purchasing & Supply Management. *Supply chain management: an analytical framework for critical literature review*, 0969-7012.
- Chopra S., Meindl P., & Kalra, D. V. (2001). Supply chain management: Strategy, planning & operation. *New Delhi, India: Prentice Hall*.
- Christopher. M. (2005). Management Development and the Supply Chain Manager of the Future. *International Journal of Logistics Management*, 16(2), 178-191.
- Curwen, L. G., Park, J., & Sarkar, A. K. (2013). Challenges and Solutions Of Sustainable Apparel Product Development: A Case Study of Eileen Fisher. Submitted by *Lisa G. Curwen Department of Design and Merchandising*, 31(1), 32-47.
- Choon, Ho. B. (2011). Long-term Antipsychotic Treatment and Brain Longitudinal Study of First-Episode Schizophrenia. *Arch Gen Psychiatr*, 68(2), 128-137.
- Chizzo, SA. (1998). Supply chain strategies: solutions for the customer driven enterprise, Software Magazine. *Supply Chain Management Directions Supplement*, 4-9.
- Cook, Lori. S. & Heiser, Daniel. R. (2011). The moderating effect of supply chain role on the relationship between supply chain practices and performance: an empirical analysis. *International Journal of Physical Distribution & Logistics Management*, 41(2).
- Chong, Alain. Y. L., Chan, Felix, T. S., Ooi, K. B., & Sim, J. J. (2011). *Organizational/innovation performance via SCM. Industrial Management & Data Systems*, 0263-5577.
- Donlon, J.P. (1996). Maximizing Value in the Supply Chain. *Chief Executive*, 117, 54-63.
- Md. Sajib Hossain, Export Competitiveness of Bangladesh Readymade Garments Sector: Challenges and Prospects. *International Journal of Research in Business and Social Science*, 8(3), 45-63.
- Debnath, S. R., Mazedul, I. (2017). A study on current perspective of Supply Chain Management of Textile & Clothing Industry of Bangladeshi relevant to Future Demand. *International Journal of Scientific & Engineering Research*, 8(9).
- Dhar, B. K., Masruki, R., Mutalib, M., Rahouma, H. M., Sobhani, F. A., & Absar, M. M. N. (2018). Mediating Effect of Organizational Commitment between Islamic Human Resource Practices and Organizational Performance among Islamic Banks of Bangladesh. *The Journal of Muamalat and Islamic Finance Research*, 54-65.
- Fawcett, S. E. S., Benefits., & Barriers. (2008). Supply Chain Management. *An International Journal*, 13(1), 35-48.
- Fitzgerald, L., Brignall, T. J., Johnston, R., & Silvestro, R. (1991). Performance Measurement in Service Businesses. *Management Accounting*, 69(10), 34.
- Flynn, John. J. (2010). Molecular Phylogeny of the Carnivora (Mammalia): Assessing the Impact of Increased Sampling on Resolving Enigmatic Relationships. *Systematic Biology*, 54(2), 317-337.
- Gattorna, J. L. & Walters, D.W. (1996). Managing the Supply Chain: A Strategic Perspective. *MacMillan, London*.

- Giménez, C. T., & Ventura, E. (2003). Supply Chain Management as a Competitive Advantage in the Spanish Grocery Sector. *The International Journal of Logistics Management*, 14(1), 77-88.
- Gandhi, A., Shaikh, A., & Sheorey, P. (2017). Impact of supply chain management practices on firm performance. *International Journal of Retail & Distribution Management*, 45(4), 366- 384.
- Gavrea *et al.*, (2011). Determinants of organizational performance: the case of romania. *Management & Marketing*. 6 (2), 285-300.
- Gandhi, A., Shaikh, A., & Sheorey, P. (2017). Impact of supply chain management practices on firm performance. *International Journal of Retail & Distribution Management*, 45(4), 366- 384.
- Harland., & C. (1996). International comparisons of supply chain relationships. *Logistics Information Management*, 9(4), 35-38.
- Hossain, Md, & Roy, I. (2016). Supply chain management for sustainable RMG growth in Bangladesh. *International Journal of Science and Research*, 6-391.
- Hult, G. T. M. (2007). Strategic Supply Chain Management Improving Performance through A Culture of Competitiveness & Knowledge Development. *Strategic Management Journal Strat*, 28, 1035–1052.
- Habib, G. (2011). The use of pocket-size imaging devices: a position statement of the European Association of Echocardiography. *European Journal of Echocardiography*, 12(2), 85-87.
- Jacobs, F.R., & Chase, R.B, (2018). Operations and Supply Chain Management 5th ed. New York: McGraw-Hill. Jacobs, R.F, Chase, R.B & Aquilano, N.J (2009) Operations & Supply Management, 12th ed. New York: McGraw Hill.
- J. T. Mentzer *et al.*, (2001). Defining Supply Chain Management. *J. Bus. Logist*, 22(2), 1–25.
- Jharkharia, S., & Shankar, R. (2004). IT enablement of supply chains: modeling the enablers. *International Journal of Productivity and Performance Management*, 53(8), 700-712.
- J. T. Mentzer *et al.*, (2001). Defining Supply Chain Management. *J. Bus. Logist*, 22(2), 1–25.
- J.P. Womack, D.T. Jones & D. Roos. (1990). The machine that changed the world: the story of lean production. *Ranson Associates*, New York, 1990.
- Vokurka, R., Zank, G., & Lund, C. (2002). Improving Competitiveness through Supply Chain Management: A Cumulative Improvement Approach. *Competitiveness Review*, 12, 14-25.
- Lummus, R.R. & Vokurka, R.J. (1999). Managing the Demand Chain through Managing the Information Flow. Capturing “Moments of Information”. *Production & Inventory Management Journal*, 40, 16-20.

- Li, Yadong, Wang, X., Zhuang, J., & Peng, Q. (2005). A general strategy for nanocrystal synthesis. *Nature Publishing Group*, 437.
- Nuruzzaman, M. (2007). Genome-wide analysis of NAC transcription factor family in rice. *Gene*, 465(1-2), 30-44.
- Saleheen, F. (2018). Supply Chain Performance Measurement Model: *A Literature Review*, 7(3).
- S. Li, B. Ragu-Nathan., T. S. Ragu-Nathan., & S. Subba Rao., (2006). The impact of supply chain management practices on competitive advantage and organizational performance. *Omega*, 34(2), 107–124.
- S. M. Akterujjaman, & M. H. Ahmad. (2016). Workers' Satisfaction toward RMG Industry in Bangladesh: A Study on Dhaka and Gazipur City. *International Journal of Research in Management & Business Studies*, 3 (2), 22-30.
- Nuruzzaman, M., & Haque, A. (2009). Lead time management in the garment sector of Bangladesh: an avenue for survival and growth. *European Journal of Scientific Research*, 33(4), 617-629.
- Nuruzzaman, M. (2007). Genome-wide analysis of NAC transcription factor family in rice. *Gene*, 465(1-2), 30-44.
- Krajewski, L.J.; Ritzman, L.P.; & Malhorta, M.K. (2013). "Operation Management: Processes & Supply Chain". 10th ed., Pearson Education Limited, Engl &.
- Ellram & Cooper, L. M. (1990). Supply Chain Management, Partnerships, and The Shipper-Third Party Relationship M C. *The International Journal of Logistics Management*, 1(2), 1-10(10).
- Mohanty, R. P., & Deshmukh, S. G. (2005). Supply chain management: Theories and practices. *Delhi: Biztantra*.
- Van der Vorst. (2004). Supply Chain Management: theory and practices. *Dr. Ir. Jack G.A.J. van der Vorst Article*.
- Valmohammadi, C. (2013). Investigating Supply Chain Management Practices in Iranian Manufacturing Organizations. *Operations and Supply Chain Management*, 6(1), 36-42.
- Omain, Siti. Zaleha., AbuBakar, Abdul. Hamid., Abdul, Rahman. Abdul Rahim., & Norzafir, Md. Salleh. (2010). Supply Chain Management Practices in Malaysia Palm Oil Industry. *Melaka*, 7.
- Sukati. I., Hamid, A. B. A., Baharun, R., & Huam, H. T. (2011). A Study of Supply Chain Management Practices: An Empirical Investigation on Consumer Goods Industry in Malaysia. *International Journal of Business and Social Science*, 2(17).
- Woldemichael, B. T. (2012). Dynamic histone marks in the hippocampus and cortex facilitate memory consolidation. *Nature Communications*, 3(991).
- Mwale, M. (2014). Assessment of Peer-Based & Structural Strategies for Increasing Male Participation in an Antenatal Setting in Lilongwe. *Malawi African Journal of eproductive Health*, 18(2), 97.

- S. Min & J. T. Mentzer. (2004). Developing and Measuring Supply Chain Management Concepts. *J. Bus. Logist.*, 25(1), 63–99.
- Shahid Yamin, S. A., Gunasekaran, A. B., & Mavondo, F. T. (1999). Relationship between generic strategies, competitive advantage and organizational performance: An empirical analysis. *Technovation*, 19(8), 507-518.
- Richard, P. J., George, S. Y., & Johnson, G. (2009). Measuring Organizational Performance: Towards Methodological Best Practice. *Journal of Management*, 35(3), 718-804.
- Mahapatra, D. M. (2009). Milking Diatoms for Sustainable Energy: Biochemical Engineering versus Gasoline-Secreting Diatom Solar Panels. *Ind. Eng. Chem. Res.*, 48(19).
- Koh, R., Gurdyal, S., Besra., Mandvi. B, Dale, I., Godfrey, James. M., & Jamie. R. (2007). CD1d–lipid-antigen recognition by the semi-invariant NKT T-cell receptor. *Nature*, 448.
- Kaplan, R., & Norton, D. (1992). The balanced score card-measures that drive performance. *Harvard Business review*, 71-79.
- Khan. S. (2007). Femtosecond modification of electron localization and transfer of angular momentum in nickel. *Nature materials*, 6.
- K.K. Samaddar (2016). Occupational Health and Safety Management in RMG Sector of Bangladesh. *International journal of scientific & technology research*, 5 (12), 176-193.
- Keane, M. P., Roderick J. Phillips. R. J., Burdick, M. D., Hong. K., Lutz, M. A., Murray, L. A., Xue, Y. Y., John A. Belperio, J. A., & Strieter, R. M. (2004). Circulating fibrocytes traffic to the lungs in response to CXCL12 and mediate fibrosis. *The Journal of Clinical Investigation*, 114(3).
- K. C. Tan. (2002). Supply Chain Management: Practices, Concerns, and Performance Issues. *J. Supply Chain Management*, 38(1), 42–53.
- Koh, R., Gurdyal, S., Besra., Mandvi. B, Dale, I., Godfrey, James. M., & Jamie. R. (2007). CD1d–lipid-antigen recognition by the semi-invariant NKT T-cell receptor. *Nature*, 448.
- K. C. Tan. (2001). Supply Chain Management: Practices, Concerns, and Performance Issues. *J. Supply Chain Management*, 38(1), 42–53.
- Keegan, J. J., Hommes, I. J., & Hockessin. (1989). System For using Synchronous Secondaries of A Linear Motor To Baxially Draw Plastic Flms. *United States Patent*. 4, 853, 602.
- Kaplan, R., & Norton, D. (1992). The balanced score card-measures that drive performance. *Harvard Business review*, 71-79.
- Kimechwa, Njeru and Makau (2015). Effects of Supply Chain Management Practices on the Performance of Banks in Kenya: A Case Of Postbank. *International Journal of Computer Applications Technology and Research*, 4 (7). 556-565.

- Kabir, A. S. M. (2007). The End of 'Textile Quotas, Dilemma and Vision in the Garment Sector: A Case Study on Bangladesh, MPRA paper no.7, *University of East London*.
- Laihonen, H., & Pekkola, S. (2016). Impacts of using a performance measurement system in supply chain management: a case study. *International Journal of Production Research*, 54(18), 5607-5617.
- Lynch, H. T., Vasen, H. F. A., Mecklin, J. P., & Meera, K. P. (1991). The International Collaborative Group on Hereditary Non-Polyposis Colorectal Cancer (ICG-HNPCC). *Diseases of the Colon & Rectum*, 34 (5), 424–425.
- Mwale, Fackson. (2012). Link N & Mesenchymal Stem Cells Can Induce Regeneration of the Early Degenerate Intervertebral Disc. *Tissue Engineering Part A*, 20(21-2).
- Neely, A., Bourne, M., Platts, K. & Mills, J. (2002). The success and failure of performance measurement initiatives: Perceptions of participating managers. *International Journal of Operations & Production Management*, 22(11), 1288-1310.
- Priscila, Laczynski., & Miguel, Souza. (2011). Supply Chain Management measurement and its influence on Operational Performance. *Journal of Operations and Supply Chain Management*, 4(2).
- S. Li, B. Ragu-Nathan., T. S. Ragu-Nathan., & S. Subba Rao., (2006). The impact of supply chain management practices on competitive advantage and organizational performance. *Omega*, 34(2), 107–124.
- Saeed, K.A., Malhotra, M.K., & Abdinnour, S. (2019). How supply chain architecture and product architecture impact firm performance: an empirical examination. *Journal of Purchasing and Supply Management*, 25(1), 40-52.
- V. G. Cannas, M. Pero, R. Pozzi, & T. Rossi. (2018). Complexity reduction and kaizen events to balance manual assembly lines: an application in the field. *International Journal of Production Research*, 56 (11), 3914-3931.
- Wijetunge & Ranwala (2017). Do Supply Chain Management Practices Contribute Firm Competitiveness? A Study based on Medium Scale Entrepreneurial Firms in Sri Lanka. *Kelaniya Journal of Management*, 6 (2), 52-67.
- Zhang, Hai-Bao, Yi-Hu, Dong, Lian-Hui, Wang, Jin-Ling, Xu., Xi-Fen, Zhang, & Lian-Hui, Zhang. (2001). Quenching quorum-sensing-dependent bacterial infection by an N-acyl homoserine lactonase. *Nature*, 411, 813–817.

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