

## A Study on Usage of Sustainable supply chain Management and Logistics - Indian Perspective & Practices

<sup>1</sup>Dr. Kimsy Gulhane, <sup>2</sup>Dr. Suvrashis Sarkar, <sup>3</sup>Dr. Prashant Gupta, <sup>4</sup>Dr. Vijayakumar Thota, <sup>5</sup>Dr. Tripti Sahu, <sup>6</sup>Dr. Dinesh Kumar Pandey

<sup>1</sup>Assistant professor, Shri Ramdeobaba College of Engineering and Management, Nagpur

<sup>2</sup>Associate Professor and H.O.D. of Marketing Management, M.E.T. Institute of PGDM, Bandra - West. Mumbai

<sup>3</sup>Associate Professor - E - Business

Prin LN Welingkars Institute of Management Development & Research, (We school), Mumbai

<sup>4</sup>Associate Professor, Training & Placement Coordinator for SOCMS

School of Commerce and Management Studies, Sandip University, Nashik (SUN)

<sup>5</sup>Professor – Mgt, International Institute of Management Studies, Pune

<sup>6</sup>Assistant Professor & HoD – Mgt, R.R Institute of Modern Education, Lucknow

### Abstract

India is the one of the fastest developing country on the planet which fosters a most alluring business sector for globalization. Increment of foreign investment, infrastructural bottlenecks, shortening of item. They face issues connected with choosing and working with the right sustainable supply chain partner (providers, clients and planned operations specialist organizations), empower trust among them and planning the right system of measuring performance. In this paper, we present an ongoing image of operations and Sustainable supply chain Management (SCM) practices with a viewpoint of India. It is the need of great importance that the directors, expert professionals and academicians are tending to operations and production sustainable supply chain practices at the public level. Study focus around sustainable supply chain collaboration and associations, sustainable supply chain structure, facilities network plan, transportation and logistic and the role performed by information technology. The board practices to fulfill the guarantees made by them to the clients precise, convenient and quicker as there is an expanded migration of people in India from one spot to other and development of merchandise this as well as because of fast expansion in the development in the producing, retail, Quick Customer Products and online business websites. prompted fast improvement of courier services organizations. This paper uncovers about the progress of sustainable supply chain management and courier services in India.

**Keywords:** Logistic Management, Courier services, e-commerce, Sustainable supply chain Management.

### Introduction:

India by its size and variety in culture, language, geological variables and improvement in technology is united to a landmass. The extent of movement of people as well as goods are high in India. Indians are delicate to quality related to product and services. The items they buy are top notch and when the opportunity arrives for development of these items, they need a company that comprehends the Indian responsiveness and the interesting necessities of Indians in view of their different social foundations. Companies all around the world developed best practices idea and ideas to know or understand India and Indians with a world point of view for the movement of goods from any place in India to anywhere from India

A courier is an organization that conveys messages, bundles, and mail and so forth starting with one spot then onto the next. Courier are

recognized from conventional mail services by elements like speed, security, signature, specialization, following also, individualization of express administrations, and quick conveyance times for most ordinary mail administrations. Courier administrations work on all scales, from inside unambiguous towns or urban areas, to local, public and worldwide services.

A portion of the enormous dispatch organizations incorporate like DHL, EMS Global, dynamite, UPS, FedEx, and Aramex. These offer services around the world, regularly through a center point and spoke model. Logistic is a business capability liable for arranging and planning the development of products from the source to the objective. The source is alluded as the starting place and objective as the mark of consumption. The development in the manufacturing, retail, Quick Customer Goods and E-commerce websites prompted the ascent of messenger services organizations and

expansion in their numbers. Conveying the shipments on time is one of the greatest pieces of Goods and E-commerce services. Each Internet business site is dependably keeping watch for a decent delivery services that will convey its items at sensible rates. The calculated help system incorporate 3 primary parts; warehousing, e fulfillment and inventory network the executives making it an exhaustive one stop answer for all clients looking for a wholesome services. With well equipped storage at strategic location for providing safe storage having right handling of the varied products for on time deliveries. Well maintained distribution centers take special care of specialty prerequisites like bio drugs, food bundles and really holding your freight is complete safety. Sustainable supply chain Management handles the comprehensive worldwide delivery network from starting place to reason behind utilization, covering each movement and transportation of raw materials, to process and bundling of labor and products, warehousing also, capacity to appropriation across changed channels to arrive at the shopper doorstep securely and on time.

### **Review of Literature:**

(Wager, S.M. 2012) A efficient and effective sustainable supply chain has a view of refined sustainable supply chain plans can get benefits terms of better stock turnover, expenses of cost of goods sold, and return on assets. SCM capability prompts higher sustainable supply chain investor esteem, while there is a higher fit related with better monetary outcomes estimated by return on assets.

(Huo, Wang, Zhao 2014) examined the effect of SCM combination (inward, process-related, and item related) on financial performance. Their outcomes uncover that interior joining and item reconciliation emphatically affect financial performance. Be that as it may, the effect of cycle incorporation on financial isn't upheld by their research.

(Goel, R.K 2021) show that improving sustainable supply chain store network operations execution brings about sure development profits. Study, has uncovered a positive connection among development and monetary result in little and medium-sized ventures. Although scarce, the research demonstrates the monetary advantages related with SCMM.

(Kim, J. Rahee 2012) The capacity to deal with inner and outside issues as the sustainable supply chain turns out to be more experienced, lower internal expenses, and higher consumer loyalty and worth remotely coming about because of powerful sustainable supply chain network can add to authoritative productivity. Financial performance influences the strength of provider connections, reconciliation among vital accomplices and their foundation, common trust, collaboration, and cross-functional work.

(Rao, Holt 2005) stress the significance of laying out a coordinated natural supply chain, which can bring about better financial performance, incorporating concerning net revenues, deals, and portions of the overall industry, as well as work on the intensity of a whole inventory network. Comparable outcomes were obtained by research shows that sustainable supply chain combination is decidedly corresponded with financial outcome.

explains how the advancement of sustainable supply chain cycles ought to be situated towards consumer satisfaction; for example, adaptability and responsiveness of the sustainable supply chain can influence clients' expectation in regards to reaction times, while straightforwardness and perceive ability of request stream can prompt upgraded client experience.

(KIM, B 2002) developed a model to exhibit what SCM decidedly means for the organization in which it was taken on and the providing partners Improvement in sustainable supply chain practices, for example, estimating responsibility regarding item advancement including suppliers, can help organizations gain from and develop the current cycles.

### **Objectives of Study:**

1. To State the evaluation of Global Sustainable supply chain Management.
2. To identify the growth of Sustainable supply chain Management in India.

### **Research Methodology:**

The study is based on descriptive in nature. Both quantitative and qualitative data has been collected from different journals, research papers, reports and websites for the study. Different diagrams, graphs and flow charts has been used for the study.

### **Evaluation of Sustainable supply chain Management:**

In history the courier were generally conveyed the hand and furthermore utilization of different method were taken on like sprinters, homing pigeons and riders riding a horse. Prior to the presentation of modern courier services, foot couriers truly ran miles to their objections. The old Greeks and Romans made use of a class of pony and chariot-mounted dispatches called anabasis to convey messages and orders to long

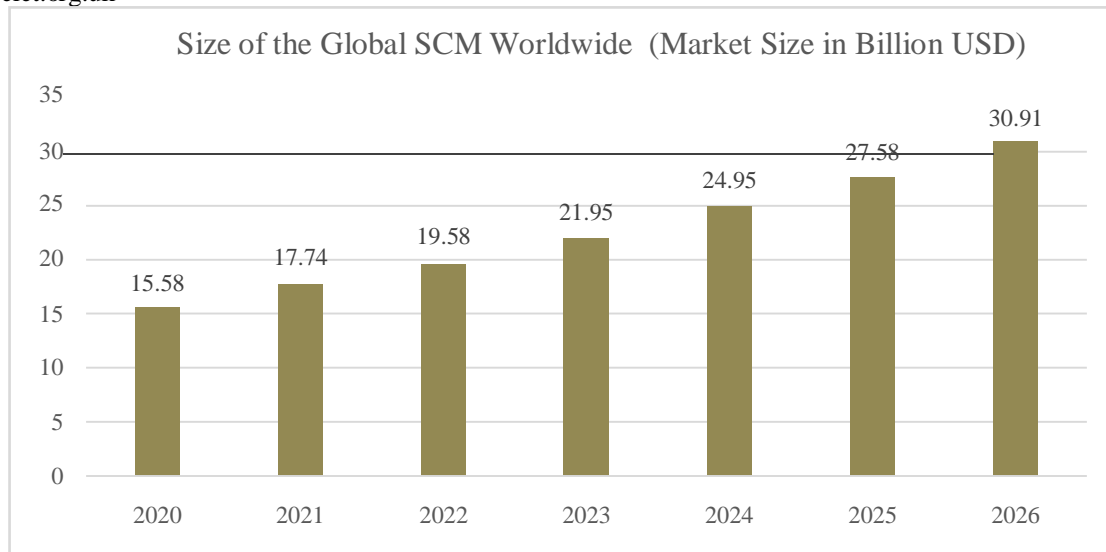
distances. In the Medieval times, imperial courts kept up with their own couriers. As the time elapsed many sorts of services advanced like Bike courier, Relaxed messenger, Normal transporter, Confidential transporter, Strategic dispatch, Expedited delivery, Mail, Mail specialist co-op, Mail services focus, Cruiser messenger, Donkey, Bundle conveyance, Post riders, Telecommunication and so on appeared. At Present in urban communities, there are in many cases bike couriers or

bike dispatches utilized for conveyance and for transfers requiring delivery over more noteworthy distance organizations; they are utilizing seaways, streets, rail routes and airplane. Many organizations who work under an In the nick of time or "JIT" stock technique frequently use on - board dispatches. These are people who can go immediate anyplace on the planet, generally through business carriers.

**Table 1 Evolution of Sustainable supply chainManagement**

S.N.	Era	Description
1	Creation era	The term sustainable supply chainmanagement was first coined by an American industry consultant in the early 1980s. However the concept of sustainable supply chainin management, was of great importance long before in the early 20th century,
2		especially by the creation of the assembly line.
3	Integration era	This era of sustainable supply chainmanagement studies was highlighted with thedevelopment of Electronic Data Interchange (EDI) systems in the 1960s and developed through the 1990s by the introduction of Enterprise Resource Planning (ERP) systems.
4		This era is characterized by the globalization of sustainable supply chainmanagement inorganizations with the goal of increasing competitive advantage, creating more valueadded, and reducing costs through global sourcing
5	Specialization (Phase 1)	In the 1990s industries began to focus on “core competencies” and adopted a specialization model. Companies abandoned vertical integration, sold off non-core operations, and outsourced those functions to other companies.
6	Specialization (Phase 2)	Specialization within the sustainable supply chainbegan in the 1980s with the Phase Two – Supply inception of transportation brokerages, warehouse management, and non asset based carriers and has matured beyond transportation and logistics into aspects of supply planning, collaboration, execution and performance
7	Supply Chain(SCM 2. 0)	Web 2. 0 is defined as a trend in the use of the World Wide Web that is meant to increase creativity, information sharing, and collaboration among users.

#### **Growth of Logistic and Sustainable supply chainIndustry Worldwide (2020 - 2026)**



Source @Statista23

Above diagram shows there is huge growth in sustainable supply chain industry from 2020 to 2026. In 2020 Sustainable supply chain management business was \$15.8 Billion. There will be positively increase in the business and continuously increasing, it was \$19.58 Billion in 2022, \$24.95 billion in 2024 and in 2026 it would be estimated at \$30.91 Billion.

### **Sustainable supply chain Management in India:**

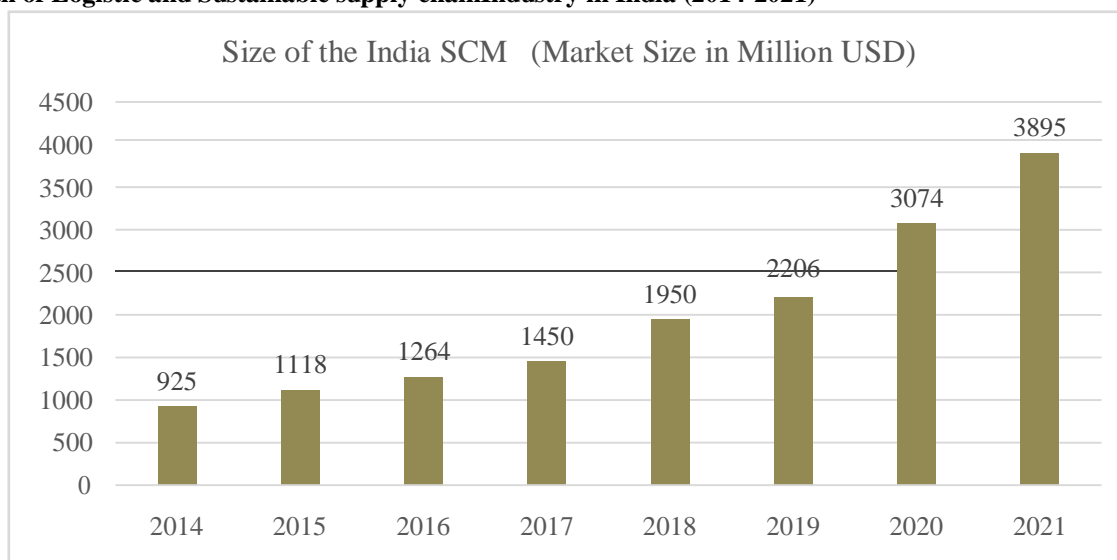
Logistic market in India is supposed to be worth US\$ 307 billion by the schedule year 2022, states a report delivered by Related Offices of Business and Industry of India. India spends around 14.4 percent of its GDP on planned operations and transportation when contrasted with under eight percent spent by the other developing nations, it adds. The above figures show that the logistic companies in India is developing at enormous rate. Cargo and logistic Industry in India can hope to develop at Build Yearly Development Rate (CAGR) of 16 percent before long with an inflow of new speculations that thus will set out new open doors for the logistic sector.

The development in Indian logistic will be driven by the development in the assembling, retail, Quick Buyer Movement and online business areas. In India, road freight comprises around 63% of the complete cargo development comprising of 2.2 million rock solid trucks and around 600,000 light-obligation trucks every year. Road Freight development is supposed to enlist a CAGR of 15% throughout the following five years.

Sea freight comprises of around nine percent of the complete cargo market and is essentially utilized as a significant mode for imports and commodities. Air Freight contains around one percent of the absolute cargo market in India and is projected to enlist around 12.5 percent CAGR throughout the following five years. Worldwide dispatch administrations in India incorporate Xpress Messengers, DHL, FedEx, Bluedart, Ekart, DTDC et al. Aside from these; various local courier services provider also operate in India like Indian Railway, State Road Transport Enterprises, India Post, Agarwal Packers and Movers Ltd, Holder Organization of India Ltd., Place of Patel's, VRL Administrations and so on. Practically these messengers can be tracked any where with the help of internet. Indian Postal Help is another central part and it has around 154,939 mail depots, of which 139,222 (89.86%) are in provincial regions and 15,826 (10.14%) are in metropolitan regions. FM Logistic Asia, illustrated plans of contributing around EUR 50 million (US\$ 56.14 million) in India in the following four years, to add to a superior effectiveness of logistic market in the country.al.

India is right now the hotspot for online business services. With sites like Flipkart, Snap bargain, Amazon In, and Myntra earning respect on a public level, it is inevitable when Web based business takes over web-based retail in India. Web based business has earned such huge respect. Flipkart, India's greatest on the web retailer started with its coordinated operations division in the year 2010 when the organization had acquired a stable balance all over India. Flipkart's Ekart logistic division has even begun offering its logistic administrations to other Online business rivals in the market.

### **Growth of Logistic and Sustainable supply chain Industry in India (2014-2021)**



Source@Statista21

Above diagram shows there is huge growth in sustainable supply chain industry from 2014 to 2021. In 2014 Sustainable supply chain management business was \$925 million. There is positively increase in the business and continuously increasing, it was \$1264 million in 2016, \$1950 million in 2018 and now it is \$3895 million in 2021.

In most recent couple of years, the logistic sector has acquired development. Different new developments have additionally been finished in the logistic sector to work with transportation. Various logistic companies entered in to the market some of them are as follow:

**Indian Post:** Indian Post is definitely one of the most dependable E commerce conveyance administration to date. They have the most noteworthy inclusion and greatest reliability that has been vouched for by their long stretches of services. At present, no other help can beat them on the grounds which they cover. Indeed, even with regards to cost also.

**Logistic :** Logistic Post are as reasonable as a platform can get: It is a division of India Post, the country's postal division. Logistic Post is associated with house to house coordinated factors for the online business industry, miniature, little, medium and enormous organizations as well concerning people. Logistic Posts can be profited straightforwardly or by implication through nearly 150,000 mailing stations across India and conveys to all areas including far off towns. Logistic Post draws qualities from CCI, Indian Railroads, different Indian air transporters and sea freight lines that have concurrences with the Indian government. **Indian Railway:** Indian Railway Catering and The Tourism industry Enterprise positions among the world's fourth-biggest network Logistic companies. During the monetary year 2015-2016, Indian Railway conveyed whopping 1.2 billion tons of cargo across India just on its railway network that covers around 8,500 stations.

Indian Rail lines has the biggest organization of distribution centers and yards across India. Furthermore, it moreover gives coordinated factors administrations to the ocean freight holders.

**Global Vectra Helicorp Ltd:** The organization claims an armada of north of 25 helicopters of grouped makes. The organization has practical experience in offering fundamental strategic help to India's oil and natural gas establishments such as offshore platform and rigs such as airlifting vital equipment, food and medical supplies. Onshore, the organization plays had a critical impact in giving assisting clinical benefits with arriving at remote part of the company.

**FedEx:** FedEx, it has a great delivery service provider and genuinely aggressive costs in the areas it gives its services. In any case, the way that its inclusion region is relatively less FedEx may not be a solid contender for Online business sites. An or more point is that it tends to be utilized for the reasons for extensions to global spaces. Furthermore, with regards to global administrations FedEx is essentially fantastic.

**DTDC:** DTDC has been offering its types of service since the year 1990. DTDC started from India it has extended to a level that, it as of now offers its types of service to more than 240 different nations.

**eCOM Express:** It is one more amateur on the lookout. Ideal for clients are intending to utilize a Blue Dart blend of operations for the reasons for deliveries.

**Blue Dart:** It is one the South Asia's chief dispatch and coordinated express package distribution Organization. They have a really impressive conveyance base in India that comes extremely near the level of services given by India Post.

**The State Road Transport Organization:** which is walking ahead with a few inventive plans for offering better administrations to workers, is probably going to present RTC parcel service. RTC has the transports. RTC has the transports taking special care of the necessities of inside towns where there is no service by private players. The private associations have network up to region communities yet they don't have availability to inside regions which is beneficial for the State Street Transport Enterprise in India.

**Agarwal Packers and Movers Ltd** is one of the main 10 coordinated operations organizations in India laid out in the year 1987. The organizations' differentiated business incorporates Transportation, Avionics Strategies, Pressing also,

Moving (broadly as well as universally), 3PL, ODC Transportation, Warehousing, Home Capacity, Production network, Block on-line Cargo station and other related exercises.

**Gati Ltd:** Gati was established in 1989 and is today prestigious as an express distribution and production network arrangements supplier. It takes care of about 19,000 postal district in India and covers 672 of the 676 district of this country. Moreover, the organization additionally gives airfreight, ocean freight, rail carriage of cargo what's more, warehousing offices, among other logistic services

### Conclusion:

Transport and logistics organization in India are offering added-benefit administrations in the space of road transport, air what's more, sea freight, coordinated factors and customs and sending services with an objective to foster redid, superior grade, large-scale logistical projects for clients to give a clear upper hand.

Organizations are keeping a broad organization of workplaces and stockrooms, specialized help partner, an in house designing group planning altered operations answers for business partner and possessing the large variety of fleet. The domestic and foreign logistic organizations are hopeful about possibilities in the large logistic sector in India, and are effectively making ventures arrangements to further develop profit and smooth out activities.

### References:

1. Huo, B.; Qi, Y.; Wang, Z.; Zhao, X. The impact of sustainable supply chain integration on firm performance: The moderating role of competitive strategy. *Supply Chain. Manag. Int. J.* **2014**, *19*, 369–384
2. Wagner, S.M.; Grosse-Ruyken, P.T.; Erhun, F. The link between sustainable supply chain fit and financial performance of the firm. *J. Oper. Manag.* **2012**, *30*, 340–353.
3. Goel, R.K.; Saunoris, J.W.; Goel, S.S. Sustainable supply chain performance and economic growth: The impact of COVID-19 disruptions. *J. Policy Model.* **2021**, *43*, 298–316.
4. Kim, J.; Rhee, J. An empirical study on the impact of critical success factors on the balanced scorecard performance in Korean green sustainable supply chain management enterprises. *Int. J. Prod. Res.* **2012**, *50*, 2465–2483.
5. Rao, P.; Holt, D. Do green supply chains lead to competitiveness and economic performance? *Int. J. Oper. Prod. Manag.* **2005**, *25*, 898–916.
6. Frederico, G.F.; Garza-Reyes, J.A.; Kumar, A.; Kumar, V. Performance measurement for supply chains in the Industry 4.0 era: A balanced scorecard approach. *Int. J. Product. Perform. Manag.* **2021**, *70*, 789–807
7. Kim, B. Coordinating an innovation in sustainable supply chain management. *Eur. J. Oper. Res.* **2000**, *123*, 568–584.
8. Jitesh Thakkar, Arun Kanda, et al (2011). Mapping of sustainable supply chain learning: a framework for SMEs. *The Learning Organization*, *18*:4, 313–332.
9. J. Morgan and R. Monczka (1996), Supplier Integration: a New Level of Sustainable supply chain Management Purchasing, *120*, 110–113.
10. Yong Lin and Li Zhou (2011). The impacts of product design changes on sustainable supply chain risk: a case study, *International Journal of Physical Distribution & Logistics Management*, *41*:2, 162–186.
11. W. Wilhelm, D. Liang, B. Rao, D. Warriar, X. Zhu, and Bulusu (2005), Design of international assembly systems and their supply chains under NAFTA, *Transportation Research Part E: Logistics and Transportation Review* *41* 467–493.