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From the Desk of Chief Editor & National President

It has been a difficult situation for major global economies for over past few years particularly from the times of Covid 19 pandemic and recent liquidity troubles due to global bank crisis. Though, the issues are being traded efficiently & effectively thus far and the impact of these issues seems to have lowered, but these uncertainties will continue to undermine the confidence of global businesses to spend or expand, thereby impacting the economic growth.

Despite this gloomy environment, International Monetary Fund (IMF) expects India to grow by 5.9% in FY 2023–24 and by an average rate of 6.1% over the next five years. Many market analysts also back this report of IMF on account of high consumer driven growth and increasing upper middle class population with a high propensity to spend and it is this spending capacity of large young population which will boost India’s momentum of growth over the next few years.

Besides above, five pillars required for Indian economy to grow are clearly visible and will support economic growth over next decade or so. Expansion of industry in the areas related to renewable energy, increase in technology cladded efficient and effective logistics & supply chain activities, emergence of a single national market on account of increasing e-commerce activities, greater participation of firms and buyers in using modern financial system superseding regional markets and informal business segment mainly using cash, IT service export which accounts for $ 230 billion revenue making it a 5th biggest exporter of services and infrastructural upgradation coupled with policy reforms.

It is certain that these pillars will support and sustain transformation of India’s economy over the coming years. To fuel economic growth, a lot depends on foreign investments and it has remained modest to around $ 70 billion in 2022-23 on account of drying up of global liquidity due to tighter monetary policies in central banks across industrial countries.

This investment gap should be filled by the government through higher spending on infrastructure and improving the logistics ecosystem so as to bring down the logistics cost and enhance efficiency and attract private investments. Initiatives such as the National Infrastructure Pipeline, PM Gati Shakti, and National Logistics Policy (NLP), among others, are outstanding efforts in that direction.

Emphasis on manufacturing and initiatives such as production-linked incentives to attract investment must continue. At the same time, the India must take advantage of the rising demand for services worldwide. Further, recent innovations in the field of technology like AI, Block Chain, Big Data, IOT, Cloud Computing etc. have changed the way business entities are working at the same time enabling them to control their operations from a remote location. India must reap benefits where it has a comparative advantage and build a robust and efficient ecosystem to bring in more cutting edge technologies in general and SCM in particular.

It is high time that SCM Professionals take advantage of availability of cutting edge technologies to overcome the present day problems and make themselves more relevant to face the challenges of modern business.

I wish all the readers ‘Happy Independence Day’.

H. K. SHARMA
mmr@iimm.org
# MATERIALS MANAGEMENT REVIEW

**Volume 19 - Issue 10**  
*(August 2023)*

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SUPPLY CHAIN PLANNING AND STRATEGIES

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Abstract: Supply chain planning (SCP) is a roadmap. SCP is the process of accurately planning the journey of a material or a product from the raw material stage to the final consumer. The main objective this paper is to enumerate the SCP components and strategies. The various components of SCP such as demand management, supply management, production planning, operations planning and sales planning are discussed. The main tools like sales & operations planning (S&OP), master production schedule (MPS), material requirement planning (MRP), capacity requirement planning, drum buffer rope (DBR) are discussed along with other tools such as just-in-time, inventory management and transportation management. The main software tools used in SCP are also highlighted. Important strategies are also highlighted. The author has also mentioned the strategies adopted by Walgreens and Bob's Discount furniture companies are also highlighted.

Keywords: Drum buffer rope system, supply chain planning process, strategies, tools.

Introduction: Supply chain planning (SCP) is indeed a key activity of supply chain management. It is forecasting customer demand. Supply chain planning is the process of accurately planning the journey of a material or a product from the raw material to the final customer. Supply chain planning is a road map. SCP includes manufacturing management, materials management and working capital optimization. The key components of SCP are: demand management, supply management, production planning, operations planning and sales planning (Krishan Batra, 2023). Table 1 shows the various components of SCP.

Table 1: Supply chain planning components

<table>
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<th>S.No SCP Components</th>
<th>Details</th>
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<tr>
<td>1 Demand management</td>
<td>The process of changing demand patterns using one or more demand options. Demand can be managed with various options. For example, complementary products, promotional pricing, revenue management, backlogs, backorders and stock-outs.</td>
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<tr>
<td>2 Supply management</td>
<td>Supply management is the act of identifying, acquiring, and managing resources and suppliers that are essential to the operations of an organization. It includes the purchase of physical goods, information, services, and any other necessary resources that enable a company to continue operating and growing. Examples of supply chain activities can include designing, farming, manufacturing, packaging, or transporting.</td>
</tr>
<tr>
<td>3 Production planning</td>
<td>Production planning is the planning of production and manufacturing modules in a company or industry. It utilizes the resource allocation of activities of employees, materials and production capacity, in order to serve different customers. A well-designed production plan helps companies deliver products on time, reduce costs and respond to problems.</td>
</tr>
<tr>
<td>4 Operations planning</td>
<td>Operational planning is the process of creating actionable steps that your team can take to meet the goals in your strategic plan. An operational plan outlines daily, weekly, and monthly tasks for each department or employee. The purpose of the Operational Plan is to</td>
</tr>
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provide organization personnel with a clear picture of their tasks and responsibilities in line with the goals and objectives contained within the Strategic Plan.

5 Sales planning

Sales planning are a set of strategies that are designed to help sales teams reach their target sales quotas and help the company reach its overall sales goals. Sales planning helps to forecast the level of sales that the company want to achieve and outlines a plan to help to accomplish the goals.

Supply chain planning process

Supply chain planning processes include the following key steps:

i. Demand planning
ii. Capacity planning
iii. Production planning
iv. Sales & Operations planning (S&OP)
v. Inventory management

Balancing all the above are called as supply chain planning. In SCP, various tools are used to create the balance. Important tools for SCP are:

i. Sales & Operations Planning (S&OP)
ii. Master Production Schedule (MPS)
iii. Material Requirement Planning (MRP)
iv. Drum-Buffer-Rope (DBR) System
v. Just-in-Time (JIT)
vi. Capacity Requirement Planning (CRP)
vii. Inventory management
viii. Transportation management

Sales & Operations Planning (S&OP): S&OP is an integrated planning process that aligns demand, supply, and financial planning and is managed as part of a company’s master planning. S&OP is designed and executed to support executive decision-making related to approving a feasible and profitable material and financial plan.

The objective of the S&OP process is to generate plans for production levels, employment levels, and inventory levels at the minimum cost. An effective sales and operations plan can improve revenues, decrease costs, and increase customer satisfaction.

It involves step by step process. The important steps are:

i. Data gathering
ii. Demand planning
iii. Supply planning
iv. Pre-S&OP meeting
v. Executive S&OP meeting

Figure 1 shows the balancing act of Sales and Operations Planning (S&OP).

![Supply Chain Planning Process Diagram]

Figure 1: Creating the balancing act of Sales and Operations Planning (S&OP)

Balancing demand and supply

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<th>Managing Demand</th>
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<td>Managing Production Capacity- Time flexibility, workforce, seasonal workforce, use of outsourcing, use of dual facilities, production flexibility into production process</td>
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<td>Managing Inventory: Using common components across multiple products, and build inventory of high demand, or predictable demand products.</td>
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<td>Use of aggregate planning to maximize profitability when faced with predictable variability</td>
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(Sunil Chopra & Perter Meindl, 2013)

Master Production Schedule (MPS): Master Production Schedule (MPS) comes part of production planning, in which weekly production plans are specified by individual final product. An MPS links sales demand with manufacturing capacity. MPS is a schedule of finished products that drives the MRP process. The purpose of master production scheduling is to create a realistic plan that minimizes overstock while maximizing on-time delivery. Master production scheduling is the process that helps manufacturers’ plans which products and related quantities to produce during certain periods. Figure 2 shows the flow chart of master production schedule.
Material Requirement Planning (MRP): Material requirements planning (MRP) is a system for calculating the materials and components needed to manufacture a product. It consists of three primary steps: taking inventory of the materials and components on hand, identifying which additional ones are needed and then scheduling their production or purchase.

MRP includes the Master Production Schedule (MPS), Bill of Material, Inventory Status file and Shop floor shop order file. Figure 3 shows the various components of MRP.

Capacity Requirement Planning (CRP): Capacity requirements planning (CRP) is the function of establishing, measuring, and adjusting limits or levels of capacity. CRP is a computerized system that projects the load from a given material plan onto the capacity of a system and identifies under loads and overloads. CRP creates a load profile that identifies under loads and over loads. CRP can produce a load profile for each process or work center in the shop. The load profile compares released orders and planned orders with work center capacity. Figure 4 shows the Capacity Requirement Planning components.

Drum-Buffer-Rope System: Drum, Buffer, Rope is a supply chain technique to define the flow of processes based in pull system of production. Drum is synonymous with the first link of the supply chain which defines the pace of flow or pace of manufacturing which in order is followed by rest of the processes. Figure 5 shows the drum buffer rope methodology.

Besides the S&OP, MRP, MPS, CRP & DBR systems, there are other systems like JIT, Inventory Management and Transportation used in supply chain planning.

Software tools used in supply chain planning
- SAP Integrated Business Planning
- Anaplan
- Blu-Ridge Global
- GMDU Streamline
- IBM Planning Analytics
- SONAR
- Netstock
Supply Chain Planning Strategies: Two cases are highlighted under supply chain planning strategies.

Walgreens: Walgreens is one of the biggest pharmacy chains in the world started investing in forward looking supply chain technology that aggregates consumer data and crunches the numbers to predict future purchasing behavior through the big data and business analytics. This helps the company to reduce excess inventory and reduce costs of warehousing and transportation.

Bob’s Discount Furniture: Bob’s Discount furniture, an US-based furniture retailer has shifted 25-30 percent of their future sourcing out of China due to higher tariffs on goods sourced from China.

Conclusion: Supply chain planning is an important activity in the supply chain management. It is forecasting the customer demand. Supply chain planning is creating a balancing act between supply and demand. The various tools that are used are S&OP, MPS, MRP, CRP, DBR, JIT, Inventory Management and Transportation Management. In a supply chain matching supply with the demand gives lot of challenges to the supply chain managers. Important software tools used are: SAP Integrated Business Planning, Anaplan, Blu-Ridge Global, GMDH streamline, IBM planning analytics, SONAR, Netstock and RELEX.

Supply chain planning strategies are important for better business results. Walgreens has adopted big data and business analytics as supply chain strategy. Bob’s Discount Furniture has adopted sourcing strategy by moving out from China because of high tariffs. Many companies have adopted built buffer along the supply chain, diversification of manufacturing and sourcing network (multiple sourcing), invest in demand forecasting and standardization of processes.

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“ROLE OF SUPPLY CHAIN IN MAKING INDIA BEYOND USD 5 TRILLION ECONOMY BY 2025”.

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The IMF’s (The International Monetary Fund) world economic outlook at the start of year 2023 said that the size of the Indian economy has increased from $3.2 trillion in 2021-22 to $3.5 trillion in 2022-23 and will cross $5 trillion in 2025. In line with respected Prime Minister’s vision, India has commenced its journey into ‘AmritKaal’, a uniquely auspicious period, representing India’s opportunity to herald a new world era. Being an emerging developing country there are still few gaps which India is facing. India is the second-most populous country globally and global GDP and international trade contributions are moderately low, contrary to its population and size. The country lacks numerous societal, economic, and environmental issues compared to the other developed countries in the world.

There are ten key enablers of growth that will impact sectors across the economy and play a critical role in propelling the growth engine: (1) Information Technology and Services Hub where India has the potential to become a services and technology talent hub for the world. (2) Digitalization will democratize e-commerce market (3) Infrastructure of the future thereby lowering India’s high logistics costs, making cargo delivery more effective, economical, and reliable. (4) Entrepreneurship - Start-ups have grown remarkably over the last six years, with India emerging as the third largest ecosystem for start-ups globally. (5) MSME’s - Micro, small, and medium enterprises (MSMEs) are the key players in the manufacturing domain because of their plentiful production output, export, and employment generation. (6) Global workforce where 25% of the incremental global workforce over the next decade will come from India. (7) Healthcare professionals which includes doctors and nursing staff of 6.2 millions from India itself. (8) Sustainable & renewable energy includes sources of wind, solar and water (hydropower). India saw the highest year on year growth in renewable energy additions of 9.83% in 2022. (9) Agriculture - Indian agriculture sector accounts for 18 per cent of India’s gross domestic product (GDP) and provides decent employment to the countries workforce. (10) Supply Chain - Robust long-term vision for India to establish itself as a major player in the global supply chain arena.

Delivering the right product at the right time, at the right place, at the right cost, in the right quantity, of the right quality – this is the precise role of supply chain management as we very well know. Existing Supply chains of today are different from the ones that functioned earlier. They have an important role to play. From resource optimization to seamless and sustainable procurement of raw materials, effective inventory control to demand-supply harmony, efficient delivery to customer satisfaction – supply chain performance is now dependable on each of these components. New Supply chain objectives now requires to link the markets, distribution system, manufacturing and allied processes and the procurement to serve its customers across different parts of the world at lower cost and higher service levels.

Though the outbreak of the Covid pandemic in 2020 and the Russia-Ukraine conflict in 2022 has impacted the world output, increased inflation in several countries and raised uncertainty in the world economy. Reliable supply chains are one of the key drivers of economic growth. From the economic standpoint, for developing countries like India, supply chains create opportunities, augment productivity, improve technology and skills, increase employment, and diversify exports. Long-term business relations ensure more income and uninterrupted revenue.

The role of Supply Chain in making India beyond USD 5 trillion Economy by 2025 is definitely a task for supply chain management stream. To realize this vision, SCM fraternity in India needs to follow pronged approaches to supply chain management.

Understanding Supply chain Process: Resource acquisition, manufacturing, inventory management, demand management, supply management, product portfolio management, and sales & operations planning, are some of the core components of supply chain management.

Supply change management is a detailed and elaborate structure or system used by companies of all sizes across all sectors to handle and manage a host of processes involved between developing and delivering the final product to the consumer. Essentially, supply chain management focuses on aligning end-to-end business processes strategically to help businesses realize the market value while also giving them the upper hand over competitors. Apart from cost reduction, supply chain management aims to optimize operational productivity and efficiency within a company for speedy deliveries and improved customer satisfaction.

According to the government, India is on its way to becoming a member of the international supply chain. If the potential opportunities are embraced and a well-thought-out course of action is devised and successfully performed, it will quickly be catapulted, and further development will follow.

Effective Supply Chain Management with IT and ERP Systems: With evolving customer expectations, businesses must integrate IT with supply chain and logistics to ensure proper coordination between all tenets of the supply chain, right from sourcing and manufacturing to reaching the endpoint – the customer. Effective supply chain management
is key to maintaining a balance between the demand and supply in the economy. The role of IT in supply chain management is so important. There are a lot of uses of Information technology in supply chain management. It is providing the tools which can pick up relevant information, and break it down for proper analysis. Data is pivotal to the operation of the supply chain. Primarily because it offers the base on which the supply chain managers are taking decisions.

Integrated and Coordinated Supply Chain. A supply chain can work efficiently when it is properly integrated and well-coordinated. IT is performing this important task by bringing in multiple technologies and combining them to optimize the supply chain. These technologies are making data collection possible and much easier and more accurate. Ultimately, this is allowing precise and detailed data analysis leading to sound business decisions.

Supply Chain Visibility. Consequently, information builds the whole supply chain visible to supply chain managers. How the information flows from one collaborator to the other and the effect it has on others is used by the managers in creating strategic decisions.

Future of IT in Supply Chain Management. Emerging technologies like Artificial Intelligence (AI) and Internet of Things (IoT) greatly impact supply chain management. The role of technology in supply chain management is important. Technology has made things easier than before that's the reason every organization want to adopt new emerging technology into supply chain management. For example, Blockchain is one such technology that provides data security. So, all in all, the future of information technology in supply chain management is bright. Another example is right & strong Enterprise resource planning (ERP) in organization.

In today's increasingly global and turbulent markets, companies need to adjust quickly to new conditions. The ability to flexibly adjust the business processes, operations, and information flow along the extended supply chains therefore becomes vital for a company's survival and success. Most modern companies, especially large and mid-size ones, have complex organizational structures, with many resources to be controlled and many processes to be managed. Huge amounts of data and information that must be available 24/7. To meet such challenges, various Enterprise Resource Planning (ERP) software suites have been developed to help manage processes, resources and information across a business. Any company or an organization who will not honor the in-depth usage of ERP system will defiantly have to face unidentified aliens in business such as increased inventory, Non-Moving stock, variances, theft, evaporation of profits, lack of standard operational procedure (SOP), imperfect analysis, week inter department data linkage and above all waste of time as well as manpower. An ERP system is a combination of components that integrate people, information and processes comprehensively and flexibly, and allows companies to gain better control of their administrative and operational environment. The market leader in ERP systems is the German company SAP AG, which was one of the first companies to introduce standard software that covers all vital business processes within a company. An ERP system such as SAP provides multiple functional modules to deal with various business functions, for example: Materials Management, Sales and Distribution, Production Planning, Quality Management, Plant Maintenance, Finance & Costing and Human resources.

E-Commerce Supply Chain Management: When most people hear the words "supply chain," they're likely to think of the wide variety of product shortages that became especially problematic during the height of the pandemic. Production shutdowns, shipping issues and other challenges often meant that in-demand products were hard — or impossible — to find. Here E-Commerce took a big revolutionary step and covered activities such as the procurement of raw materials, manufacturing of finished goods, Inventory management, warehousing, order fulfillment and last-mile delivery. E-Commerce supply chain refers to a series of logistics processes involved in running an online store. E-Commerce supply chain management is therefore concerned with running a supply chain in the most efficient and effective way possible. There are numerous techniques and strategies to achieve better efficiency, productivity and profitability in managing supply chain.

The ultimate goal of supply chain management is to cut extra costs while simultaneously delivering your products to customers in a quick and efficient manner. The e-commerce industry is not just limited to setting up a website and selling products online. It includes product configuration, suitable infrastructure, logistics, secured payment gateway, and supply chain management. An efficient supply chain accelerates e-commerce processes to meet customers’ expectations. The key benefits of SCM in E-commerce include:

Reduced Costs: SCM in e-commerce removes various stages of distribution, retailers, and outlets. The elimination of these stages reduces the overall cost of products. The reduced costs give customers a direct advantage when compared to the cost of products available in physical stores. Trade Globally: SCM enables e-commerce businesses to trade globally. An efficient SCM enables e-commerce businesses to import raw material from anywhere and export their finished product to any country easily.

Enhanced Customer Satisfaction: Customer satisfaction is an important factor for the success of an e-commerce business. With an efficient supply chain management in e-commerce, enterprises can easily track demand, the time suppliers will require to fulfill the orders and order goods from suppliers to keep the inventories replenished.

Improved inventory accuracy: Every year, retailers across the globe lose some trillion in sales and costs as a result of mismanagement of inventory. The culprits of this are overstocks, under stocks and preventable returns, much of which can be attributed to a lack of visibility into a business’s inventory.

In this volatile business environment, supply chain managers should consider developing strategies for dealing with the rapid swings that can result from increasing use of e-commerce in a globalized market. As technology, e-commerce, and globalization become more intertwined, buyers and sellers are increasing their connectivity and the speed with which they conduct sales transactions. Thanks to the development of electronic commerce, the most basic of economic transactions—the buying and selling of goods—continues to
undergo changes that will have a profound impact on the way companies manage their supply chains. Simply put, e-commerce has altered the practice, timing, and technology of business-to-business (B2B) and business-to-consumer (B2C) commerce. It has affected pricing, product availability, transportation patterns, and consumer behavior in developed economies worldwide.

**A conceptual framework for Supply Chain Management & Strategic Planning:** The whole path to the company's priorities is established by this technique. Design decisions relate to the supply chain's strategy and structure. Planning decisions are tactical, covering weeks to months, up to a year. Execution decisions relate to the day-to-day operations, and span from hours to weeks. Management will analyze organizational processes and investment areas at this level. Design, planning and execution are the three key phases of SCM.

Organizations need to tap the principles of Supply Chain Management (SCM) to realize the criterion of serving the right customers, finding the right suppliers, and fostering trust with the right partners. Simultaneously Supply chain management (SCM) is also designing, planning, and execution of the materials, information and financial flows across the supply chain processes for different players to provide product and services to the end customers profitably. In short, SCM is about “getting things right”.

**Exports in India’s Economy growth:** Exports are one of the fundamental drivers of growth for any economy. It can influence a country’s GDP, exchange rate, level of inflation as well as interest rates. The possibility of a sharp recovery for the economy can only be realised through a strong focus on exports. The opportunity of India integrating itself into global value chains (GVCs) cannot be allowed to pass. Strong and coordinated policy action, across all levels of governments, is needed to realise this opportunity.

Over the last decade, the world’s perception of India and its capabilities has shifted. For the rest of the world, our nation is becoming an example of a thriving economy. The entire world is waiting for India’s steadfast and consistent efforts to convert the nation into a worldwide leader through its many initiatives. With more policy support, exports can help Indian economy reach the $5-trillion target sooner than expected. As components of both domestic and global economies, a country's exports can have far-reaching effects on businesses and consumers all around the world.

Importance of exports. (a) **Employment.** Growth in exports can create employment. Traditionally export jobs have been in manufacturing industries – an important source of full-time employment, especially in industrial regions. (b) **Economic growth.** Exports are a component of aggregate demand (AD). Rising exports will help increase AD and cause higher economic growth. (c) **Competitiveness.** The relative competitiveness of exports will play an important role in determining the level of exports. If India prices relative to other countries, the India will lose out. Competitiveness is determined by factors such as unit labour costs, inflation, productivity, infrastructure and price of raw materials. (d) **Lower the value of their currency:** Countries can also lower the value of their currency to make their exports cheaper to foreign buyers and therefore increase sales.

**Changing scenario and measures of World class manufacturing (WCM) in Supply Chain:** For years, manufacturing was internally focused and operationally compartmentalized. Before, critical functions such as purchasing, quality control, engineering and other preoccupations were clearly separated to such an extent that invisible ‘walls’ were created between departments. The results of this isolation were concretely felt on products that did not meet customer expectations, not to mention internal operational slags such as losses in time, money, opportunities, etc. The goal of implementing a lean world class enterprise was to improve all aspects of business and capitalize on advances gained from applying technically proven trade methods and principles to be profitable and eventually be globally competitive.

As the manufacturing sectors faces new challenges in the midst of competition, WCM organization strives continuously to improve on the areas of delivery, safety, quality, operating costs, transportation, inventory and profit margins simultaneously, eliminating waste in the production system by applying appropriate tools and techniques at all level with the organizations. In the framework for continuous improvement, companies are pursuing world class status through dominant principles.

**Total Quality Control (TQC)-** in this principle everyone in the organization is involved in improving the product’s quality to meet customer need.

**Total preventive maintenance (TPM) -** With this principle, machines and equipments are maintained so often and so thoroughly that rarely even break down, jam, or not perform during production run.

**Just-in-Time & Inventory management:** JIT principle focuses on the elimination of waste. JIT is an inventory management method in which goods are received from suppliers only as they are needed. The main objective of this method is to reduce inventory holding costs and increase inventory turnover. Inventory management will play a key role as it affects customer satisfaction. Firms need to maintain the delicate balance between carrying too little inventory & carrying too much. Thus in managing inventory, firms need to balance the cost of carrying larger inventories against resulting sales & profits.

**Warehousing:** The present concept of integrated SCM has to focus on all components viz. transportation, warehousing, inventories, information, etc. so as to improve the efficiency of the supply chain which is vital to the economy of the nation. With the vibrant economy, warehousing would be more adaptive, flexible; customers focused and continue to be a key driver to provide single-window logistics solutions.

**Conclusion:** India will become a $5 trillion economy by 2025. To reach this goal, the economy will need acceleration in economic growth momentum beyond baseline expectations. It will need to grow faster than it has in the past decade. Supply chain will play pivotal, crucial and simultaneously important role to achieve the goal. The article highlights some important roadmap towards achieving this goal through SCM perspective.
GOVERNMENT MEASURES TARGETING INDIA’S LOGISTICS AND SUPPLY CHAIN INDUSTRIES

The logistics and supply chain industries in India are currently experiencing a significant transformation, driven by several government initiatives aimed at boosting the sector. Notably, the implementation of the GST and the recognition of logistics as infrastructure status are two critical moves that have been instrumental in driving this change.

Additionally, other initiatives have been put in place to streamline the movement of goods and reduce turnaround times. We discuss some of these below.

- **Dedicated freight corridors**: To facilitate the seamless transportation of goods and commodities across India, high-speed, large-capacity railway corridors known as dedicated freight corridors have been established. These corridors integrate state-of-the-art technology and improved infrastructure, promising enhanced efficiency and effectiveness in the logistics operations.

![Image of logistics infrastructure in India](image)

- **Multimodal logistics parks**: The development of multimodal logistics parks is a strategic step towards providing comprehensive freight-handling facilities. Spread across at least 100 acres, these parks offer access to various modes of transportation, including road, rail, and air. They also provide advanced storage solutions like mechanized warehouses and cold storage facilities, along with essential services like customs clearance and quarantine zones. By reducing freight costs, warehouse expenses, and vehicle congestion, these parks aim to optimize logistics operations and enhance overall supply chain efficiency.

- **Parivahan portal**: To standardize processes and promote seamless information sharing across different locations, the government has introduced the Parivahan portal. This digital platform encompasses SARATHI for driving license processes and VAHAN for vehicle registrations. Both functionalities are consolidated within a single user-friendly mobile application, ‘mParivahan’. This initiative streamlines administrative procedures and provides easy access to information related to registration cards and drivers’ licenses, facilitating smoother logistics operations.

- **Introduction of the e-way bill**: The implementation of the e-way bill system mandates the use of electronic documentation for truckloads valued above INR 50,000. This digital documentation eliminates the need for physical paperwork and state boundary check posts, simplifying inter-state vehicle movement. By reducing turnaround time and bureaucratic hurdles, the e-way bill initiative enhances logistics efficiency and expedites overall supply chain movement.

**Key trends steering India’s logistics performance in 2023**: Technology, data, and infrastructure trends indicate that 2023 is a year of dynamic shifts for the logistics industry. Any period of change and transformation brings with it opportunities for businesses to leverage with the right tools and growth goals. Some of these include adopting cutting-edge technologies, harnessing the power of data, and fostering collaborative digital ecosystems to facilitate supply chain streamlining. These strategies are also creating space for niche start-ups as companies...
seek to outpace competitors and meet the ever-evolving expectations of customers.

**Technological innovation**: The integration of advanced solutions is revolutionizing logistics operations, enhancing efficiency, and unlocking new opportunities. Key technologies shaping the future of logistics include:

- **Artificial intelligence (AI) and machine learning**: AI-powered algorithms and machine learning models enable predictive analytics, demand forecasting, route optimization, and real-time decision-making. These tools empower businesses to optimize their supply chains, improve resource allocation, and deliver enhanced customer experiences.

- **Internet of things (IoT)**: With the proliferation of IoT devices, logistics companies gain greater visibility and control over their assets and inventory. IoT sensors and connectivity facilitate real-time tracking, remote monitoring, and predictive maintenance, enabling proactive and efficient logistics operations.

- **Robotics and automation**: Automation technologies, such as robotic process automation (RPA) and autonomous vehicles, are reshaping warehouse operations and last-mile delivery. Robotics streamlines repetitive tasks, reduces errors, enhances speed, and improves safety, leading to cost savings and increased productivity.

**Data-driven decision making for operational superiority**

In times where data reigns supreme, logistics companies must harness the power of data to drive informed decision-making. By adopting robust data analytics capabilities, businesses can gain actionable insights and optimize various aspects of their operations. We discuss some ways how:

- **Predictive analytics**: Leveraging historical and real-time data, predictive analytics enables businesses to anticipate demand fluctuations, optimize inventory levels, and enhance supply chain resilience. Accurate forecasting minimizes stockouts, reduces inventory holding costs, and improves overall operational efficiency.

- **Supply chain visibility**: Comprehensive data integration and visibility across the supply chain enable end-to-end traceability, proactive issue identification, and prompt problem resolution.

- **Real-time data sharing**: Fosters collaboration, enhances communication, and builds trust among supply chain partners.

- **Robotics and drone technology**: The utilization of robotics and drone technology in logistics is increasing rapidly. The global logistics robots market, valued at US$7.11 billion in 2022, is predicted to reach US$21.01 billion by 2029, driven by a growing need for complex supply chain operations, e-commerce fulfillment services, and adoption of warehouse management software solutions.

Drones have become essential in the industry, providing solutions for various needs, such as surveillance, access to remote locations, urgent deliveries, grade A warehousing, and reverse logistics. Large e-commerce companies like Amazon and Google have integrated delivery drones into their operations. Additionally, DHL and Walmart are experimenting with autonomous systems and robotics.

**ONDC’s technology-driven solution for streamlining the retail supply chain**: The growth of direct-to-consumer (D2C) customers is particularly prevalent in tier 2, 3, 4, and rural sectors. As per industry estimates, the Indian e-commerce industry is expected to grow by 50-60 percent in D2C and new categories by 2030, reaching US$350 billion. This is due to improved digital payment and banking systems and faster internet access. However, meeting the increasing demand for fast and reliable last-mile delivery services is also crucial.

To address this challenge, the ONDC aims to use technology and data analytics to automate and simplify the retail supply chain, connecting suppliers, wholesalers, and retailers. This is expected to create a more efficient, transparent, and effective supply chain where demand is matched to the nearest provider.

**Rise of cross-border e-commerce**: The logistics industry has been significantly impacted by the rapid growth of e-commerce, which has led to an increase in demand for international goods and MSMEs selling internationally. This growth is driven by millennials who make up a large portion of the professional purchase decision market and expect online shopping interfaces. Therefore, efficient and reliable delivery services have become necessary, leading to the rise of cross-border digital markets that have seen significant economic growth.

To meet the challenges presented by cross-border delivery, such as customs and duty laws, language barriers, and payment options, businesses need to
carefully plan their operations. Logistics firms with a robust network and digital infrastructure capable of providing end-to-end solutions and support for cross-border e-commerce will be best suited to serve these customers.

**Embracing digital ecosystems: Collaborative partnerships for success** In today’s interconnected world, logistics success lies in building strong digital ecosystems and forging collaborative partnerships. By joining forces with key stakeholders, businesses can leverage collective expertise and resources to achieve operational excellence in the following ways:

- **Ecosystem collaboration**: Collaboration with technology providers, logistics service providers, and customers fosters innovation, promotes knowledge sharing, and accelerates digital transformation. Collaborative ecosystems enable seamless integration, streamline operations, and deliver superior customer experiences.

- **Supply chain orchestration**: Advanced platforms and digital marketplaces facilitate end-to-end supply chain orchestration. By leveraging these platforms, businesses gain access to a wide network of suppliers, transporters, and service providers, optimizing logistics operations and reducing time-to-market.

**Warehousing**: The warehousing industry is set to grow to US$27.35 billion by 2026 due to increased demand for storage and faster delivery times in tier 1 and tier 2 cities. To support this growth, the government is establishing multimodal logistic parks and other initiatives that connect urban transport to railways, attracting investments from institutional funds and developers.

Private players, such as CCI Logistics, Gateway Distriports, and Transport Corporation of India, have also invested in state-of-the-art facilities for supply chain operations. One important aspect of warehousing is establishing agreements with warehouse service providers that are mutually beneficial and take into account the handling of exceptions and managing unforeseen disasters.

**Green logistics technology**: The implementation of green logistics technology, which includes climate measurement tools, real-time data-gathering tools, **electric vehicles**, green cold chain solutions, electric cargo delivery drones, and logistics resource management platforms, can have numerous benefits like reducing waste, simplifying processes, improving a company’s competitiveness, and being environmentally friendly. Several companies, such as Spencer, Bigbasket, Amazon, Licious, Myntra, and Flipkart, have partnered with Zypp Electric for their last-mile delivery through e-vehicles and e-vehicle fleet management.

Source: www.india-briefing.com

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**BLOCKCHAIN USE CASES: HOW THE TECHNOLOGY IS BEING APPLIED ACROSS INDUSTRIES**

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Reportedly, blockchain technology is going through an adoption curve

A recent report from the United Nations Conference on Trade and Development (UNCTAD) titled “Global Report on Blockchain and its Implications on Trade Facilitation Performance” highlights how blockchain technology has become ubiquitous outside the cryptocurrency domain. Distributed ledger technology, especially blockchain, has now become a transformative force with the potential to impact various industry sectors positively. This is far removed from the origins of blockchain as the underlying technology infrastructure for cryptocurrencies such as Bitcoin. Today, some of the capabilities which enable blockchain to power cryptocurrency-based transactions are also equally critical to the generation, transformation, exchange and verification of data streams produced by global businesses.

Blockchain technology is going through an adoption curve similar to cybersecurity best practices and encryption technology, making it integral to the modern economy. Some successful deployments at
scale provide the catalyst and confidence to the business leaders still deciding on their IT strategies and how to include blockchain. A quick overview of how blockchain is part of the business across various industries would provide insights into how a decentralized, distributed, transparent and immutable data platform can be a game changer.

1. **Finance and Banking**: Blockchain’s impact on the finance and banking sector has been profound. It enables secure and transparent peer-to-peer transactions without intermediaries. Distributed ledgers ensure data integrity and eliminate the need for reconciliation. Blockchain-based platforms facilitate cross-border payments, reducing costs and transaction times significantly. Moreover, smart contract-like systems automate contractual agreements, streamlining processes like settlements, asset management, and trade finance.

2. **Supply Chain Management**: Blockchain technology improves supply chain transparency, traceability, and efficiency. It creates an immutable and auditable ledger of transactions, allowing stakeholders to track the movement of goods from origin to destination. This transparency helps combat counterfeiting, enhance product authenticity, and ensure regulation compliance. Smart contract-like systems enable automated payments, inventory management, and quality control, reducing administrative burden and optimizing supply chain operations.

3. **Healthcare**: Blockchain transforms healthcare by enabling secure and interoperable data exchange among different entities. Patient medical records can be securely stored and accessed, preventing data breaches and promoting patient privacy. Blockchain also facilitates clinical trials, allowing secure data sharing while preserving patient anonymity. Additionally, the technology enables efficient tracking and verification of pharmaceutical supply chains, reducing the risk of counterfeit drugs.

4. **Real Estate**: Blockchain streamlines real estate transactions by reducing the need for intermediaries and improving transparency. Smart contract-like systems automate property transfers, ensuring conditions are met before transactions are finalized. Blockchain enables fractional ownership, making real estate investment accessible to a broader audience. Furthermore, the technology can be used for property title management, preventing fraud and disputes.

5. **Energy and Utilities**: The energy sector benefits from blockchain’s potential by enabling decentralized energy trading and optimizing grid management. Peer-to-peer energy trading platforms allow consumers to buy and sell energy directly, reducing costs and promoting renewable energy adoption. Blockchain facilitates efficient tracking and verification of energy sources, ensuring the authenticity of green energy claims. Moreover, it streamlines billing and settlement processes among energy stakeholders.

6. **Intellectual Property**: Blockchain provides a decentralized and tamper-proof platform for managing intellectual property (IP) rights. Creators can register their work on the blockchain, establishing proof of ownership and timestamping. This technology allows for secure and transparent digital content licensing, distribution, and monetization. Smart contract-like systems can automatically enforce IP rights and royalty payments, reducing disputes and improving efficiency.

7. **Transportation and Logistics**: Blockchain optimizes logistics operations by improving transparency, traceability, and efficiency in transportation. Stakeholders can track the movement of goods, reducing delays and enabling more accurate delivery estimations. Blockchain-based platforms streamline freight documentation, reducing paperwork and improving customs clearance, automating payment settlements, and improving cash flow management for logistics providers.

8. **Insurance**: Blockchain is used in the insurance industry to provide a transparent and secure platform for policy management, claims processing, and fraud detection. Distributed ledgers enable efficient verification of policyholder information and reduce the risk of duplicate or fraudulent claims. Claims settlements can be automated to ensure faster and more accurate payouts. Blockchain also facilitates the creation of parametric insurance products, which trigger automatic payouts based on predefined events or conditions.

Today, tokenless blockchains provide businesses with a way to mitigate exposure to speculative risks while providing compliance with established data regulations. As blockchain technology continues to be adopted, it is critical to have a policy environment that supports this digital transformation which brings about verifiable certification, digitally verifiable credentials and distributed data management. Inevitably, blockchain technology will also be part of AI, IoT and edge computing technology stacks.

Source: [www.financialexpress.com](http://www.financialexpress.com)
India’s 50th GST Council Meeting, held in July 2023, has introduced significant developments and key decisions that impact various sectors. From tax rate changes to exemptions and measures to strengthen the GST implementation, these outcomes have far-reaching implications for businesses operating in India. One notable decision is the imposition of a 28 percent GST rate on gaming, horse racing, and casinos, raising concerns among online gaming companies. On the positive side, the healthcare sector receives exemptions on crucial pharmaceutical imports, benefitting the industry. Measures have also been proposed to enhance compliance, simplify processes, address tax liabilities, and strengthen reporting. This article highlights the key outcomes, providing insights into changes in tax rates, exemptions, strengthening GST implementation, and measures aimed at enhancing compliance.

India’s 50th GST Council Meeting, concluded on July 11, 2023, witnessed significant developments and key decisions that have far-reaching implications for various sectors. Notable decisions include the imposition of a 28 percent GST rate on gaming and gambling activities, which raised concerns among online gaming companies.

On a positive note, the healthcare sector received a boost as the council exempted GST on essential imports of pharmaceutical products. Additionally, the meeting focused on strengthening GST implementation through amendments in tax rates, reporting requirements, and compliance measures. These decisions aim to streamline processes, enhance compliance, and address key challenges faced by businesses under the Goods and Services Tax (GST) system.

In this article, we delve into the key decisions of the 50th GST Council Meeting and their potential impact on businesses in India.

Changes in GST tax rates

GST Council approves rate reduction on four items

- GST rate on uncooked, unfried and extruded snack pellets reduced from 18 percent to five percent.
- GST rate on fish soluble paste will be reduced from 18 percent to five percent.
- GST rate on LD slag is to be at par with blast furnace slag. It has been changed from 18 percent to five percent to encourage better utilization of this product and for environmental protection.
- GST rate on imitation Zari thread or yarn brought down from 12 percent to five percent.

Other changes related to goods

- Exemption from IGST will be provided for personal imports of Dinutuximab (Quarziba) medicine.
- IGST exemption will be extended to medicines and Food for Special Medical Purposes (FSMP) used in the treatment of rare diseases enlisted under the National Policy for Rare Diseases, 2021 for personal imports. The exemption will also apply to FSMP imported by Centres of Excellence for Rare Diseases or on the recommendation of the listed Centres of Excellence.
- Supply of raw cotton by agriculturists to cooperatives will be taxable under the reverse charge mechanism (RCM). Issues related to the past period will be regularized based on the existing interpretation.
- The entry in the compensation cess notification will be amended to include all utility vehicles meeting specific parameters. These criteria include a length of over 4000 mm, an engine capacity surpassing 1500 cc, and a ground clearance of 170 mm or higher. Furthermore, it is clarified through an explanation that “ground clearance” refers to the measurement in an unladen condition.
- Issues related to trauma, spine, and arthroplasty implants prior to July 18, 2022, will be regularized due to genuine interpretational issues.
- Issues related to desiccated coconut for the period July 1, 2017, to July 27, 2017, will be regularized due to genuine interpretational issues.
- The earlier ad valorem rate as applicable on March 31, 2023, will be notified for the levy of Compensation Cess on pan masala, tobacco products, etc., where it is not legally required to declare the retail sale price.
- RBL Bank and ICBC Bank will be included in the list of specified banks eligible for IGST exemption on imports of gold, silver, or platinum.
- Consequential changes in notifications will be made in line with the new Foreign Trade Policy 2023.
• Issues related to GST on plates and cups made of areca leaves prior to October 1, 2019, will be regularized.
• Issues related to GST on biomass briquettes for the period July 1, 2017, to October 12, 2017, will be regularized.

Changes in GST rates of services

GST exemption on satellite launch services will be extended to private sector organizations, including startups, in addition to ISRO, Antrix Corporation Limited, and New Space India Limited (NSIL).

Other changes relating to services

• Goods Transport Agencies (GTAs) will not be required to file a declaration for paying GST under forward charge every year. If they have exercised this option for a specific financial year (FY), it will be deemed as exercised for the next and future fiscal years, unless they file a declaration to revert to the RCM.
• Services supplied by a director of a company in their private or personal capacity, such as renting immovable property, will not be taxable under RCM. Only services supplied by a director as or in the capacity of a director will be taxable under RCM.
• Supply of food and beverages in cinema halls will be taxable as a restaurant service if supplied separately and independently of the cinema exhibition service. When the sale of cinema tickets and supply of food and beverages are bundled together as a composite supply, the entire supply will attract GST at the rate applicable to the exhibition of cinema, the principal supply.

Second report of Group of Ministers (GoM) on casinos, race courses, and online gaming

The Group of Ministers (GoM) has recommended that online gaming and horse racing should be taxed at a uniform rate of 28 percent. The tax will be applicable on the full-face value of bets placed. This means that the tax will be calculated on the amount of money that is wagered, regardless of whether the bet wins or loses.

The GoM has also recommended that online gaming and horse racing should be included in Schedule III of the Central Goods and Services Tax (GST) Act, 2017. This would make them taxable actionable claims, which are subject to GST.

The proposed changes to the GST law would ensure that online gaming and horse racing are taxed in a uniform manner across the country. This would help to level the playing field for businesses in these sectors and would also generate additional revenue for the government.

Measures for trade facilitation

Goods and Services Tax Appellate Tribunal (Appointment and Conditions of Service of President and Members) Rules, 2023

The GST Council has put forth recommendations regarding the rules governing the appointment and conditions of the President and Members of the proposed GST Appellate Tribunal. These recommendations aim to facilitate the seamless constitution and functioning of the GST Appellate Tribunal.

Additionally, the council has suggested that the provisions of the Finance Act, 2023 related to the GST Appellate Tribunal should be officially notified by the Central Government, effective from August 1, 2023. This step would enable the timely implementation of the provisions and ensure the earliest possible commencement of operations for the GST Appellate Tribunal.

Continuation of relaxations and exemption for annual returns in FY 2022-23

The GST Council has recommended the continuation of relaxations provided in the FY 2021-22 regarding specific sections of Form GSTR-9 and Form GSTR-9C for the FY 2022-23. Moreover, to alleviate the compliance burden on smaller taxpayers, the exemption from filing an annual return (in Form GSTR-9/9A) will be extended for the FY 2022-23 as well. This exemption will be applicable to taxpayers with an aggregate annual turnover of up to INR 20 million.

Input services distributor (ISD) mechanism: The GST Council has made recommendations to address certain aspects related to the Input Services Distributor (ISD) mechanism. One of the recommendations is to issue a circular clarifying that the ISD mechanism is not mandatory for the distribution of input tax credit (ITC) of common input services acquired from third parties to distinct persons, as per the current provisions of the GST law.

Additionally, the council has suggested providing clarification on the taxability of internally generated services offered by one distinct person to another distinct person. Furthermore, the council has recommended that an amendment be made to the GST law, making the ISD mechanism mandatory in the future for the distribution of ITC related to such common input services procured from third parties.

Warranty replacement and repair services

The Council has stated that a circular will soon be released to address concerns regarding GST liability and the reversal of ITC. Specifically, it will focus on situations where manufacturers provide warranty replacements for parts and repair services without charging customers any fees during the warranty period. The circular aims to provide clear guidance by stating that manufacturers are not obligated to apply GST on these replacement parts and repair services. Additionally, it will clarify that there is no requirement for manufacturers to reverse the ITC.

Refund related issues

Clarification to be issued on various refund-related issues, including the restriction of refund of
accumulated ITC based on Form GSTR-2B, inclusion of export goods in calculating “adjusted total turnover,” and admissibility of refund in cases where export realization is made after the time limit provided under Rule 96A of CGST Rules, 2017.

TCS liability for e-commerce operators (ECOs)

The Council has recommended that a circular be issued to clarify the TCS liability under Section 52 of the CGST Act, 2017. The circular aims to address situations where multiple ECOs are involved in a single transaction of supplying goods or services.

Simplification of tax invoices for e-commerce and OIDAR services

To simplify tax invoices, an amendment will be made to Rule 46 of the CGST Rules, 2017. This amendment will specify that in cases where taxable services are supplied by or through an e-commerce operator (ECO) or by a supplier of OIDAR (Online Information and Database Access or Retrieval) services to an unregistered recipient, the tax invoice will only require the inclusion of the recipient’s state name, rather than the full address.

Issuance of clarification circulars

To address ambiguity and prevent legal disputes, the issuance of clarification circulars is planned. These circulars will cover a range of topics, including the requirement of e-invoicing for supplies made to government departments, the calculation of interest liability in cases of wrongly availed IGST credit, and the treatment of holding securities of a subsidiary company as a supply of services under GST. The purpose of these circulars is to provide clear guidance and resolve any uncertainties surrounding these issues.

Verification of ITC

A circular will soon be issued to outline a procedure for the verification of ITC in situations where there is a discrepancy between the ITC claimed in Form GSTR-3B and the ITC available in Form GSTR-2A. This verification process specifically pertains to the period from April 1, 2019 to December 31, 2021. The purpose of the circular is to provide clear guidelines on how to address and reconcile any differences in the claimed and available ITC during this specified time frame.

Special procedures and amnesty schemes

To facilitate certain processes and provide relief to taxpayers, special procedures and amnesty schemes will be implemented. Firstly, special procedures will be introduced to enable the manual filing of appeals against orders pertaining to TRAN-1/TRAN-2 claims. Additionally, amendments will be made to allow manual filing of appeals in specific circumstances.

Furthermore, the existing amnesty schemes for non-filers of returns, revocation of registration cancellation, and deemed withdrawal of assessment orders will be extended until August 31, 2023. These schemes aim to provide an opportunity for eligible taxpayers to rectify their compliance-related issues and benefit from certain concessions.

Overall, these measures are being taken to streamline processes, offer flexibility in filing appeals, and provide a window for eligible taxpayers to resolve their compliance-related matters.

Extension of due dates for Manipur

In light of the prevailing law and order situation in Manipur, the due dates for filing Form GSTR-1, Form GSTR-3B, and Form GSTR-7 for the months of April, May, and June 2023 will be extended until July 31, 2023. This extension specifically applies to registered persons in the state of Manipur. The purpose of this extension is to provide relief and accommodate the challenging circumstances faced by taxpayers in the region.

Recommendations for strengthening GST implementation

Mandating e-way bills for intra-state movement of gold and precious stones

Following the recommendations made by the GoM regarding the implementation of the e-way bill requirement for the movement of gold and precious stones under chapter 71, the Council has proposed the insertion of Rule 138F in both the CGST Rules, 2017 and the SGST Rules, 2017. This recommendation applies to those states that wish to mandate the generation of e-way bills for the intra-state movement of gold and precious stones falling under Chapter 71 within their respective states. The purpose of this proposal is to provide a framework for the states to enforce the requirement of e-way bills for such movements and ensure better compliance.

Capacity-based taxation and special composition scheme

In line with the recommendations put forth by the GoM, the Council has proposed several measures. These measures include:

- Issuance of a notification under section 148 of the CGST Act, 2017, which will prescribe a specific procedure to be followed by manufacturers of tobacco, pan masala, and similar items. This procedure will include provisions for the registration of machines and the filing of special monthly returns.

- Insertion of section 122A in the CGST Act, 2017, which will introduce a special penalty for manufacturers who fail to register their machines as required by the aforementioned special procedure.

- The provisions of section 123 of the Finance Act, 2021, which amend section 16 of the IGST Act, will be notified and come into effect from 01.10.2023. Additionally, a notification will be issued under section 16(4) of the IGST Act, 2017, to enforce the restriction of the IGST refund route for exports of tobacco, pan masala, and similar items, as well as mentha oil.

These recommendations aim to establish specific procedures, penalties, and restrictions for manufacturers in the mentioned sectors, with the goal of enhancing compliance, regulating the
industry, and controlling the export of these goods.

Amendments in CGST Rules, 2017 regarding registration

The Council has recommended amendments to the CGST Rules, 2017 in order to strengthen the registration process and address the issue of fake and fraudulent registrations in the GST system. The proposed amendments are as follows:

- **Amendment in Rule 10A**: This amendment will require registered persons to furnish the details of their bank account, in the name and PAN of the registered person, within 30 days of grant of registration or before filing the statement of outward supply (Form GSTR-1/IFT) under section 37 of the CGST Act, whichever is earlier.

- **Amendment in Rule 21A(2A)**: This amendment will introduce a system-based suspension of registration for those registered persons who fail to provide the details of a valid bank account within the prescribed time period under Rule 10A.

- **Insertion of 3rd proviso in Rule 21A(4)**: This amendment will enable automatic revocation of the system-based suspension of registration once the registered person complies with the provisions of Rule 10A.

- **Amendment in Rule 59(6)**: Under this amendment, registered persons who have not furnished the details of a valid bank account under Rule 10A may not be allowed to provide the details of their outward supplies in Form GSTR-1 or using the Invoice Furnishing Facility (IFF).

- **Amendments in Rule 9 and Rule 25**: These amendments eliminate the requirement for physical verification of business premises in the presence of the applicant and provide for physical verification in high-risk cases, even when Aadhaar authentication has been conducted.

Additionally, a pilot project for risk-based biometric-based Aadhaar authentication of registration applicants will be conducted in the Union Territory of Puducherry. The state of Andhra Pradesh has also expressed its intention to participate in the pilot program after its readiness is tested in the states of Gujarat and the Union Territory of Puducherry.

These recommendations aim to enhance the integrity of the registration process, minimize fraudulent registrations, and strengthen compliance in the GST system.

Procedure for recovery of tax and interest in cases of excess output tax liability

Following the recommendations made during the 48th meeting of the GST Council held on December 17, 2022, Rule 88C was introduced in the CGST Rules, 2017 effective from December 26, 2022. This Rule implemented a system-based intimation process for registered persons in cases where their output tax liability, as declared in Form GSTR-1 for a specific month, exceeded the output tax liability disclosed in the return filed in Form GSTR-3B for the same month by a specified threshold.

To further address the issue of non-payment of the intimated amount, the Council has recommended the insertion of Rule 142B in the CGST Rules, 2017. This new Rule will outline the procedure for the recovery of tax and interest in cases where the amount intimated under Rule 88C remains unpaid and the registered person fails to provide a satisfactory explanation.

In addition to Rule 142B, a new form named “GST DRC-01D” will be introduced. This form will specify the manner in which the recovery of tax and interest will be carried out for the outstanding amount as per the intimation made under Rule 88C.

The purpose of these recommendations is to streamline the process of recovering tax and interest for cases where registered persons have not paid the intimated amount, despite no satisfactory explanation being provided.

Mechanism to address ITC differences between Form GSTR-2B and Form GSTR-3B

The GST Council has recommended the implementation of a mechanism to address differences in ITC between Form GSTR-2B and Form GSTR-3B. This mechanism involves a system-based intimation to taxpayers when there is an excess availing of ITC in Form GSTR-3B compared to Form GSTR-2B, exceeding a certain threshold.

To facilitate this mechanism, the Council proposes the insertion of Rule 88D and Form DRC-01C in the CGST Rules, 2017. Additionally, an amendment will be made to Rule 59(6) of the CGST Rules, 2017. These measures aim to reduce ITC mismatches and prevent the misuse of the ITC facility in GST.

Under this mechanism, taxpayers will receive an automated intimation regarding the ITC difference, prompting them to provide explanations for the reasons behind the discrepancy or take necessary remedial actions. The purpose is to promote compliance and ensure proper utilization of ITC in line with the GST regulations.

Enhancing compliance in annual return filing through amendment to Form GSTR-3A

In order to enhance discipline and compliance in the filing of annual returns, the GST Council has recommended an amendment to Form GSTR-3A. This amendment aims to introduce a provision for issuing notices to registered taxpayers who fail to furnish their Annual Return in Form GSTR-9 or Form GSTR-9A by the due date.

By amending Form GSTR-3A, the tax authorities will be empowered to issue notices to registered taxpayers who have not fulfilled their obligation to file the annual return within the prescribed timeframe. This measure intends to improve compliance and ensure that taxpayers fulfill their responsibilities in submitting the required annual return documentation, namely Form
GSTR-9 or Form GSTR-9A, as per the GST regulations.

**Strengthening reporting of OIDAR services and RCM**

The CGST Rules, 2017 are set to undergo amendments to Rule 64 and Form GSTR-5A in order to enhance the reporting requirements for OIDAR service providers. The objective is to enable better tracking of tax payments on a reverse charge basis by registered persons in India for supplies received from OIDAR service providers.

Under the proposed amendments, OIDAR service providers will be mandated to provide details of the supplies made to registered persons in India within their return in Form GSTR-5A. This requirement ensures that accurate information is available to track the due payment of tax on a reverse charge basis by the registered persons who have received OIDAR services.

By enhancing the reporting process and ensuring that OIDAR service providers include the necessary details in their returns, tax authorities can more effectively monitor and enforce the RCM for OIDAR services received by registered persons in India.

**Inclusion of duty-free shop supplies in exempt supplies for ITC reversal**

The GST Council has recommended the insertion of Explanation 3 after Rule 43 of the CGST Rules, 2017. This addition is aimed at clarifying that the value of supplies of goods from duty-free shops located at airport terminals in international airports, made to incoming passengers, should be included in the value of exempt supplies.

With this amendment, supplies made by duty-free shops to passengers arriving at international airports will be considered part of exempt supplies under GST. Consequently, the ITC claimed on such supplies will need to be reversed.

**Prescribing compounding amount for offenses under Section 132**

The CGST Rules, 2017 will be amended to insert sub-rule (3A) in Rule 162. This sub-rule will prescribe the compounding amount for various offenses under section 132 of the CGST Act, 2017.

The compounding amount will be determined as follows:

- **Minimum amount:** 50 percent of the tax involved, subject to a minimum of INR 10,000.

- **Maximum amount:** 150 percent of the tax involved, subject to a maximum of INR 30,000.

The compounding amount will be payable in addition to the tax, interest, and penalty that is already due. The proposed amendment to the CGST Rules is a welcome move that will provide businesses with a mechanism to regularize their GST compliance without facing criminal prosecution.

**Consent-based sharing of information of registered persons under GST**

The Council has proposed to insert Rule 163 in the CGST Rules, 2017 to provide for the manner and conditions of consent-based sharing of information of registered persons available on the common portal with other systems. This includes “Account Aggregators” (AAs), which are entities that will be notified by the government to receive and share this information.

The information that can be shared includes:

- Name, address, and PAN of the registered person
- GSTIN
- Taxable turnover
- Details of supplies made and received
- Details of tax paid and due

The sharing of information will be done with the consent of the registered person. The AAs will be required to use the information for the purposes of providing financial services to the registered person, such as credit scoring and loan approvals.

The proposed amendment is aimed at improving the efficiency of the GST system and making it easier for businesses to access financial services.

**Clarification on place of supply**

The proposed amendment to the IGST Act will clarify the place of supply in respect of the supply of goods to unregistered persons. Currently, the place of supply of goods to unregistered persons is the location of the supplier. However, this can lead to confusion and disputes, especially in cases where the supplier and the recipient are located in different states.

The proposed amendment will clarify that the place of supply of goods to unregistered persons will be the location of the recipient. This will help to ensure that the correct amount of GST is collected on these supplies and that taxpayers are treated fairly.

**State level coordination committee**

The proposed formation of a State level coordination committee will help to facilitate knowledge sharing and coordinated efforts on GST matters. This will be especially beneficial in cases where there are cross-border transactions or where there are disputes between the state and federal GST administrations.

The committee will be composed of GST officers from both state and federal GST administrations. This will ensure that all stakeholders are represented and that the committee is able to make decisions that are in the best interests of all taxpayers.

**IT system reforms**

The proposed IT system reforms will help to combat GST fraud through system-based reforms. This will include strengthening the registration process, utilizing third-party data for risk management, and controlling the flow of fake ITC. The reforms will also help to protect the GST revenue and ensure that the system is fair to all taxpayers.

Source: www.india-briefing.com

### Footnotes

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**Materials Management Review**
INDIA IS BECOMING PART OF GLOBAL SUPPLY CHAINS
HERE ARE THE FACTS AND OPPORTUNITIES

Supply chain dynamics around the world are undergoing a major transformation

The Covid-19 pandemic caused several bottlenecks in global supply chains, leading to logistical delays. This led to a new wave of diversification in supply routes and manufacturing hubs.

For the past few decades, American and European companies have invested heavily in China, attracted by its low labour and production costs, as well as the considerable and growing size of its domestic consumer market. However, this is now changing.

While China continues to be critical to global value chains, companies are gradually shifting their focus to countries like India.

All of this, in tandem with the rapid adoption of e-commerce, offers a unique opportunity for India to become a leading manufacturing and supply chain hub.

Here are the facts you need to know about the changing supply chain reconfiguration.

#1 The China-plus-one strategy

The gradual shift towards India, as a global supply chain hub, is not a new approach. It comes from a global business strategy referred to as China-plus-one. The term is not new and was coined way back in 2013.

According to China-plus-one strategy, companies must avoid investing only in China. Instead, they must aim to diversify their businesses to alternative destinations.

Investing in Small Companies Offer Huge Potential Long-Term Growth for Early Movers

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While the need for diversification was felt before, it only came to fruition after the pandemic.

In 2021, Australia, Japan, and India jointly launched the Resilient Supply Chain Initiative (RSCI) to diversify supply chains by developing well-planned industrial clusters.

In July 2022, a group of 18 economies, including India, the US, and the European Union, unveiled a roadmap for establishing collective supply chains that would be resilient in the long term.

The roadmap also highlights steps to counter supply chain dependencies and vulnerabilities.

#2 India is a well-integrated supply chain market but has a relatively less well-established manufacturing sector

India is regarded as an integral part of the global supply chain on the back of its diversified corporate environment and inexpensive and skilled labour.

Apart from this, the country enjoys strong macroeconomic fundamentals and access to vast resources with an expanding market of 1.3 billion people.

However, the country faces some roadblocks on its journey to becoming a global supply chain leader. When compared to other supply chain diversification options, such as the Association of Southeast Asian Nations (ASEAN) pact of countries, India has a relatively less well-established manufacturing sector and is less well-integrated into the regional economy.

Moreover, the country is stifled with underdeveloped infrastructure. However, the tide is turning.

#3 The government is leaving no stone unturned to put India on the global supply chain map

Along with earnest policy reforms in the logistics and infrastructure sector, the government is also targeting to ramp up manufacturing in the country.

In March 2020, the government approved a new incentive program called the Production Linked Incentive Scheme (PLI) specifically for Large-Scale Electronics Manufacturing.

However, in the course of two years, this scheme has been extended to fourteen sectors, including automobile, steel, and pharmaceuticals. The scheme will ensure efficiencies, create economies of scale, enhance exports, provide a conducive manufacturing ecosystem, and make India an integral part of the global supply chain.

Companies in the private sector are making changes following this. The Vedanta group plans to invest of US$15 bn over the next 5-10 years to make displays and semiconductor chips in India.

Dixon Technologies, one of India’s leading manufacturers of electronics, under the PLI scheme, has set up a manufacturing facility to expand its mobile phone production capacity by 20 m units.
Value Stocks

Some stocks are inflated way beyond their true value. Instead of buying such overvalued stocks... you should look for value stocks.

Because these value stocks have limited downside... but good upside potential over the long term.

And the great news is... one segment of the market contains many such stocks.

Want to know more about it?

#4 There is a clear thrust towards reviving capital spending in infrastructure that bodes well for manufacturing sector

Just last year (2022) the government announced a capital expenditure target of Rs 7.5 tn for financial year 2023, up from Rs 5.6 tn announced in financial year 2022.

Despite having the world's second-largest road and rail network, the government is expanding its infrastructure including road, rail, and port connectivity.

The government has already ramped up its focus on improving logistics with a 15-20% reduction in transport costs and travel time following the introduction of the Goods Services Tax or GST nationwide. And now, with the introduction of the National Logistics Policy (NLP), it aims to further strengthen supply chains across the country.

Announced in September 2022, the NLP policy is a comprehensive effort to enhance the efficiency of the logistics ecosystem in India.

The NLP strives to change the way the logistics sector operates. It focuses on boosting infrastructure and connectivity, optimising resource utilisation, and encouraging private-sector investment. All this should culminate in declining logistics costs, from 14% of GDP to 9-10%.

#5 The government is also upbeat about bilateral trade pacts and Free Trade Agreements (FTAs) with several countries.

While the FTAs with the UK and Canada are in the pipeline, India has already signed trade agreements with UAE and Australia, furthering strengthening its position as a manufacturing hub.

Not to forget - India and the EU have also restarted talks for a comprehensive Free Trade Agreement after nearly a decade.

With substantial regulatory initiatives in tow, the government is undertaking concerted steps to ensure the country snags the position of a global supply chain leader.

India’s logistics sector should grow from a US$ 410 bn market in 2022 to US$ 566 bn by 2027, implying a CAGR of 6%.

But this rising logistics tide that comes from the paradigm shift in the global supply chain is bound to lift many other boats.

Now that you know the important facts, let's look at the opportunities that this transition offers investors.

#1 The manufacturing sector will be a big beneficiary of this transition.

The recent developments testify to the growing confidence in India as a manufacturing hub in Asia. These include Apple Inc's decision to manufacture its iPhone 14 in India, Amazon's decision to set up its first production line for its TV Firestick in India, and IKEA's plans for a 48,000 square-metre shopping centre in the northern region.

In a recent development, a key Apple Inc. supplier has begun making components for AirPods in India. This marks a significant step in the US tech giant’s push to expand production in the country.

VIP, the largest luggage manufacturer in the country is also gradually shifting its raw material sourcing from China to India, while ramping up its domestic manufacturing space.

Gokaldas Exports, one of the largest manufacturers and exporters of apparel in India, is capitalising on the China plus one opportunity by expanding its capacities across existing and new facilities.

#2 The pharmaceutical sector also shows promise in the wake of India replacing China as a global supply chain hub

India’s pharmaceutical industry picked up steam following China’s environmental crackdowns of 2017. Thereafter, it picked up during the pandemic when India proved more resilient to supply chain disruptions. All signs suggest the sector’s upward trajectory is likely to continue.

India’s government pledged US$1.3 bn to promote domestic drug production. Meanwhile, shakeups in the global pharmaceutical supply chain are making it look less appealing to have production limited to China.

#3 The chemical sector seems well-poised to fire

Chemical exports from India cover all major markets. The Indian chemical industry is expected to grow at a CAGR of 7-8% during 2020-25, to reach US$160 bn, accounting for 3% of the global chemical industry. This will be driven by demand from the aromatics, performance plastics, agrochemicals, and fibre intermediates end-use segments.

India is well-positioned to be an alternate source of supply to the global chemical industry with permission for 100% FDI in the sector, dedicated investment zones, availability of raw materials, and a large domestic talent pool.
According to a report by KPMG, Reliance Industries Ltd (RIL) has established almost a dozen petrochemical manufacturing plants all over India, which bring in revenue of over US$ 24.5 bn, while others like Galaxy Surfactants have established plants overseas that bring in revenue of approximately US$ 400 m.

#4 The upcoming years of transforming India will also see greater use of new-age technologies

The usage of drones and technology in logistics is already here. Along with AI (artificial intelligence), ML (machine learning), automation is key to optimising and automating core logistics processes.

The Tata group chairman, N Chandrasekharan firmly believes that this development is a huge opportunity for India. Here’s what he had to say –

- We are extremely well placed to reimagine the future and reimagine every industry due to our tech-strength. This will really help us to fix the structural problems we have seen in this country.

But this is not just about preparing for the domestic industry. This is also for playing a big role globally in every industry.

#5 The agriculture and the automobile sector will also experience a tremendous boost, thanks to savings and increased demand

Around 16% of India’s agricultural production is wasted at different stages of the supply chain, according to the Central Institute of Post-Harvest Engineering and Technology.

So once the country optimises its resources on the back of a strong infrastructure network, the wastage will come down.

Continued investments in the infrastructure space requires the country to offer last mile connectivity. This is likely to propel the demand for automobiles in the near future, giving the sector a much needed boost. The Automotive Mission Plan 2016-26 targets 3x growth for the automotive industry and aims to establish India as a manufacturing base and an export hub. The plan also seeks to promote the advancement of the auto ancillary sector ecosystem in India.

Following this, automotive brands like BMW, Mercedes Benz, Ford, General Motors, Nissan, FIAT, John Deere, CAT among others have located their International Procurement Offices in India.

In conclusion

India may not have realised its potential for investments and growth in manufacturing, logistics, and supply chains. But today’s new realities dictated by geopolitics and economics is undoubtedly transforming the playing field.

The government’s policy thrust is adding impetus to India’s competitiveness and is set on making it a global supply chain hub.

So, can the country manage to pull it off? Only time will tell.

Disclaimer: This article is for information purposes only. It is not a stock recommendation and should not be treated as such.

Source: www.equitymaster.com

HOW GOVT’S SUPPORT MEASURES FOR MSMES CAN FACILITATE LARGE-SCALE CREATION OF JOBS

SAKET DALMIA, PRESIDENT
PHD CHAMBER OF COMMERCE AND INDUSTRY (PHDCCI).

Ease of doing business for MSMEs: The role and potential of MSMEs particularly the micro enterprises assumes importance in terms of generating incremental job opportunities for securing social stability, eradicating poverty and curbing migration from rural to urban locations.

Ease of doing business for MSMEs: Micro, Small and Medium Enterprises (MSMEs) are the economic and employment backbone of the developing economies. In India, apart from agriculture, a major part of employment generation is done in the MSME sector, which has been significantly contributing as a major partner to the socio-economic development process. Presently, the MSME sector consisting of 63 million units provides employment to over 113 million persons – the highest next to agriculture.

MSMEs are also important for fostering and strengthening the startup ecosystem. They are the catalyst for new ideas to breed. The startup entrepreneurs are being encouraged to become the drivers of economic growth that will have the potential to pull the marginalized people of India out
of poverty. As we know, the entrepreneurial route is the most desirable route to create higher employment opportunities and hence all those persons who choose the enterprise path need all the support and encouragement from government, financial and other agencies.

In the backdrop of rising demand for job opportunities due to a large number of young persons entering the job market every year and diminishing job opportunities in government entities and public sector units, it is essential to invent and implement newer areas of job creation models and in this context, the role and potential of MSMEs particularly the micro enterprises assumes importance in terms of generating incremental job opportunities for securing social stability, eradicating poverty and curbing migration from rural to urban locations.

In order to create a large number of incremental job opportunities in the country, multiple strategies and policy measures need to be taken by the government. Since MSMEs have the largest potential for job creation, the under-mentioned support measures by the government will greatly help in over-turning the job situation and facilitating large-scale creation of incremental jobs:

**Incubation and Mentorship Programmes**

Establishing more incubation centres and mentorship programs can nurture entrepreneurial talent and guide MSMEs in their initial stages. These programs should offer mentoring, business development support, access to networks, and assistance in securing funding. Additionally, collaborations with successful entrepreneurs, industry associations, and academic institutions can create a robust ecosystem for new enterprise creation and MSME growth. For this purpose, an innovative model of an integrated support system should be established for the creation of new business enterprises. The model should hold the promise of achieving multi-faceted goals of sustainable economic development and generation of additional employment opportunities by way of promoting entrepreneurship and setting up of new business enterprises.

**Linkage with the MUDRA Credit scheme for assured availability of finance**

MUDRA has emerged as a game changer in the field of microfinance. All such trained persons at the Livelihood Incubation Centres should be automatically linked with the MUDRA financing scheme in order to help these incubates access loans for their businesses. It will in turn also strengthen the MUDRA scheme since trained entrepreneurs adequately prepared by the Incubation centres would prove to be more robust and sustainable in running their businesses and meeting repayment commitments. Further, the credit limit under the MUDRA loan should also be enhanced from the existing ceiling of Rs 10.0 lacs to Rs. 25.0 lacs due to the change in the definition of MSMEs.

**Improving Startup India Ecosystem**

Startup India program is a good initiative of the government, the primary objective of which is the promotion of startups for the generation of employment and wealth creation. The scope of tax incentives and other concessions given to startups under the Startup India scheme needs to be widened to include all startups and new business enterprises registered as MSMEs and all such new enterprises need to be given tax holidays and exemptions from filing returns for a period of first 3 years.

**Venture Funding support to Startups**

The Startup India program of the government has been very successful but it lacks integration with the funding agencies. Startups recognized by the government need seed funding support to establish and scale up to be able to raise financial resources on their own strength.

It is, therefore, desirable that seed funding support should be provided to all those startups which are recognized by the government. In addition, the Fund of Funds scheme of Rs 50,000/ crore launched by the government through NSIC should also provide venture funding to such startups on a priority basis as they have already been recognized for their growth potential by the government.

**Rationalization and Simplification of Labour Laws**

The government’s efforts to codification of 44 Central labour laws into 4 codes – pertaining to Wages, Industrial Relations, Social security and Welfare and Safety and Working conditions in order to simplify and ease in filing documents is a major step forward. It is desirable that adequate flexibility should be given to the Industry to devise the terms of employment of workers for example in the case of Employees’ State Insurance, the government could introduce optional ESI or Medical Insurance coverage. Simplification of Employees’ State Insurance, Provident Fund and other labour laws can be implemented for MSMEs. The condition of a certain number of employment from within the State should also be dispensed with.

With the above policy support and incentives, it is certain that we shall be able to create a large number of jobs in the country.

**Views expressed are the author’s own.**

**Source:** Newspaper  

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SUPPLY CHAIN MANAGEMENT
SUMMIT - 2023

Introduction: ‘Supply Chain Management Summit 2023’ was held on 18th June 2023 at Northern University Bangladesh, Dhaka. The ‘Supply Chain Management Summit 2023’ provided a platform to industry experts, academicians and supply chain professionals to share their experience, knowledge and latest developments in the field of logistics and supply chain with the students from home and abroad so as to propagate the research activities in supply chain management.

The inaugural session witnessed the presence of distinguished dignitaries and guests from the academia, industry and government sectors.

Welcome Speech was delivered by Prof. Dr. Nazrul Islam, Pro-Vice Chancellor, Northern University Bangladesh.

Guest of Honour, Sh. H. K Sharma, National President, Indian Institute of Materials Management (IIMM), India. Sh. Sharma elaborated about the importance of Supply Chain Management for modern businesses with particular focus on Public Procurement.

Special Guest, Prof. (Dr.) Goutam Sengupta, Vice Chancellor, TIUWB & Joint Chairman, CRIMM, India highlighted the relevance of supply chain for the various businesses and various sectors and the importance of collaboration in academics with Bangladesh.

Special Guest, Prof. (Dr.) Abu Yusuf Md. Abdullah, Honorable Chairman, BOT, NUB Trust & Chairman, Northern Education Group, Bangladesh expressed great happiness on organizing the SCM summit and for signing of MOU between CRIMM, India and TIU West Bengal and Northern University, Bangladesh.

Chief Guest, Dr. Mashiur Rahman, Hon’ble Economic Affairs Advisor to the Prime Minister, People’s Republic of Bangladesh highlighted the excellent relations between India and Bangladesh and collaboration with India in various fields which will benefit both the countries.

Prof. Dr. Anwar Hossain, Vice Chancellor, Northern University Bangladesh expressed happiness on organizing the great SCM Event that will benefit students, industry, professionals in SCM and will give a boost to economic activity in Bangladesh.

One of the significant highlights of the event was the signing of a Memorandum of Understanding (MoU) between the Centre for Research in Materials Management (CRIMM), India, and Northern University Bangladesh (NUB) for the establishment of a proposed Centre of Excellence (CoE) for Supply Chain Management.

The signing of the MoU signifies the commitment of CRIMM and NUB to foster research, innovation, and knowledge exchange in the field of supply chain management.

The proposed Centre of Excellence (CoE) for Supply Chain Management aims to become a leading hub for research, training, and consultancy in the field. It will provide a platform for industry-academia collaboration, promoting knowledge transfer, and facilitating the development of cutting-edge practices in supply chain management. The CoE will focus on addressing challenges faced by businesses in optimizing their supply chain operations and enhancing overall efficiency and competitiveness.

Technical Session - 1: SAP and Digital Supply Chain Management

The technical session was chaired by Prof. Dr. Mamun Habib from School of Business & Entrepreneurship, IUB by introducing the topic and the distinguished speakers.

Prof. (Dr.) Goutam Sengupta, Vice Chancellor, TIUWB & Joint Chairman, CRIMM, India elaborated upon the integration of SAP and digital technologies in supply chain management. The session aimed to explore the opportunities provided by SAP and its various modules such as SAP ERP, SAP SCM, and SAP S/4HANA, and digital solutions for Bangladesh and discuss the concept of digital supply chain management.

Prof. (Dr.) Kisor Roy delivered a talk on “Digital Supply Chain.” He discussed the transformational impact of digital technologies such as IOT, AI, Block Chain and data driven supply chain ecosystem. He also highlighted the benefits of digital supply chain management, including real-time visibility, improved customer experience, and enhanced decision-making capabilities.

Further, Mr. Nquib Khan, elaborated about closely intertwined SAP and digital supply chain as SAP provides a comprehensive suite of software solutions specifically designed to optimize and digitize supply chain operations. Here are some key discussions on SAP and digital supply chain

Prof. (Dr.) Mamun Habib, session chair concluded the session highlighting the importance of integration of SAP solutions into digital supply chain management practices.

Technical Session-2: Marine Supply Chains - Opportunities in Bangladesh

Technical Session -2 of the ‘Supply Chain Management Summit-2023’ focused on the topic of marine supply chains. The session aimed to explore the opportunities in marine supply chains in Bangladesh and highlight fellowship opportunities provided by CRIMM.

Dr. Ziaul Haq Adnan, School of Business & Economics,
North South University Bangladesh chaired the session. Commodore Mohammad Abdur Razzaq, Ndc, Psc, (Rtd.), MPhil, Bangladesh Navy presented on “Marine Supply Chains - Opportunities in Bangladesh.” He discussed the importance of marine supply chains in the context of Bangladesh, considering its geographical location and abundant water resources.

Dr. Paramita Sen, Associate Professor, TIUWB and Member BOG, CRIMM shared insights on “CRIMM Fellowship Opportunities.” She explained the fellowship programs offered by CRIMM, providing opportunities for researchers and professionals to engage in advanced studies and research in the field of supply chain management. Dr. Sen highlighted the benefits of CRIMM fellowships, including access to state-of-the-art facilities, expert guidance, and networking opportunities, which can contribute to the professional growth and development of individuals in the supply chain industry.

Mr. Ejazur Rahman, CEO, International Supply Chain Education Alliance (ISCEA), Asia, shared his expertise and perspectives on marine supply chains and their global significance. He provided insights into the trends and challenges faced by the maritime industry and discussed the role of technology, sustainability, and regulatory frameworks in shaping the future of marine supply chains.

Technical Session-3: Public Procurement Strategies and Sustainable Supply Chain

The Technical Session-3 chaired by Prof. Dr. Sarwar Morshed, Ahsanullah University of Science and Technology in Dhaka, Bangladesh and focused on the important topics of public procurement strategies and sustainable supply chain management. The session aimed to throw light on the strategies for effective public procurement and discuss the challenges and opportunities for growth.

Sh. H. K. Sharma, National President of the Indian Institute of Materials Management (IIMM), shared valuable insights on public procurement strategies. He discussed the importance of transparency, fairness, and accountability in the procurement process. Sh. Sharma emphasized the need for effective supplier selection methods, contract management, and monitoring systems to ensure successful public procurement. He emphasized upon strategies being employed in Public Procurement to reduce corruption, lead time, delivery schedule dispute resolution etc. He also highlighted the significance of leveraging technology and digital platforms like Government e Marketplace (GeM) to streamline the procurement process and achieve better outcomes.

Prof. Dr. Goutam Sengupta, the Vice Chancellor of TIUWB and Joint Chairman of CRIMM, focused on the strategies required for the growth and sustainability of the supply chain industry in the post-pandemic period. He discussed the challenges faced by the industry during the pandemic and how it highlighted the importance of building resilient and agile supply chains. Prof. Sengupta emphasized the need for diversification of suppliers, adopting advanced technologies like blockchain and AI for supply chain optimization, and fostering collaboration and partnerships among stakeholders for a sustainable and robust supply chain ecosystem. He presented an article on SAP on Opportunities for Bangladesh.

As the Supply Director for the Bangladesh – Sri Lanka Cluster at Reckitt Benckiser, Mr. Mohammed Zia Uddin provided valuable insights from his industry experience. He shared practical examples and case studies highlighting the challenges faced in ensuring sustainability in the supply chain and discussed the role of companies in driving sustainable practices through responsible sourcing, ethical procurement, and reducing the environmental impact of their operations.

Prof. Dr. Sarwar Morshed, as session chair concluded the session by elaborating the intersection of public procurement strategies and sustainability within the context of supply chains.

Technical Session-4: People Centric Supply Chain, Supply Chain Resilience, and Agile Supply Chain Management

The technical session on People Centric Supply Chain, Supply Chain Resilience, and Agile Supply Chain Management was chaired by Dr. Saad Hasan School of Business and Economics, United International University, Bangladesh.

Mr. G.K. Singh, Former National President, IIMM and Addl. Joint Chairman, CRIMM, highlighted about importance of supply chain resilience. He emphasized the need for organizations to build resilient supply chains to withstand disruptions and uncertainties. Mr. Singh discussed the key elements of supply chain resilience, including risk assessment, contingency planning, supplier diversification, and the adoption of appropriate technologies. He also elaborated about requirement of proactive approach in identifying and addressing vulnerabilities in the supply chain.

Prof. Dr. Ekramol Islam, Professor & Treasurer, Northern University Bangladesh explained about the concept of people-centric supply chains. He highlighted the significance of considering the human factor within supply chains and emphasized the need for organizations to prioritize the well-being and development of individuals involved. Prof. Islam discussed how people-centric approaches can lead to improved collaboration, increased employee satisfaction, and enhanced overall supply chain performance. He stressed the importance of creating a positive work culture, empowering employees, and fostering long-term relationships with supply chain partners.

Mr. AKM Nurol Huda, Chief Supply Chain Management Officer (Former), Bengal Group of Industries, Bangladesh, shared his vast experience with practical examples and real-world experiences to support his insights.

Dr. Saad Hasan, session chair concluded the session with emphasis upon relevance of academics and industry experience in bettering the modern supply chain.

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HOW AI WILL STRENGTHEN THE SUPPLY CHAIN INDUSTRY IN INDIA

MILIN STANLY IS THE CONTENT & RESEARCH ASSOCIATE AT INDIA AI.

Milin believes in the vast possibilities of AI that aids in shaping a country’s overall development.

According to a data by World Economic Forum, AI expenditure in India increased over 109% in 2018, totalling $665 million and it is expected to witness a CAGR surge of 39% in 2025, reaching an astounding amount of $11,781 billion, adding $1 trillion to India’s economy by 2035.

The use of Artificial Intelligence in the supply chain is expected to stay and create huge waves in the coming years. According to Gartner, supply chain organisations expect the level of automation in their supply chain processes to double in the coming five years. Global spending on IoT platforms is predicted to grow from $1.67B in 2018 to $12.44B in 2024, attaining a staggering 40% compound annual growth rate (CAGR) in seven years.

In the present digital world, increasing productivity by reducing uncertainties is the priority in the industry. Furthermore, the rising expectation of supersonic speed and operational efficiencies further highlights the necessity to harness the power of Artificial Intelligence in the supply chain industry.

AI in India: India has witnessed magnificent AI adoption growth for the last few decades, with the highest AI adoption rate of 45%, even during the pandemic. According to a data by World Economic Forum, AI expenditure in India increased over 109% in 2018, totalling $665 million and it is expected to witness a CAGR surge of 39% in 2025, reaching an astounding amount of $11,781 billion, adding $1 trillion to India’s economy by 2035.

The Indian government’s NITI Aayog has proposed a focused approach to ensure the involvement of the public sector in AI adoption in specific priority sectors such as agriculture, healthcare and infrastructure etc.

Along with the other industries that the pandemic has transformed, logistics has demand. As a result, various domestic tech start-ups and SaaS companies are stepping forward for AI adoption to provide better add-ons to supply chain and logistics solutions for enterprises across India.

AI and supply chain: Speed in decision-making. Speed in reducing the cycle times. Speed in overall trade development. The use of Artificial Intelligence in supply chain management is making history. The quick adoption of AI & ML has immensely contributed to the surge in production and smooth supply chain establishment. With a sudden increase in demand for Indian goods globally and the increased consumption of the e-commerce ecosystem, the need was established for an efficient supply chain process which was later intensified during the pandemic.

AI will play a significant role in automation and providing accurate insights in a short period, enabling more smart business decisions with an effort to bring down the logistical costs that are currently 14% on par with the world. The better implementation of a robust AI application is expected to not only strengthen India’s trading ecosystem but also boost the economy on par with the global supply chain standards.

Given below are a few of the effects of AI in industry.

- **Cost efficiency**: Along with boosting efficiency and ensuring no error operations, AI in the supply chain also decreases costs by reducing the manpower in the process. Thus, the resource wastage caused by human error is resolved. This paves the way for a gradual and long-term reduction in the need for working capital which helps in making more profit in the business and helps the manufacturers to sell their products at competitive prices.

- **Inventory management efficiency**: Inventory management has become a major challenge for manufacturers nowadays. Manually maintaining the inventory parallelly keeping an eye on the track of all items and raw materials used needs a lot of attention and effort. At the same time, they are prone to errors as well. Here the application of AI can help the manufacturers in automating the entire process by identifying the item stocks, generating real-time orders and maintaining a better stock every time as demand increases. It will help them reduce excess downtime in the business.

- **The timely delivery**: Reducing the human intervention itself makes the process swifter. Each second is more valuable in a world which demands quick deliveries and real-time updates than any other factor. Therefore, the process of automation aids in saving valuable time that is spent on unnecessary tasks and thus speeds up the work.

In a country like India, it is essential to establish a robust end-to-end technologically driven supply chain and logistical system in order to arise as a top logistical hub in the world. As AI frequently revives the traditional way the supply chain industry works, successfully implementing AI technologies will be a game changer for the Indian economy.

Source:indiaai.gov.in

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GREEN SMART IOT-BASED SUPPLY CHAIN MANAGEMENT

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The concept of “Green Smart IoT” has expanded in recent years as a new form of sustainable development and represents a model that incorporates all alternative approaches to improving the quality and performance of a business in order to better interact between production and service space and customers. The modern business environment deals with data, and this has created many challenges and opportunities. New information sources provide opportunities for new applications to improve the quality of business activities and their relevance to modern life. Business data is usually about the interactions between humans as well as the types of machines and tools that, in addition to their complexity, are a concern for privacy and security.

There is a great deal of information and financial interactions in the relationships between different parts of the business and the people involved in different parts of the supply chain through Internet-based systems as well as a variety of smart phones and tablets. Route analysis data is used to indicate the desired route, depending on the current location and destination. The most advanced routing systems take real-time traffic into account and predict the best route by predicting different route traffic using random timespatial fields, which use past traffic data for forecasting. IoT is one of the key components of a sustainable ICT infrastructure that is introduced because of its high potential to promote environmental sustainability. The IoT, as a social human technology, leads to dramatic environmental and urban technological changes in complexity and diversity. Big data capability has been a key factor in implementing new IoT applications. Overall, the development of IoT, as a computational paradigm and analytical process of big data, promotes sustainable smart business initiatives and applications in the environmental field of advanced countries.

IoT enables the integration of digital and physical structures and provides a completely new class of applications and services that should be used with respect to the stability of the environment. This reveals the importance of concepts such as the green IoT. On the green IoT, sensors, devices, applications, and services are portrayed in terms of energy efficiency. In the domain of green and sustainable smart businesses, increasing the volume of data generation is beyond imagination, and the vast amount of information available in different areas is of great value. Therefore, they can be used by planners and IT professionals to promote environmental sustainability. Despite increasing research on IoT and urban development data related programs, the bulk of the work is primarily aimed at economic growth and quality of life in smart cities and there has been little attention given to the green applications of IoT in business. Therefore, the main research question to be considered is: “How can the information landscape of sustainable smart businesses be enhanced by using IoT and big data processing programs with emphasis on environmental sustainability? Since there is always a shortage of innovative solutions based on IoT applications that can make an effective contribution to sustainable environmental development. This framework is based on the creation of big data (generated by IoT) with an emphasis on being green process. This framework illustrates the components of the green IoT-based supply chain implementation in a transparent manner. With this framework, effective points can be identified and by changing the influential parameters, it has made optimal decisions to sustain the environment for the supply chain. This research provides a basis for researchers to develop analytical frameworks for future research. The proposed framework can be developed and evaluated in empirical research and will lead to deeper studies in the field of sustainable intelligent systems.

The term of IoT was first introduced by Kevin Ashton in 1999. Using the IoT, everyone, plants and even lifeless objects (such as machines) can have digital identities for themselves. The Internet is now connecting all people. But with the help of IoT, all objects can be connected, managed and controlled using apps on smartphones and tablets. In fact, the IoT is a new concept in the world of information technology that provides the capability to send data through communication networks such as the Internet. The use of these technologies can also play a significant role in the growth of intelligent smart systems. Now a days, businesses have paid much attention to this issue. Because the IoT approach enhances the interoperability between objects as well as objects with humans, and with the help of such an approach, new services will emerge. Various fields, such as e-health, e-commerce,
and cloud-based production, have been transformed by the IoT. IoT is one of the most important ways to generate big data. Using this data, useful models can be created to optimize different business models. Therefore, acceptance of IoT has many potential benefits. These benefits include improving operational processes, creating value, reducing costs and minimizing risks resulting from the flexibility created by IoT. The IoT is built on the backdrop of applications that have created key empowerment for technology. These technologies include Radio-Frequency Identification (RFID), wireless sensors, smart technologies and nano technologies. These applications enable real-time monitoring and control of changes that occur in the physical state of the connected objects. **Figure 1** shows the IoT ecosystem. Many research points to various uses of the IoT. All technologies in the health system can be continuously tracked and monitored using technologies such as identity recognition and communication capabilities on the IoT. The use of IoT in the supply chain has also been the subject of much research. IoT offers many solutions for tracking, observing and managing supply chain challenges. IoT technologies can collect process and distribute data related to this chain. The use of the IoT for safer production in mines is another area of research. IoT technologies can detect the occurrence of a mine accident and provide the necessary warnings. On the other hand, using accident data can predict the occurrence of the accident and improve mine safety. IoT also plays an important role in the transportation and logistics industries. The greater the number of physical objects with RFID or sensors, the more logistics and transport companies can monitor the movement of objects from source to destination. Many other studies have also addressed the link between IoT and smart cities and environments. For this reason, the environmental applications and greenness of these technologies can be of great importance. This term, using IoT technology, becomes a more powerful concept. IoT involves the massive use of expected network and number nodes in the future. Therefore, there is a need to reduce resources to implement all network elements and the energy consumed for their operation. Today maintaining the ideal energy consumption rate has become one of the most important challenges in IoT research. Therefore, Green IoT (G-IoT) is always essential to achieve lower energy consumption and to become a modern environment. To this end, all the key technologies associated with the G-IoT must be taken into account. These technologies include green tags, green sensing networks and green internet technologies. These technologies are embedded in the lifecycle of the IoT and help sustain them. The life cycle of the IoT is illustrated in **Figure 2**. One solution to achieving green RFID is to reduce the size of RFID tags and thus minimize the amount of non-degradable material. In other research on green RFID, algorithms for RFID inventory with energy saving and optimization have been proposed. In addition, in order to achieve a Green Wireless Sensor Network (WSN), different techniques have to be considered that have been mentioned in various studies. These techniques include:

- The sensor uses the energy required to operate and then placed idle or sleep.
- Use energy-saving techniques.
- Use efficient routing techniques to reduce mobility energy consumption.

In the case of green internet technology, hardware and software should be considered, where the hardware solution produces devices that have less energy without reducing performance. There are many applications to the G-IoT, such as Green Smart City, Green Smart Factories, Green Smart Healthcare and Green Smart Logistics. In the following, we examine the green supply chain that encompasses many of these applications.

**Green IoT**: The concept of sustainable smart business has emerged from important global trends, namely, the dissemination of sustainability and the spread of ICT. **Green Supply Chain Management**: Since the issue of environment was linked to the economy and countries have come to the conclusion that environmental
protection can increase productivity, different approaches have been taken to realize these technologies, one of which is the latest, the Green Supply Chain Management (GSCM) approach. The idea of green supply chain management is to eliminate or minimize waste, which as an important innovation helps the organization to develop strategies to achieve common profit and market goals by reducing environmental risks and enhancing environmental efficiency. The main drivers for green supply chain adoption are laws and regulations that dictate compliance with environmental issues. Other drivers of using the green supply chain can be increased capacity for transportation, recycling and reusable packaging, reduced use of resources (water and energy), compliance with environmental standards. All interactions in the supply chain can provide valuable information for analysis and decision making. IoT, as one of the most important sources of big data generation, plays a significant role in these interactions. Organizations gain competitive advantage by improving the environmental role of IoT and by adhering to environmental laws and standards, enhancing customer knowledge and reducing negative environmental impacts on their products and services. Since the supply chain is one of the most important organizational units and covers a large range of organizational processes from supply and supplier relationships and then to manufacturing processes, ultimately to sales, distribution and customer relationships, so considering environmental parameters in the supply chain can play an important role in the sustainability and greening of human life environment. Therefore, adopting an investment strategy to improve the environmental performance of the supply chain will bring many benefits such as saving energy, reducing emissions, eliminating or reducing waste, creating value for customers and ultimately enhancing productivity for companies and organizations. Due to the importance of the issue, the issue of GSCM has been studied from various aspects. Some believe that supply chain greening, in addition to its environmental impacts, can also have a number of positive economic and operational implications and increase the efficiency of organizations. Other studies have also suggested that the use of green technology in the supply chain, in addition to creating competitive advantage, can give the organization more flexibility and increase profitability. In some papers, the role of IoT in the supply chain is also mentioned and even models have been created to make the supply chain smarter base on IoT. In the following, the IoT-based green supply chain is examined and analyzed.

The present research is applied in terms of research (considering its general purpose, which is to identify, discover and explain the indicators and effective components in the IoT-based smart supply chain process) and the method of qualitative content analysis has been used in it; Because narrative data paints a more natural and realistic picture than numerical data. In order to extract the data in this research, literature review as well as review and evaluation of experts’ opinions have been used. The experts in question were supply chain activists as well as information technology activists. In the present study, in-depth interview tools were used to collect data. First, the general question was, what are the characteristics of an IoT-based smart supply chain? Then, based on the answers provided, the following questions are asked: To check the validity of the data, the following measures were taken: 1) some of the final findings were provided to experts to review the researchers’ perceptions and analysis, 2) data analysis and results were provided to several experts to express their expert opinion on data analysis and results, and 3) in order to increase the verifiability of the interviews, notes were taken. The data obtained from the interviews were analyzed using the thematic analysis method. Thematic analysis is a systematic approach to reduce and manage large volumes of qualitative data without losing context, immersing oneself in data, organizing, summarizing, and focusing on data interpretation.

**Green IoT Based Supply Chain Framework:** Sustainable supply chain emphasizes all processes of supply chain from supply to distribution with a view to energy efficiency and other environmental solutions based on ICT, IoT, and big data analytics. The results of these processes cover a variety of subject areas, including applications, sensor technology, data processing applications, and sustainable computing models. In its fullest sense, the smart supply chain is a chain of physical, social and economic smart infrastructures ensuring that businesses are focused on key features such as smart economy, smart mobility, smart people, smart environment, smart activity and smart management in a sustainable environment. Strategic use of new technologies and innovative approaches to increase efficiency and competitiveness are other features of this chain. Objects, people, processes, and devices communicate with each other through an Internet-connected infrastructure in the IoT supply chain and generate a large amount of information. The data sources for generating big data in the IoT-based smart supply chain are shown in Figure 3. The combination of smart supply chain and sustainable supply chain is less well known in the current definitions. This term refers to an innovative supply chain that uses information and communication technologies and other tools such as exploring big data from IoT to improve business quality, efficiency of operations, services and competitiveness to meet the needs of current and future generations, taking into
account economic, social and environmental aspects. Since big data has very high diversity, variety and growth rate, traditional analytical systems are not suitable for their management. This means that big data processing involves the use of tools (classification, clustering, regression and other algorithms), techniques (data mining, machine learning, statistical analysis, etc.) and technologies that it is beyond the range of analytical methods used in extracting useful knowledge from a large volume of data for accurate and rapid decision making with the aim of increasing insight.

In the context of sustainable smart supply chain, big data analytics refers to a suite of sophisticated software applications and database systems run by highly computing machines and capable of handling large data. Research on the uses of IoT and big data is active in the realm of smart businesses and is mainly related to economic growth and quality of activities. But the role of IoT and big data applications in promoting environmental sustainability in the field of smart green businesses as a holistic approach to development has rarely been addressed to date. In addition, IoT-based green supply chains have addressed the challenges posed by environmental sustainability arising from the disparity of ICT-based solutions with emphasis on green information and functional approaches. Given all that has been said, creating a framework for integrating the information and physical aspects of sustainable smartbusinesses is essential. However, there is always a need to strengthen supply chain information using IoT as well as big data in order to increase their contribution to environmental sustainability. Therefore, dealing with complex mechanisms and patterns involved in the interaction between the environmental and physical systems of advanced smart businesses is crucial and these interactions affect the environment. However, in order to make an effective connection between the IoT supply chain as well as the green supply chain, first the key indicators that affect the green supply chain should be found. According to literature, the key performance indicators can be selected as shown in Table 1. As can be seen, the main places of influence of these indicators have also been identified. Given these performance indicators and the extent to which IoT data is used effectively in effective locations, a framework can be proposed to implement green IoT-based supply chains.

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<th>Supply Chain Sector</th>
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<td>Green purchasing</td>
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This framework is created by emphasizing the four-layer architecture of IoT implementation. Generally, these four layers respectively, include data acquisition, data refinement and analysis, data processing, and ultimately data integration and use (Figure 4). Therefore, the various sources of data involved in the supply chain must be collected, stored, processed, analyzed and integrated into operations, functions and plans in the field of environmental sustainability (with emphasis on key green indicators) and then the data should be shared. Processes associated with knowledge discovery include selection, pre-processing, modification, exploration, interpretation and evaluation. Data mining processes include information comprehension, data preparation, modeling, evaluation and deployment. These two processes are involved in areas related to environmental sustainability and their aim is to discover new knowledge or exploit large populations. Discovered or extracted knowledge includes information functions intended for decision making, decision support, and automated decision making. Information functions are used for real-time and strategic decision-making in the form of control, automation, optimization and management.

Figure 5 shows a framework for deploying large-scale data processing using IoT technologies implemented on the cloud or in the fog in the green smart chain. These technologies include sensors, data warehouses and repositories, data processing platforms and cloud or fog computing models. In fact, this framework illustrates the effective link between input data and their green processing using IoT and their place in the supply chain. A review of the literature reveals that frameworks for
smart cities using IoT have already been presented. Since a dedicated framework for the implementation of IoT-based supply chain and with the emphasis on sustainability and greening not previously provided, this framework can be very useful. In this framework, sensor data from different domains of the supply chain, which are collected, integrated, pre-processed and converted based on key performance indicators of the green supply chain, using data mining and machine learning techniques for model building patterns, pattern recognition, correlations are used to automate, support, and make decisions in operations, plans, and other supply chain activities.

Cognitive analysis is intended to identify key conceptual themes in a sustainable green supplychain model that emphasize the use of IoT and big data processing in relation to environmental sustainability. These include sensor technologies, data processing platforms, computational models, and data-driven applications related to the various components of the supply chain. The main parts of this framework are described in Figure 5.

Sensors and other communication devices such as tablets, smartphones have a direct relationship with the data sources in the supply chain. Therefore, these valuable data can be used through these tools as well as a variety of real and virtual transactions to improve environmental sustainability in the supply chain. Sensor data is available in a variety of formats, and there are various ways to capture and store this data. The extracted data have a large volume and their production speed is extremely high. At the same time, because they come from a variety of sources, their diversity is also high. As a result, these data are big data and need their own analytics tools. By interacting with these data and key performance indicators in the green supply chain, effective factors on environmental sustainability can be deduced and their performance improved. Some of these improvements can be demonstrated in traffic control, monitoring and optimization of fuel consumption, reduction of pollution caused by the use of industrial machines, energy optimization, and so on. To achieve this goal, it is necessary to use specific analytical tools in the big data range. In recent years, cloud and fog computing have gained a lot of attention and become popular in the world. Therefore, by expanding distributed and networked computation on extracted and refined data in order to increase environmental sustainability, the possibility of optimizing processes as well as improving system performance and thus optimizing decision making is increased. One of the most important benefits of this framework is to provide a transparent process of implementation of IoT-based supply chain with an emphasis on environmental sustainability and identifying a well-established path for implementation. Accurate communication between data entry pathways as well as identifying the location of impact can guarantee optimal performance at the optimal time.

The framework presented in Figure 5 has been provided to 30 supply chain professionals after repeated design and review. In this regard, a five-level Likert scale questionnaire was used to evaluate the experts’ opinions. The results of the questionnaires confirmed the validity of the framework. Cronbach’s alpha for the questionnaires using SPSS software was 0.9 which indicates good reliability of questionnaires.

![Figure 5. Green IoT-based supply chain implementation framework.](image)

IoT is a new form of large-scale applications that, due to its operational performance, have received considerable attention from sustainable smart industries. Therefore, the potential of IoT and macro data analytics depends on such industries being able to optimize their information landscape by implementing and combining relevant frameworks to improve designs and services. There is high expectation for environmental gains from ongoing IoT research and big data analytics in science as well as industry. Therefore, the purpose of this paper is to review and integrate related literature and provides a framework for identifying and discussing the applications of Big Data based on advanced IoT enabled sensors for environmental sustainability and data processing platform in addition to green smart supply chain computing models. This framework provides an innovative multilevel methodology for implementing the green IoT-based supply chain that demonstrates the direct relationship between data in effective locations for environmental sustainability and their impacts using robust analytics. This framework outlines a clear path to implementing the green IoT-based supply chain and identifies influential locations. The reliability of the presented framework has been confirmed by experts.

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Sustainability is on many business leaders’ minds right now—and for good reasons.

A growing number of consumers and non-governmental organizations are demanding businesses to prioritize environmentalism — there’s even regulation in the works at the U.S. Securities and Exchange Commission that could require public companies to increase their reporting on climate-related risks, emissions, and net-zero transition plans.

External pressures aside, greater investment in more sustainable business practices offers avenues for organizations to meet their environmental, social and governance goals, and connect with customers, talent, and their surrounding communities.

Although sometimes overlooked, procurement presents major potential for organizations to make headway toward their sustainability goals. And in my experience, there are a few common purchasing challenges that prevent organizations from actively prioritizing their ESG goals.

But for companies that choose to prioritize ESG in their supply chains, there are a couple of steps organizations of any size can take to develop more sustainable practices and achieve purpose-based relationships with stakeholders.

**Buyers say it’s difficult to source the right suppliers**

Amazon Business’ 2022 annual State of Business Procurement Report discovered that 69% of business buyers self-reported they’re required to make purchases from sellers with more sustainable practices or products. These requirements may come from corporate boards or investors, annual organizational ESG commitments, or in the case of government entities, federal mandates.

Despite the fact that more than two-thirds of survey respondents have sustainability goals, over half (55%) still say it’s difficult to source suppliers that offer more sustainable products. Typically, sustainability-related credentials aren’t readily apparent on product packaging or online descriptions. And many procurement professionals—especially those who are the sole buyer for their organization—lack the time to research and compare whether several product options are credentialed or if sellers are implementing more sustainable practices.

This transparency breakdown has real consequences — 81% of buyers who have difficulty sourcing suppliers with more sustainable practices agree it’s preventing their organization from achieving its procurement sustainability goals.

In addition to supplier credential visibility, many organizations struggle to find areas where they can diversify their supplier base. Typically, the majority of an organization’s spend is strategically managed, meaning it’s negotiated and contracted, often for years at a time. Many of the goods that fall into this strategically managed spend category must adhere to strict specifications that only a few suppliers can fulfill.

With more than three-quarters of organizational spend tied up, organizations have limited opportunities to buy from suppliers that follow more sustainable practices.

**4 ways to build a more sustainable supply chain**

With limited visibility into seller credentials and few opportunities to work with new suppliers, spending on more sustainable products or services can feel daunting. But there are a number of
practical ways organizations can invest in more sustainable procurement practices and make headway toward long-term ESG goals.

1. **Identifying opportunities to increase more sustainable purchases.** Even if the majority of spend is strategically managed, that means there’s still a percentage that is not. These non-contracted tail spend purchases—which often include office supplies or IT equipment—are excellent areas to introduce more sustainable products and suppliers with diversity credentials.

   Though you may not know your exact purchasing needs now, you can plan ahead by identifying suppliers with sustainability-related certifications in these common tail spend categories. When you’re ready to purchase, you’ll have a pre-made list of possible suppliers that your purchasers can easily—and quickly—turn to.

2. **Setting goals and guidelines for your buyers.** It’s important to set specific sustainability-related goals to guide your organization’s purchasing decisions and ensure accountability. Once realistic goals are set, communicate them to your buyers and provide guidelines that demonstrate how they can help contribute to those goals.

   For example, before making any tail spend purchase, you might mandate that buyers research and consider two alternative vendors with diversity credentials.

3. **Measure progress and adjust accordingly.** Purchasing products with environmental sustainability-related certifications is probably just one of several ESG goals you’re working toward. Many organizations reserve purchasing dollars for veteran-owned, women-owned, diverse-owned and small-owned sellers. Just consider that in 2022, 84% of B2B buyers planned to increase how much money they spend with black or diverse-owned businesses compared to the previous year.

   When you’re pursuing multiple goals, it can be easy to overspend in one area and underspend in others. By tracking purchasing data in real time using machine learning-powered analytics, you can easily monitor progress made toward ESG goals and pivot as needed.

4. **Leverage multiple spending channels.** “Don’t put all your eggs in one basket.” This well-known maxim also applies to your business purchasing needs. Depending on your required products, existing relationships with suppliers, and a variety of other factors like delivery speed and pricing, some spending channels are better suited to your needs than others.

   Amazon Business is a B2B store, so admittedly I’m a bit biased here. But one area where digital purchasing channels shine is enabling organizations to find sellers with sustainability-related certifications. Digital tools enable buyers to search and filter for certain products by certification status. In addition, you can consider asking for products with sustainability-related certifications in your requests for proposal forms or during informational calls with suppliers.

   **Advancing a more sustainable future**

   More sustainable business practices are no longer nice to have, they’re quickly becoming standard practice as more stakeholders demand progress. Fortunately, as sustainability becomes a higher priority in procurement spaces, more suppliers and spending channels will likely increase visibility into sustainability-related certifications—and more organizations can make use of this information.

   But for now, you have to work smarter and take extra steps to ensure purchases contribute to your organization’s ESG goals. Just remember, you’re not alone — according to our research 63% of buyers say sustainability is a top priority.

   Nonetheless, the work is worth it — every purchase you make from a seller with sustainability-related certifications demonstrates your commitment and helps contribute to a more value-driven world.

   Opinions are the author’s own.

   Source: www.supplychaindivine.com

●●●
ENSURING EMPLOYEES HAVE THE RIGHT SKILLS TO SUCCESSFULLY NAVIGATE THE COMPLEXITIES OF DIGITAL TRANSFORMATION AND EMBRACE TECHNOLOGY IS KEY, SAYS ADRIAN PRESTON HEAD OF SUPPLY CHAIN CONTENT AT SKILL DYNAMICS, A LEARNING PLATFORM FOR PROCUREMENT AND SUPPLY CHAIN TEAMS.

THE GAP BETWEEN DEPLOYMENT OF SUPPLY CHAIN TECH & LOW ROIS SHOWS ADVANCED TOOLS ARE OUTSTRIPPING PEOPLE SKILLS, WARNS ADRIAN PRESTON OF SKILLS DYNAMICS

In today’s rapidly evolving digital economy, supply chain operations worldwide are embracing digital transformation as a strategic imperative.

However, organisations recognise that as technology continues to disrupt traditional supply chain processes, one of the major challenges hindering progress is a lack of core competencies – supply planning, financials, project management, strategy and analytics – and digital savviness among their supply chain professionals.

The paradigm shift towards digitalisation has become essential for businesses, but ensuring employees have the right skills to successfully navigate the complexities of digital transformation and embrace technology is key.

The vast majority of companies say they are leveraging transformative tools such as AI and big data analytics to enhance their processes and drive organisational growth. Yet despite substantial investment, many of these are not seeing any improvements in speed or accuracy.

This disparity between technology adoption and lack of observed improvements highlights that simply investing in advanced tools is not enough; individuals must possess the necessary expertise to leverage them effectively.

SUCCESS IN SUPPLY CHAIN MANAGEMENT

Given the global interconnectedness brought about by modern technology, data is now readily available at our fingertips.

Many use digital technologies to manage costs and fluctuations, while others rely on these tools to make informed decisions regarding sourcing support. Yet the true value lies not in the data itself but in our ability to extract meaningful insights from it.

However, reaching the pinnacle of success in supply chain management requires a marriage between experience and training to help professionals in making informed decisions that drive operational excellence and business growth.

Broadly, there are two camps:

- Senior professionals who possess foundational knowledge of supply chain principles, such as forecasting, inventory management and supply planning, but lack digital skills
- Junior professionals who excel in digital know-how but lack the vertical expertise in core supply chain competencies

LACK OF CLARITY ON DIGITAL TRANSFORMATION

Many professionals believe team members are not using all digital technologies to their full potential because they lack clarity on when or why it should be used. Bridging this gap is paramount to achieving supply chain excellence.

For instance, when determining safety stock, it is essential to consider not only demand variations but also variations in supply. Merely relying on data and IoT capabilities can lead to inaccurate outcomes.

Therefore, a convergence of expertise is necessary. Both senior and junior professionals must undergo training to enable the transfer of skills across the field to facilitate a holistic and integrated approach to supply chain management.

The importance of possessing core competencies and digital skills cannot be overstated, as the consequences of lacking them can be disastrous for organisations.

To avoid being left behind and ultimately ceasing to exist, organisations must prioritise the acquisition of digital skills and combine them with the necessary competencies to transform data into actionable insights.

SOURCE: supplychaindigital.com
WHAT IS GOVT’S MSME INNOVATIVE SCHEME AND INCUBATION, DESIGN, IPR SUPPORT IT OFFERS

M

SME Innovative Scheme Benefits: MSME-Innovative scheme is one of the three components of the MSME Champions scheme (erstwhile Credit Linked Capital Subsidy-Technology Upgradation Scheme) other MSME-Sustainable (ZED) and MSME-Competitive (Lean) components. The Innovative scheme has three components viz., incubation, design, and intellectual property right. The scheme aims to foster innovation across the entire value chain, spanning from idea generation to the realization of innovative applications, by facilitating incubation and design interventions.

The objective is to provide the necessary infrastructure and support for the development of concepts, enhancing design competitiveness, protecting and commercializing intellectual creations within the MSME sector. It serves as a link between industry and academia leaders and innovators, promoting new product development and offering guidance.

Incubation: The Incubation component involves recognition of eligible institutions as Host Institute (HI) to act as business incubators, approval of ideas of incubatees submitted through HI, assistance for nurturing of ideas to HI and assistance towards capital support to HI for plant and machinery.

Technical colleges, universities, professional colleges/institutes, research and development institutes, NGOs engaged in incubation activities, MSME-DIs/Technology Centres, and any central/state government institution/organization have the opportunity to register as a HI and serve as a business incubator.

Design: The Design component has two parts viz., Design Project and Design Awareness Programme. The Project aims to facilitate MSMEs to develop new design strategies and or design related products through interventions and consultancy while the Awareness Programme focuses on creating general awareness and sensitization about the value and power of design for businesses through seminars, talks, workshops etc.

In order to apply for the Design component, MSMEs should have an Udyam certificate and be profitable preferably in at least one year out of their last three financial years. Moreover, the designer employed by the company should be a qualified industrial designer with relevant experience.

MSMEs are required to submit their design projects to the nominated implemented agencies (IAs) which are essentially MSME Development Institutes or Technology Centres. The projects evaluated by IAs are sent for approval by PMAC. Once approved, 75 per cent of the cost of projects belonging to micro units and 60 per cent of the cost of projects from small and medium units are contributed by the government up to a maximum of Rs 40 lakh and the remaining project cost is contributed by MSMEs.

The total project cost is provided in grant in three stages – 40 per cent at the strategy and concept stage, 30 per cent at the detail design stage and 30 per cent on successful completion of the prototype or product and final report submission.

Importantly, the IA has to ensure the completion of the project within a period of one year of getting the financial assistance and Utilisation Certificate is submitted. If an MSME leaves the project midway, a penalty is imposed as decided by the PMAC of the MSME ministry.

IPR : IPR component provides legal and intellectual property filing support including patents, trademarks, copyrights, designs, geographical indications, etc. The programme also provides IP advisory, consultation, patentability searches, technology gap analyses and IP commercialisation through establishment of Intellectual Property Facilitation Centres (IPFCs) across the country, according to the scheme’s details.

MSME development institutes, technology centres and any other organisations under the MSME ministry are eligible for registration as IPFCs. Moreover, government bodies or departments, MSME industry associations, societies, cooperatives, firms, trust and other profit and non-profit bodies, NGOs representing or working for MSMEs, research or technical and educational institutions, and universities with a track record of assisting MSMEs can also apply for IPFC registration.

The IPFC are recognised as IA for three years which can be renewed based on their performance after approval of PMAC.

Under the scheme, MSMEs can apply for reimbursement for the registration of patent, trademark, G.I. and design through an application on the portal of the scheme. The application is reviewed by the IPFC and sent to the MSME ministry for approval. Post ministry’s approval, the reimbursement is made to MSME.

Reimbursement up to Rs 5 lakh is allowed for foreign patents and Rs 1 lakh for domestic patents, Rs 2 lakh for GI registration, Rs 15,000 for design registration and Rs 10,000 for trademark as a one-time support.

Source: financialexpress.com
ECONOMIC FORECAST 2023: FORECAST FOR NEXT 5-10 YEARS

MARCO SANTARELLI

In this blog post, we will take a closer look at the Economic Forecast 2023 report and its significance in the business world. With the constant fluctuations in the global economy, it is crucial to have a clear understanding of the future economic landscape to make informed decisions.

We will explore the report’s key findings, analyze the projections made by leading economists, and discuss how these insights can benefit businesses and investors. By the end of this post, you will have a better understanding of what the Economic Forecast 2023 report entails and how it can help you navigate the complex economic environment.

A recently released report by the Conference Board indicates that economic weakness will continue to intensify and spread throughout the US economy, leading to a recession in mid-2023. The key factors contributing to this outlook are persistent inflation and Federal Reserve hawkishness. The report forecasts that the real GDP growth rate will slow down to 0.7 percent in 2023, with a slight increase to 0.8 percent in 2024.

Although consumer spending has cooled down, it has not decreased as much as previously expected. As a result, the forecast for Q1 2023 real GDP has been raised from 1.0 percent to 2.0 percent. However, the forecast for Q2 2023 has been downgraded from -0.9 percent to -1.8 percent due to base effects from the stronger Q1 data and the March banking crisis.

While the worst of the crisis seems to be over, tight credit conditions and weakened consumer and business sentiment are expected to persist. The Federal Reserve is not expected to pause interest rate hikes until a terminal rate window of 5.25 to 5.50 percent is achieved in Q2 2023.

The report also addresses the issue of inflation. The Conference Board expects to see some progress in the coming quarters, but the path is likely to be bumpy. In Q2 2023, a significant decrease in the reported year-over-year PCE deflator is forecasted due to base effects. However, the fight to tame inflation is expected to continue, and year-over-year inflation readings are expected to remain around 3 percent until 2023 yearend. The Fed’s 2 percent target is not expected to be achieved until the end of 2024.

Although labor market tightness is expected to moderate somewhat in the coming quarters, it will remain elevated relative to previous economic downturns. This is expected to prevent the overall economic growth rate from slipping too deeply into contractionary territory and facilitate a rebound in early 2024.

Looking ahead to 2024, the report predicts that overall growth will return to pre-pandemic rates, and inflation will drift closer to 2 percent. The Federal Reserve is expected to bring rates back below 4 percent. However, demographic challenges are likely to keep the labor market tight, presenting an ongoing challenge for the foreseeable future.

Economic Forecast 2023: A Slightly More Optimistic but Fragile Outlook: The Organisation for Economic Co-operation and Development (OECD) has released its latest Interim Economic Outlook, which projects global growth to reach 2.6% in 2023 and 2.9% in 2024. The report states that improved business and consumer confidence, declining food and energy prices, and the reopening of the Chinese economy are contributing factors to this growth.

While headline inflation is expected to recede gradually through 2023 in most G20 countries, core inflation remains persistent. This is due to strong service price increases and cost pressures from tight labor markets. This means that inflationary pressures will require many central banks to maintain high policy rates well into 2024.

Annual GDP growth in the United States is projected at 1.5% in 2023 and 0.9% in 2024. Meanwhile, growth in the Eurozone is projected to be 0.8% in 2023 but pick up to 1.5% in 2024 as the drag on incomes from high energy prices recedes. Growth in China is expected to rebound to 5.3% this year and 4.9% in 2024.

OECD Secretary-General Mathias Cormann commented that the outlook today is slightly more optimistic than the organization’s previous forecasts, but the global economy remains fragile. The report highlights persistent large-scale energy and food market disruptions and Russia’s war of aggression against Ukraine as key risks.

Moreover, financial market turbulence and the steady decline in underlying growth prospects could be sources of further disruption. Therefore, more targeted fiscal support and structural reforms are required to revive productivity growth and optimize the recovery and
long-term growth prospects.

The report notes that the improvement in the outlook is at an early stage, and risks remain tilted to the downside. The war in Ukraine and its broader consequences is a key concern, and the overall impact of monetary policy changes is difficult to gauge, which could continue to expose financial and banking sector vulnerabilities. Pressures in global energy markets could also reappear, leading to renewed price spikes and higher inflationary pressures.

Monetary policy needs to remain restrictive until there are clear signs that underlying inflationary pressures are lowered durably. Furthermore, fiscal support should be prudent and needs to become more focused on those most in need to mitigate the impact of high food and energy prices.

Better targeting and a timely reduction in overall support would help to ensure fiscal sustainability, preserve incentives to lower energy use, and limit additional demand stimulus at a time of high inflation. Lastly, rekindling structural reform efforts is needed to revive productivity growth and alleviate supply constraints.

This includes enhancing business dynamism, lowering barriers to cross-border trade and economic migration, and fostering flexible and inclusive labor markets that would boost competition, mitigate supply shortages, and strengthen gains from digitalization. While the outlook has slightly improved, it remains fragile, and the risks remain tilted to the downside. Therefore, it is essential to continue with restrictive monetary policies, prudent fiscal support, and structural reforms to revive productivity growth and mitigate supply constraints to ensure a stable and sustainable economic recovery.

The following is a summary of OECD Global Economic Outlook for 2023-2024

Global Growth

- Global growth slowed to 3.2% in 2022 due to the impact of the war in Ukraine, the cost-of-living crisis, and a slowdown in China.
- Positive signs are emerging, including improving business and consumer sentiment, falling food and energy prices, and the full reopening of China.
- However, global growth is projected to remain below trend rates in 2023 and 2024, at 2.6% and 2.9% respectively, with policy tightening continuing to take effect.

Regional Growth Projections

- Annual GDP growth in the United States is projected to slow to 1.5% in 2023 and 0.9% in 2024.
- Growth in the euro area is projected to be 0.8% in 2023, but pick up to 1.5% in 2024.

- Growth in China is expected to rebound to 5.3% this year and 4.9% in 2024.

Inflation

- Headline inflation is declining, but core inflation remains elevated due to strong service price increases, higher margins in some sectors, and cost pressures from tight labor markets.
- Inflation is projected to moderate gradually over 2023 and 2024 but to remain above central bank objectives until the latter half of 2024 in most countries.

Risks and Uncertainties

- Risks have become somewhat better balanced, but remain tilted to the downside.
- Uncertainty about the course of the war in Ukraine and its broader consequences is a key concern.
- Pressures in global energy markets could also reappear, leading to renewed price spikes and higher inflation.

Policy Recommendations

- Monetary policy needs to remain restrictive until there are clear signs that underlying inflationary pressures are lowered durably.
- Fiscal support to mitigate the impact of high food and energy prices needs to become more focused on those most in need.
- Rekindling structural reform efforts is essential to revive productivity growth and alleviate supply constraints.
- Enhanced international cooperation is needed to help overcome food and energy insecurity, assist low-income countries service their debts, and achieve a better-coordinated approach to carbon mitigation efforts.

Economic Forecast for the Next 5 to 10 Years [2023 to 2033] : The US economy has experienced significant changes in recent years, including unprecedented events like the COVID-19 pandemic, political changes, and a global economic downturn. As we move forward, many people are interested in knowing what the future holds for the US economy over the next five to ten years. This section of the article provides an economic forecast for the next five to ten years, with a focus on economic output, inflation, interest rates, and the labor market.

The CBO’s economic projections provide valuable insights into the US economy’s future. While the US economy is projected to experience some challenges, including a tight labor market and rising interest rates, the economy is expected to continue growing, with a projected growth rate of 2.4 percent per year from 2024 to 2027.
Inflation is also expected to gradually decrease over the next few years, approaching the Federal Reserve’s long-term goal of 2 percent by 2026. Interest rates are projected to rise in the near term but then gradually fall beginning in late 2023. The labor market is expected to be tight in the near term, with the unemployment rate projected to increase before gradually declining over the next few years.

These projections provide useful information for individuals, businesses, and policymakers as they plan for the future. However, it is important to note that economic forecasts are subject to uncertainty and can be influenced by a variety of factors, including unexpected events and changes in economic policy.

**Economic Output**: The Congressional Budget Office (CBO) projects that the US economy’s output, or gross domestic product (GDP), will stop growing early this year in response to last year’s sharp rise in interest rates. However, output is expected to start growing again during the second half of 2023, as falling inflation allows the Federal Reserve to reduce interest rates, causing rebounds in sectors of the economy that are sensitive to interest rates.

In CBO’s projections, the growth of GDP comes to a halt in early 2023, mainly because of the sharp rise in interest rates last year, and then resumes at a slow pace. For 2023 as a whole, real GDP (that is, GDP adjusted to remove the effects of inflation) is projected to grow by just 0.1 percent. The growth of real GDP is projected to speed up thereafter, averaging 2.4 percent a year from 2024 to 2027, in response to declines in interest rates.

**Inflation**: Inflation was higher in 2021 and 2022 than in any other years of the previous four decades, with a rate of 5.7 percent and 5.5 percent, respectively, as measured by the price index for personal consumption expenditures. The annual growth of that price index is projected to remain above the Federal Reserve’s long-term goal of 2 percent through 2024 and then fall near to that goal by 2026.

However, CBO projects that inflation will slow gradually in 2023 as pressures ease from the factors that have caused demand to grow more rapidly than supply in recent years. The PCE inflation is projected to be 3.3 percent in 2023 and 2.4 percent in 2024. PCE inflation is projected to continue declining thereafter, approaching the Federal Reserve’s long-run goal of 2 percent by 2026.

Of the categories that make up the PCE price index, food, energy, and shelter-related services are projected to experience the largest slowdowns in price growth in the next few years.

**Interest Rates**: Interest rates on Treasury securities are projected to rise further in early 2023 and then gradually fall beginning in late 2023. In CBO’s projections, interest rates on short-term Treasury securities move largely in concert with the federal funds rate, which the Federal Reserve sets. In the near term, CBO expects the federal funds rate to rise to 4.5 percent by the end of 2023 and to remain at that level for several years.

CBO has increased, on average, its projections of short- and long-term interest rates over the next five years, mostly because it has raised its near-term projections of inflation since May 2022.

**Labor Market**: The labor market is expected to be tight in the near term, with the unemployment rate projected to increase from 3.6 percent at the end of last year to 5.1 percent at the end of 2023 before gradually declining to 4.5 percent by the end of 2027.

**Economic Outlook for 2028 to 2033: Projections and Analysis**: This section will examine the CBO’s projections for income, GDP, and the overall economic outlook for the five years, between 2028 to 2033. The CBO’s economic projections for 2028–2033 indicate that the economy is projected to grow at its maximum sustainable output. However, this projection is subject to a high degree of uncertainty, and the actual economic growth rate could be affected by various factors. Despite this uncertainty, the projections offer insights into the potential growth rate of the economy, which is an essential consideration for policymakers, investors, and businesses alike.

**Projected Growth of Real Potential GDP**: The CBO projects that real potential GDP will grow at an average rate of 1.8% annually between 2028 and 2033. This growth rate is similar to the average annual growth rate of real potential GDP since 2007. However, this overall growth rate conceals two distinct components of growth: potential labor force growth and potential labor force productivity growth.

The potential labor force is projected to grow more slowly annually over the 2028–2033 period than it has since 2007, on average. In contrast, potential labor force productivity is expected to grow more rapidly than it has since 2007.

**Projected Growth of Real GDP**: Real GDP is projected to grow at an average rate of 1.8% annually between 2028 and 2033, the same rate as real potential GDP. This projection suggests that the economy will be operating at its maximum sustainable output over the next five years. However, this projection is subject to a high degree of uncertainty.

**Projections of Income for 2023 to 2033**: The CBO projects that nominal gross domestic income (GDI), which represents the total income earned in the production of GDP, will grow moderately through 2033. The projection estimates that nominal GDI will grow by 3.1% in 2023, an average of 4.8% in 2024 and 2025, and an average of 4.0% from 2026 to 2033. By the end of 2025, the nominal GDI is projected to be 35% higher than it was before the pandemic. By the end of 2033, it
is expected to be 85% higher than before the pandemic.

**Uncertainty About the Economic Outlook**: The projections offered by the CBO are subject to a high degree of uncertainty. This uncertainty stems from a range of factors, including the effect of higher interest rates on overall demand, the easing of supply-chain disruptions, and labor market participation. Additionally, the growth of potential output in the aftermath of the pandemic could be faster or slower than expected.

**Understanding the US Economic Cycle**: The US economy goes through a cycle of expansion and recession, which has a significant impact on the country's economic growth, employment, and overall well-being. To help policymakers, researchers, and businesses understand the current state of the economy, the National Bureau of Economic Research (NBER) maintains a chronology of US business cycles.

**What is Business Cycle Dating?**

Business cycle dating is the process of identifying and dating the peaks and troughs of economic activity in an economy. The NBER's Business Cycle Dating Committee is responsible for determining the beginning and end dates of recessions and expansions in the US economy. The committee's chronology helps to provide a comprehensive understanding of the US economic cycle and serves as a reference point for policymakers, businesses, and researchers.

**Understanding the Business Cycle**: A business cycle is a period of economic expansion followed by a period of economic contraction. During the expansion phase, economic activity, such as employment, production, and consumption, increases, leading to economic growth. However, economic growth cannot continue indefinitely, and eventually, the economy reaches its peak. At this point, economic activity begins to slow down, leading to a recession.

The NBER defines a recession as a significant decline in economic activity that lasts more than a few months, affecting the economy broadly, and spread across different sectors. In contrast, an expansion is the period between a trough and a peak, during which economic activity increases. Most recessions are brief, and the economy typically returns to its previous peak level of activity or trend path.

**How is Business Cycle Dating Done?**

To determine the peaks and troughs of the US economy, the NBER’s Business Cycle Dating Committee uses a range of monthly and quarterly measures of aggregate real economic activity published by federal statistical agencies. These measures include real personal income less transfers, nonfarm payroll employment, real personal consumption expenditures, wholesale-retail sales adjusted for price changes, and industrial production.

The committee makes a separate determination of the calendar quarter of a peak or trough, based on measures of aggregate economic activity over the relevant quarters. Two measures that are important in the determination of quarterly peaks and troughs, but that are not available monthly, are the expenditure-side and income-side estimates of real gross domestic product (GDP and GDI).

The committee considers these measures and weighs them based on their relevance to the current economic climate. There is no fixed rule about what measures contribute information to the process or how they are weighted in the committee's decisions. In recent decades, the two measures the committee has put the most weight on are real personal income less transfers and nonfarm payroll employment.

**Why Business Cycle Dating Matters**: Business cycle dating is essential in understanding the current state of the economy and its historical performance. By identifying the peaks and troughs of economic activity, policymakers can develop strategies to mitigate the negative effects of economic downturns and take advantage of economic upturns. Businesses can also use this information to plan their operations and investments.

Moreover, the NBER's business cycle chronology can help researchers understand the causes and consequences of economic cycles. Studying the historical performance of the US economy can provide insights into how economic policies, technological innovations, and external shocks can affect the economy and its various sectors.

**Sources**

- https://www.cbo.gov/publication/58957
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- https://www.nber.org/research/business-cycle-dating

Source: www.noradarealestate.com
LOGISTICS QUIZ

1. The word ‘logistikos’ means skilled in
   a) Transportation
   b) Documentation
   c) Calculation
   d) Warehousing

2. One third of the world’s merchant fleet in deadweight capacity terms is represented by
   a) Oil tankers
   b) Ore carriers
   c) LNG tankers
   d) Acid tankers

3. OBO is short form for
   a) Ocean bulk order
   b) Oil/Bulk/Ore
   c) Ore blanket order
   d) Oil buy option

4. The document that is used to differentiate liner operations from tramp operations is
   a) Bill of entry
   b) Letter of credit
   c) Charter party
   d) Shipping bill

5. The term that represents the shifting of cargo to or from a vessel is
   a) Rigging
   b) Carnage
   c) Forced discharge
   d) Slinging

6. Which of the following represents the tidal port in India
   a) Cochin
   b) Tuticorin
   c) Kandla
   d) New Mangalore

7. The cargo manifested but NOT loaded is referred to as
   a) Short landed
   b) Short shipped

8. The function that combines the flow of several small shipments to a specific market area is
   a) Break bulk function
   b) Operational function
   c) Stock piling function
   d) Consolidation function

9. Combination carrier is a unified cargo carrier combining containers and
   a) OBO
   b) RO/RO
   c) SD14
   d) Train ferry

10. As per World Bank’s Logistics Performance Index (LPI) 2023 India stands at
    a) 9
    b) 15
    c) 22
    d) 38

Quiz Ans.
1. b
2. a
3. b
4. b
5. b
6. d
7. b
8. c
9. a
10. a
EFFICIENT SUPPLY CHAIN SUPPORTS INDIA’S GOAL OF BECOMING A USD 5 TRILLION ECONOMY BY 2025.

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Introduction: In 2025, economies with an output of at least USD 5 trillion would likely include the U.S., China, Japan, and Germany as members. India is now looking to join this exclusive club albeit a couple of years later.

The supply chain plays a crucial role in the growth of any economy, especially in India there are several factors that contribute to the estimated growth of the Indian economy to USD 3.5 trillion mark by March 2023. India is expected to become a USD 5 trillion economy by 2025-26 and a USD 7 trillion economy by 2030.

To achieve its goal of becoming a $5 trillion economy by 2025, India needs to have a robust and efficient supply chain network in place.

India Fastest Growing Economy: India is one of the fastest-growing economies in the world, with a GDP growth rate of around 7% in recent years, and made significant progress in terms of economic growth and development, despite facing several economic constraints. World Bank projected India’s GDP Growth as follows.

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World Banks – India Forecast

Value Contribution of SCM to Business: To achieve its goal of becoming a $5 trillion economy by 2025, India needs to have a robust and efficient supply chain network in place. Here are some of the ways in which the supply chain can contribute to India’s economic growth.

Effective supply chain management, may help a Business to Better Forecasting Demand & Supply; Developing Strong Supply Base & Vendor Development; Sourcing at Competitive Terms; Optimization of Production; Efficiency & Productivity Improvements; Efficiently Manage Logistics & Warehousing; Optimize Inventory; Eliminate Waste, Improve Process Flow, Enhance Value; Delivery of Good Quality, @ Right Time & Cost; Improve Agility & Responsiveness; Customer Focus; Manage & Mitigate Risks; Resilience etc. These, in turn, can Enhance Customer Satisfaction by making available
Better Quality Products at Lower Prices in a Sustainable manner with Low Adverse Impact to Society & Environment. May also Boost Demand, Increase Profitability, better business performance and Increased Competitive Advantage.

Role of Supply Chain in Economic Growth: When supply chains are Efficient, Reliable, and Flexible, they can help Businesses Reduce Transaction Costs, Increases Productivity, and fast Respond to Changing Market Demands. Efficient management of the supply chain can give businesses a competitive advantage. All these, in turn, can lead to increased Business Prospects, Increased Trade, Promoting Entrepreneurship, Increased Investments, Enhanced Economic Activities, Job Creation, and Economic growth on a National & Global Scale.

Supply Chain Economic Drivers (SCED): Let’s now discuss how several Supply Chain Economic Drivers (SCED) that contribute to the estimated growth of the Indian economy to USD 5 trillion. Let’s discuss some factors:

Sectorial Growth: Supply Chain Impacts Different Sectors. The services sector makes up about 54 per cent of the economy, while agriculture and manufacturing add another 15 per cent and 18 per cent respectively. India has strong Industrial & Infrastructure Base as well as has strong Agriculture base. (See India’s Dominant Position in World Rankings below)

The agriculture sector contributes around 16% of India’s GDP and relies heavily on efficient supply chain management for the timely delivery of inputs such as seeds, fertilizers, and pesticides, as well as transportation and marketing of produce. To promote investment, government has announced Krishi UDAN 2.0 scheme (to incentivise movement of agri-produce by air transport).

According to the latest available data from the Central Statistics Office (CSO) of India, the industrial sector’s contribution to the country’s GDP was 25.8% in 2020-21. The manufacturing sector is the largest contributor to the industrial sector, accounting for around 77% of its GDP contribution. The manufacturing sector, which contributes around 17-18% of India’s GDP, requires efficient supply chain management to ensure the timely delivery of raw materials, the movement of goods between factories, and the delivery of finished products to customers.

There are several industrial sectors which may contribute positively to GDP – to name a few:

Electronic Industry: According to a report by the India Brand Equity Foundation, the Indian electronic industry was valued at US$ 70 billion in 2020, accounted for 2.3% of India’s GDP and provided employment to over 4 million people is expected to grow to US$ 400 billion by 2025.

Pharmaceutical Industry: As per the Indian Brand Equity Foundation (IBEF), the Indian pharmaceutical industry is expected to reach USD 130 billion by 2030, with a CAGR of 15.92% between 2020 and 2030. In FY 2021, the Indian pharmaceutical industry’s market size was estimated at USD 42 billion.
Automobile Industry: The $100 billion, automobile industry in India accounts for 12 percent of the Gross Value Added (GVA) in the manufacturing sector. Recognized as a core sector, the auto industry contributes 49 percent to India’s manufacturing GDP, 7.5 percent to the GDP at large, and is responsible for 32 million jobs.

Textile Sector: According to the Ministry of Textiles, the Indian textile and apparel industry was valued at US$137 billion in 2019 and is expected to reach US$300 billion by 2025. The textile industry’s contribution to India’s GDP was around 2% in 2019 and accounting for around 45 million jobs in the country, both directly and indirectly. The sector has also been growing at a compound annual growth rate (CAGR) of 6% over the last decade.

Food Industry: The world food and grocery retail market, valued at US$ 11.3 trillion in 2021. In urban India, the food and grocery sector had a total retail value of 242 billion dollars in 2020. The retail value of fresh fruits and vegetables was 99 billion dollars, and it is anticipated that this value will rise to 145 billion dollars by 2025. The Agricultural and Processed Food Products Export Development Authority (APEDA) forecasts that the sector will grow at a compounded annual growth rate (CAGR) of 3% between 2022 and 2030.

Medical Tourism: Traveling to other nations to receive medical aid is known as Medical Tourism. Studies have shown that medical tourism costs in India are 30–40% less than those in other nations. Over 2 million patients visit to India annually from 78 different countries for medical, wellness, and IVF treatments. This sector is also growing and generating income in India, supported by Logistics and Medical Supplies—generating $6 billion for the business, which is supported by the government’s Heal in India initiative and is predicted to reach $13 billion by 2026.

Like these Sectors, there are many other businesses which are extensively depending on Efficient Supply Chain, so, Improvements in Supply Chain may Boost sectorial growth and in turn may trigger investments and Growth of other sectors & Create more Jobs and thus overall Wealth of the Nation.

Infrastructure Development: The Indian government has identified infrastructure as a key area for development and has implemented various policies and initiatives to attract domestic and foreign investment in this sector, with the aim of improving the country’s economic growth and quality of life for its citizens.

Major Initiatives in Development of infrastructure, particularly in the areas of Transportation (Bharatmala Pariyojana, Sagarmala, and UDAN to strengthen the country’s transportation infrastructure), construction of Roads, new Highways (Bharatmala Pariyojana aims to develop and upgrade over 65,000 km of highways across the country, with a total investment of around Rs 5.35 lakh crore), Railways (The Indian Railway Freight Corridor Development is a project aimed at developing dedicated freight corridors (DFCs) for efficient and faster movement of goods across the country – being implemented by the Dedicated Freight Corridor Corporation of India (DFCCIL), a special purpose vehicle of the Indian Railways), Airports (to improve the country’s aviation infrastructure), Communication (BharatNet project, which aims to connect all villages in India with high-speed internet), Energy (National Solar Mission, which aims to install 100 GW of solar power capacity by 2022), Water and Sanitation (Swachh Bharat Abhiyan and the Atal Mission for Rejuvenation and Urban Transformation (AMRUT)).

Improved infrastructure would lead to greater efficiency in supply chain operations and facilitate the movement of goods and services across the country.


There were 692.0 million internet users in India in January 2023.

India’s internet penetration rate stood at 48.7 percent of the total population at the start of 2023. 200% Increase in Rural Internet Subscriptions against 158% in Urban Areas between 2015 and 2021.

There were 467.0 million social media users in India in January 2023. The number of social media users in India at the start of 2023 was equivalent to 32.8 percent of the total population.

One of the key government initiatives driving digital transformation in India is the Digital India program, launched in 2015. The program aims to transform India into a digitally empowered society and knowledge economy by expanding digital infrastructure, increasing internet connectivity, and promoting the use of digital technologies in various sectors.

The growth of digital infrastructure in India has also been fueled by the rise of e-commerce platforms such as Flipkart and Amazon, which have helped to drive the adoption of digital payments and Online Shopping. In addition to e-commerce and digital payments, other sectors such as healthcare, education, and agriculture are also undergoing digital transformation in India.

Overall, the digital transformation of India is bringing about significant changes in the country’s economy, society, and culture, and is likely to continue to do so in the coming years.
According to a recent analysis by TeamLease Digital, Artificial Intelligence (AI) is predicted to increase India’s gross domestic product by up to $500 billion by 2025 and $967 billion by 2035.

The government in the recently announced Foreign Trade Policy (FTP) – 2023, has proposed to boost e-commerce exports, which may touch an estimated $200-300 billion by 2030 from $5-10 billion at present, by extending Foreign Trade Policy benefits, raising the value limit for exports through courier, and carrying out necessary IT enablements in the next six months.

Innovation drives to long-term Economic Growth. India is ranked 40th position out of 132 in the Global Innovation Index (GII) 2022 rankings released by World Intellectual Property Organization (WIPO) which ranks world economies according to their innovation capabilities.

With the increasing use of technology in the supply chain, businesses would be able to streamline their operations and increase productivity, thereby reducing costs and improving customer satisfaction.

Ease of Doing Business: The Indian government has implemented several initiatives to improve the ease of doing business in the country.

As a result of the Consistent and growth-oriented efforts, India has improved substantially in the World Bank’s Doing Business rankings from 142 in 2014 to 63 in 2019. The report based on study on various parameters like starting a business, dealing with construction permits, getting electricity, registering property, getting credit, protecting minority investors, paying taxes, trading across borders, enforcing contracts, and resolving insolvency. India has progressed on seven out of the 10 parameters.

The improved ease of doing business in India has attracted foreign investment, increased entrepreneurship, and stimulated economic growth further.

Population &Skilled Labor Force: India has a large and growing population, which is expected to exceed 1.4 billion by 2025. This means there is a vast pool of labor available for various industries, driving economic growth. India has one of the world's largest young populations, with more than 50% of its total population below the age of 25. This demographic advantage is expected to last for several decades, providing India with a large pool of potential workforce and large consumers base which are major driver of economic growth.

Government Initiatives & Policy Frameworks: The Indian government has launched several initiatives to promote economic growth, including the Make in India campaign, Skill India, Digital India, and Startup India. These Policy Initiatives have supported to attract investment and encourage entrepreneurship in the country and as a result Boost the Economy. In the last few years, the government has introduced several industry-friendly policies such as PM Gati Shakti, the National Logistics Policy, PLI schemes, India Industrial Landbank, and the National Single Window System to project India as the most attractive destination, not only for investments but also for doing business.

Production-Linked Incentive (PLI) Scheme: The government has launched a PLI scheme to provide financial incentives to manufacturers in certain sectors such as Automobiles and Auto Components, Specialty Steel, Electronic/Technology Products, EV, Pharmaceuticals, Manufacturing of Medical Devices, Food Products and Textiles etc to Promote Domestic Manufacturing & Substitute Imports in line with Aatma Nirbar BharatAbhiyan and also to Boost Exports.

PM Gati Shaktiis a great step towards promoting economic growth in India, which aims to boost economic growth by improving infrastructure and reducing supply chain bottlenecks, by leveraging technology and digitization. The initiative focuses on the development of a multi-modal transportation network, which includes roads, railways, airways, and waterways. By improving infrastructure, the initiative aims to reduce the time and cost of transportation, which will in turn improve the efficiency of the supply chain.

National Logistics Policy - 2022: The National Logistics Policy formulated by the Commerce and Industry Ministry will improve India’s trade competitiveness, create more jobs, improve India’s performance in global rankings and pave the way for India to become a logistics hub. The Goal is to reduce Logistics costs by half to be near global benchmarks by 2030 by bringing down the cost of logistics from 14-18% of GDP to global best practices of 8%.

An efficient logistics system may make India an attractive destination for international businesses looking to Invest, establish manufacturing or distribution facilities. This may lead to Reduced Transaction Costs, increased job creation, higher exports, and ultimately, increased economic growth & prospects.

According to a report by the Indian Brand Equity Foundation, the Indian logistics industry is expected to grow at a CAGR of 10.5% between 2020 and 2025, and estimated to be worth around $215 billion and is expected to grow to $375 billion by 2030. According to the Economic Survey 2020-21, the logistics sector contributes about 13-14% of the country’s GDP.

New Foreign Trade Policy (FTP) 2023: The new foreign
trade policy has highlighted the vision to take India's goods and services exports to $2 trillion by 2030. The FTP 2023 encourages recognition of new towns through “Towns of Export Excellence Scheme” and exporters through “Status Holder Scheme”, extending all FTP benefits to e-commerce exports, proposes to create a designated zone with a warehousing facility, to help e-commerce aggregators towards easy stocking, customs clearance and returns processing – Aiming Exports Led Growth. Exports are estimated to grow at 12.5 per cent in FY 2022-23 despite continuing supply chain disruptions and an uncertain geopolitical environment.

The share of exports in GDP (at 2011-12 prices) also increased to 22.7 per cent in FY 2022-23 compared to 21.5 per cent in FY 2021-22. In the Fiscal year 2022-23, total exports expected to the tune of $760-770 billion as against $676 billion in 2021-22.

Districts as Export Hubs Initiative: In his Independence Day speech on 15th August, 2019, Hon’ble Prime Minister highlighted the need to channelize the unique potential of each District of the country and convert them into export hubs. Taking his vision and the concept forward, Department of Commerce through DCGT launched the “Districts as Export Hubs”. Under the ‘Districts as Export Hubs Initiative’, products and services (including GI products, agricultural clusters, toy clusters etc.) with export potential have been identified in all the 733 districts of the country in consultation with the stakeholders including the States/UTs. A special Chapter (Chapter – 3) is introduced in the Newly announced “Foreign Trade Policy” (FTP) -2023.

Trade Infrastructure for Export Scheme (TIES): The TIES scheme aims to develop export infrastructure such as ports, airports, and roads to facilitate exports from India.

Agriculture Export Policy: The government has launched an Agriculture Export Policy to boost agricultural exports from India. The policy includes measures such as improving the quality of agricultural products, promoting value addition, and providing market access.

Internationalization of Rupee : This process aims to promote India’s economic growth and development by increasing the use of the rupee in cross-border transactions, foreign investment, and global trade. Around 30 Vosto Accounts have been opened in 60 banks in 18 countries. With this measure “Rupee Becoming A Global Currency”, reducing the Excessive dependency on US Dollar. The Measure may Reduced Transaction Costs in the Global Trade.

Trade Agreements: India has signed several trade agreements with countries around the world, including the UAE, Australia, South Korea, Japan, Canada, and the European Union. These agreements would provide Indian businesses with greater access to international markets, increasing their potential customer base and revenue.

India is also being a member of the World Trade Organization (WTO), helped in opening up new markets for Indian products and services.

Global Factors

Many External factors like Geopolitical tensions, including trade disputes and sanctions, Trade tensions between US & China, Russia-Ukraine war etc are posing greater challenges, and impacting global economic growth and stability. The COVID-19 pandemic has caused disruptions in the supply chain, which has had a negative impact on trade and the growth of the economy.

Similarly, climate change, including natural disasters and extreme weather conditions, has also caused disruptions in the supply chain, caused damage to infrastructure, and led to an increase in the cost of goods and services. Inflation has been a significant concern for many economies around the world. Rising inflation rates leading to increased costs for consumers and businesses, and also leading to a decrease in purchasing power.

India’s economic resilience has helped it withstand the challenge of mitigating external imbalances caused by the Russia-Ukraine conflict and US-China Tensions without losing growth momentum.

Supporting Sustainability: An efficient supply chain can help Conserve Input Consumptions, Reduce Waste, Energy Consumption, and Environmental Impact, Making Businesses more Sustainable and Socially Responsible. By adopting sustainable practices and working with suppliers, supply chain service partners and logistics providers that share these values, businesses can create a more sustainable future while supporting economic growth.

So, Improvements in Supply Chain may Boost Economic Growth as well as Improve overall Wealth and Prosperity of the Society & at large a Balanced National Economic Growth with Sustainability Concerns (3P - Profits, People & Planet).

Conclusion

Overall, a robust and efficient supply chain supporting both Manufacturing, Services and other economic sectors is essential to achieve India, its goal of becoming a USD 5 trillion economy by 2025 and to sustain and improve further strong growth.

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PREPARING BID DOCUMENTS, PUBLICATION, RECEIPT AND OPENING OF BIDS

This is the fifth article in the series of articles for Public Procurement. This is in continuation of fourth article published in the June 2023 issue from pages 37 to 48 titled “Modes of Procurement and Bidding Systems in Public Procurement”.

Preparation of Bid Documents: The text of the bid document should be self-contained and comprehensive without any ambiguity. All essential information, which a bidder needs for sending responsive bid, should be clearly spelt out in the bidding document in simple language. This will also enable the prospective bidders to formulate and send their competitive bids with confidence. A carefully prepared tender document avoids delays and complaints. Hence, it is worth spending time and effort on this even in cases of urgency.

Bid documents should be based on SBDs relevant for the value range and the category of procurement. SBD for e-procurement would be slightly different from the traditional SBD. To ensure uniformity, the standard provisions in most sections of the SBD/ SRfPD are to be used unaltered. Any modification to suit a unique requirement of the specific procurement in these documents is to be done through variable sections such as Special Instructions to Bidders or special conditions of contract (these variable sections may have different nomenclatures in some organisations). Department of Expenditure has issued Model Tender Documents for Procurement of Goods and Procurement of Non-Consultancy Services on 29th October 2021.

In case of a limited tender, instead of a full set of SBD, only a machine numbered tender form (refer Annexure 5) is used as the tender document, after filling up the name of the vendor and details of requirements. It has the “terms and conditions of tender” printed on the obverse side. In any case, all registered vendors, who normally are invited to quote in such limited tenders, have already acknowledged acceptance of “general conditions of contract” as part of the registration application, which are applicable to such procurements, in additions to “terms and conditions of tender” on the obverse of tender form. If necessary, specifications and drawings or any other document may be enclosed with the limited tender form.

While SBDs would be complete in themselves and may be slightly different for various categories of procurements, these must necessarily address the following essential aspects:

i) Description of the subject matter of procurement, its specifications including the nature, quantity, time and place or places of delivery;

ii) Limitation or preference for participation by bidders in terms of the Government policies;

iii) The criteria for eligibility and qualification to be met by the bidder (the eligibility criteria should take care of the supplier’s eligibility to receive such a Government contract. The qualification criteria should take care of the supplier’s past performance, experience, technical competence and production capacity of the subject goods, financial strength to handle the contract successfully, compliance with environmental protection regulations/ Environment Management System and so on);

iv) There are no such qualifications for the bidders that would be advantageous to the foreign manufactured goods at the cost of domestically manufactured goods.

v) The procedure as well as date, time and place for obtaining, submitting and opening of the bids;

vi) Terms of delivery/completion;

vii) Suitable provisions for enabling a bidder to question the bidding conditions, bidding process and/or rejection of its bid. These provisions should include a time frame in which procuring entity will address the bidder’s questions; (Rule 173 (iv) of GFR 2017).

viii) Criteria for determining the responsiveness of bids, criteria as well as factors to be taken into account for evaluating the bids on a common platform and the criteria for awarding the contract to the responsive, most advantageous (lowest/highest as the case may be) bidder should be clearly indicated in the bidding documents. SBDs should include a clause that “if a firm quotes NIL charges/consideration, the bid shall be treated as unresponsive and will not be considered”;

ix) Suitable provision for settlement of disputes, if any, emanating from the resultant contract, should be kept in the bidding document; (Rule 173 (v) of GFR 2017) and

x) Essential terms of the procurement contract including a suitable clause mentioning that the
resultant contract will be interpreted under Indian laws (Rule 173 (vi) of GFR 2017)

xi) Tender Documents:

a) The tender document is the fundamental document in the public procurement process as after award of the contract it becomes part of the contract agreement. All necessary provisions governing the contract should be clearly provided in the tender document. Examples are technical specifications, drawings, commercial terms and conditions including time period, inspection, payment terms, obligations of the procuring entity and the suppliers timeframe/milestones, tax implications, compliance framework for statutory and other norms, dispute resolution. Provisions/ clauses in the tender document should be clear to avoid differences in interpretation and possible time overrun, cost overrun and quality compromises. Model Tender Documents issued by the DoE may be used, with due customisation.

b) In tenders containing General Conditions of Contract (GCC), additional/ special conditions to be incorporated in the tender document, shall be based and specific. The GCCs should not be altered and changes, if any, in conditions of contract should only be made through the Special Conditions of Contract.

c) Procurer entities may issue instructions regarding appropriate delegation of authority for variations and changes in the scope of the contract.

d) Provision of price variation, wherever considered appropriate, as well as methodology for calculation of the same shall be clearly stipulated in the tender document.

e) Technical and Financial eligibility Criteria for the bidders are important in the public procurement process. They shall be clear and fair, having regard to the specific circumstances of the procurement. Appropriate parameters should be prescribed in the eligibility criteria for bidders, to enable selection of the right type of bidders in public interest, balancing considerations of quality, time and cost.

f) Open online tendering should be the default method to ensure efficiency of procurement. Public authorities should also keep the experience criteria broad based so that bidders with experience in similar nature of items/goods can participate.

g) Pre-bid conference may be conducted for large value tenders by Procuring Entities. The Place and time of pre-bid conferences should be mentioned in the tender document and/or publicized through the website of the procuring entity and/or through newspaper publication.

Contents of Tender Documents (Rule 168 of GFR 2017)

The main sections of the SBD are:

xii) Notice Inviting Tender (NIT);

xiii) Instructions to Bidders (ITB);

xiv) Appendix to Instructions to Bidders (AITB) (instead of modifying ITB, it is better to have information specific to a procurement as a separate section);

xv) Eligibility and qualification criteria;

xvi) Schedule of requirements

xvii) Technical specifications (including Drawings) and Quality Assurance (Inspections and Tests);

xviii) General Conditions of Contract (GCC);

xix) Special Conditions of Contract (SCC) (instead of modifying GCC every time, it is better to have it as a separate section); and

xx) Standard formats, including Bid Cover letter, price schedules, bank guarantees and contract format.

A reading of the sections of the tender document will make the purpose and instructions clear. However, some broad guidelines for preparing bid documents are provided in the subsequent paragraphs.

Notice Inviting Tender: The model NIT format in SBD should be used for publishing the tender notice. To ensure competition, attention of all likely tenderers, for example, registered suppliers, past suppliers and other known potential suppliers, should be invited to the NIT through email/SMSs/letters. In e-procurement, the website may be programmed to generate these alerts automatically.

The Notice Inviting Tender (NIT) is crucial for attracting wide competition in the tender. The model NIT format in SBD should be used for publishing the tender notice. The NIT should be brief but must contain sufficient detail for a prospective bidder to decide whether to participate in the tender or not and, if he decides to participate, how to go about it. To ensure competition, attention of all likely tenderers, for example, registered vendors, past suppliers and other known potential suppliers, should be invited to the NIT through email/SMSs/letters. In e-procurement, the website may be programmed to generate these alerts automatically. NIT should be published as per the current policy of Procuring Entity in this regard (Please refer to chapter 4 for details).

In case of procurement through a limited tender, the NIT may be uploaded on CPPP Portal and Procuring Entity’s website with a note saying:

“This notice is being published for information only and is not an open invitation to quote in this limited tender. Participation in this tender is by invitation only and is limited to the selected Procuring Entity’s registered
suppliers. Unsolicited offers are liable to be ignored. However, suppliers who desire to participate in such tenders in future may apply for registration with Procuring Entity as per procedure.”

Printouts of the tenders published on the website should be collected and kept on record as a proof of publicity. The complete details of the dates, on which advertisements actually appeared on the website, should be indicated while sending cases to higher authorities.

Information to Bidders (ITB) and AITB : ITB contain all relevant information as well as guidance to the prospective tenderers regarding all aspects of obtaining tender documents, and preparing and submitting a responsive bid. It also mentions the process of establishing the eligibility of the tenderer as well as evaluation and comparison of tenders and award of contract. ITB should not contain information on processes after the announcement of the award which should be covered in GCC, for example, the arbitration clause, resolution of disputes, and so on. Instead of modifying ITB every time, any changes warranted by special circumstances may be indicated with the prior approval of CA on a separate Appendix to ITB (AITB) and ITB may be included unchanged in every tender document. It should also be indicated therein that the provisions in the AITB will supersede the corresponding provisions in the ITB.

Important clauses of ITB/ AITB which may require attention and action are:

i) Purchase Preference Policies : If the purchaser intends to give a purchase preference in line with current Government policies, this fact must be declared in the ITB/AITB and in NIT as well.

ii) Clarification of Tender Documents : A prospective bidder requiring clarification on the tender documents may notify to Procuring Entity in writing, well before the due date of submission of bids, and a response will be sent in writing to the clarifications sought prior to the date of opening of the tenders. Copies of the query and clarification shall be sent to all prospective bidders who have received the tender documents.

iii) Amendment of Tender Documents (Rule 173 (iii) of GFR 2017) : At any time prior to the date of submission of bids, the purchaser may, at his own initiative or in response to a clarification sought by a prospective bidder, amend bid documents by issuing a corrigendum. The corrigendum shall be notified in writing by registered post/speed post/courier/email to all known prospective bidders. Copies of such amendments are also to be prominently attached in the unsold sets of the tender documents (which are available for sale), including the tender documents uploaded on the website. When the amendment/modification changes the requirement significantly and/or when there is not much time left for the tenderers to respond to such amendments, and prepare a revised tender, the time and date of submission of tenders are also to be extended suitably, along with suitable changes in the corresponding timeframes for receipt of the tender, tender validity period, and so on, and validity period of the corresponding EMD/bid security. Depending on the situation, such an amendment may also need fresh publication adopting the same procedure as for publication of the original tender enquiry.

iv) Bid Validity : 2.3.1 A bid shall remain valid for the period mentioned in the ITB/ AITB [normally 75 (seventy-five) days for OTE and 90 (ninety) days for GTE]. In exceptional circumstances, the consent of the bidder may be requested in writing for an extension to the period of bid validity. Such requests should preferably be made much before the expiry of the bid validity. The bid security provided shall also be suitably extended. A bidder accepting the request and granting extension shall not be permitted to modify his bid. Reasons for seeking extension of bid validity should be recorded by the procuring officers at the time of taking such decisions itself.

v) Sealing and Marking of Tenders : The tender document is to indicate the total number of tender sets (for example, in duplicate or in triplicate, and so on) required to be submitted. The tenderer is to seal the original and each copy of the tender in separate envelopes, duly marking the same as “original”, “duplicate,” and so on, and also printing the address of the purchase office and the tender reference number on the envelopes. Further, the sentence “NOT TO BE OPENED” before (due date and time of tender opening) is also to be printed on these envelopes. The inner envelopes are then to be put inside a bigger outer envelope, which will also be duly sealed marked, and so on, as above. If the outer envelope is not sealed and marked properly as above, the purchaser will not assume any responsibility for its misplacement, premature opening, late opening, and so on. All the above instructions are to be suitably incorporated in the tender documents.

vi) Withdrawal, Substitution and Modification of Tenders : The tenderer, after submitting the tender, is permitted to withdraw, substitute or modify the tenders in writing without forfeiture of Bid Security/ EMD, provided these are received duly sealed and marked like the original tender, up to the date and time of receipt of the tender. Any such request received after the prescribed date and time of receipt of tenders will not be considered. No bid may be withdrawn in the interval between the deadline for submission of bids and expiration of the period of bid validity. Withdrawal of a bid during this period will result in forfeiture of the bidder’s bid security (EMD)
and other sanctions.

vii) **Eligibility/Evaluation/Qualification Criteria** : if it is intended to use eligibility/evaluation/qualification criteria to evaluate a tender and determine whether a tenderer has the required qualifications, this point may be clearly specified in NIT, ITB/AITB or as a separate section of the tender document.

The bidder has to ensure that he provides convincing proof of having fulfilled these criteria. Any criteria not specified in the tender cannot be used for evaluation or qualification.

The condition of prior turnover and prior experience may be relaxed for Startups (as defined by Department of Industrial Policy and Promotion) subject to meeting of quality & technical specifications and making suitable provisions in the bidding document (Rule 173 (i) of GFR 2017). As per Department of Expenditure’s OM No.F.20/2/2014-PPD dated 20.09.2016, relaxation regarding the prior turnover and prior experience is applicable **only to all startups** recognized by Department of Industry & Internal Trade (DPIIT) subject to meeting of quality and technical specifications. Startups may be MSMEs or otherwise.

Prequalification/ Post Qualification (PQ) shall be based entirely upon the capability and resources of prospective bidders to perform the particular contract satisfactorily, taking into account their experience and past performance, capabilities with respect to personnel, equipment and manufacturing facilities, financial standing. The quantity, delivery and value requirement shall be kept in view, while fixing the PQ criteria. No bidder should be denied prequalification/post qualification for reasons unrelated to its capability and resources to successfully perform the contract.

viii) **OEM/Authorised Dealer/Agents of Supplier** : Except in case of Commercially-Off-the-Shelf (COTS) items, when a firm sends quotation for an item manufactured by some different company, the firm is also required to attach, in its quotation, the manufacturer’s authorisation certificate and also manufacturer’s confirmation of extending the required warranty for that product as per formats given in SBD. This is necessary to ensure quotation from a responsible party offering genuine product, also backed by a warranty obligation from the concerned manufacturer. In the tender, either the manufacturer or its authorised dealer can be considered as valid bidders.

In case of large contracts, especially capital equipment, the manufacturer’s authorisation must be insisted upon on a tender specific basis, not general authorisation/dealership, by so declaring in the bid documents clearly.

In cases where the manufacturer has submitted the bid, the bids of its authorised dealer will not be considered and EMD will be returned.

And in case of violations, both infringing bids will be rejected.

ix) **Conflict of Interest among Bidders/ Agents** : A bidder shall not have conflict of interest with other bidders. Such conflict of interest can lead to anti-competitive practices to the detriment of Procuring Entity’s interests. The bidder found to have a conflict of interest shall be disqualified. A bidder may be considered to have a conflict of interest with one or more parties in this bidding process, if:

a) they have controlling partner (s) in common; or

b) they receive or have received any direct or indirect subsidy/financial stake from any of them; or

c) they have the same legal representative/agent for purposes of this bid; or

d) they have relationship with each other, directly or through common third parties, that puts them in a position to have access to information about or influence on the bid of another Bidder; or

Bidder participates in more than one bid in this bidding process. Participation by a Bidder in more than one Bid will result in the disqualification of all bids in which the parties are involved. However, this does not limit the inclusion of the components/sub-assembly/Assemblies from one bidding manufacturer in more than one bid.

f) In cases of agents quoting 54 in offshore procurements, on behalf of their principal manufacturers, one agent cannot represent two manufacturers or quote on their behalf in a particular tender enquiry. One manufacturer can also authorise only one agent/dealer. There can be only one bid from the following:

1. The principal manufacturer directly or through one Indian agent on his behalf; and

2. Indian/foreign agent on behalf of only one principal.

a Bidder or any of its affiliates participated as a consultant in the preparation of the design or technical specifications of the contract that is the subject of the Bid;

h) In case of a holding company having more than one independently manufacturing units, or more than one unit having common business ownership/management, only one unit should quote. Similar restrictions would apply to closely related sister companies. Bidders must proactively declare such sister/ common business/management units in same/similar
line of business.

x) **Schedule of Requirements**: This section comprises the list of goods and delivery schedule. If there is no separate TS then TS, quality assurance and inspections may also be included here. If the tender contains a number of schedules of requirements, it must be clarified, whether evaluation of eligibility/qualifications/financial bids would be on a schedule by schedule basis or on the basis of a total of all schedules put together.

xi) **Quotation Received from Dealers/Agents for Items not Manufactured by Them**: When a firm sends a quotation for an item manufactured by a different company, the firm is also required to attach in its quotation that manufacturer’s authorisation certificate and also manufacturer’s confirmation of extending the required warranty for that product (in addition to the tenderers’ confirmation to the required warranty). If the firm is an authorised agent/dealer of that manufacturer, certified documentary evidence to this effect is to be attached along with the quotation. This is necessary to ensure a quotation from a responsible party offering the genuine product, also backed by a warranty obligation from the concerned manufacturer.

xii) **Special Conditions in GTE Procurements**

a) **Currency of Bidding**: In GTE tenders, the Foreign Bidders are allowed to quote price (and get paid) in RBI’s notified basket of foreign currencies - US Dollar or Euro or Pound Sterling or Yen etc., in addition to the Indian Rupees- except for expenditure incurred in India (including agency commission if any) which should be stated in Indian Rupees. Indian Bidders are to quote in INR only.

b) **Agency Commission**: The amount of Agency Commission, (normally not exceeding five percent) payable to the Indian Agent should not be more than what is specified in the Agency agreement (a certified copy should be submitted along with the bid) between the bidder and the Indian Agent. The Indian Agent will be required to submit a certificate along with their Agency Commission bill, confirming that the amount claimed as Agency Commission in the bill has been spent/will be spent, strictly to render services to the foreign Principal, in terms of the Agency Agreement. The Purchaser or their authorized agencies and/or any other authority of the Government of India shall have rights to examine the books of the Indian Agent and defects or misrepresentations in respect of the afore indicated confirmation coming to light during such examinations will make the foreign Principal (i.e. the Contractor) and their Indian Agent liable to be banned/suspended from having business dealings with the Purchaser, following laid down procedures for such banning/suspension of business dealings.

c) **Delivery Terms**: The delivery terms are to be expressed in terms of Incoterms. Asper the revised policy of the Government, all Public Procurement import contracts involving (Ocean freight of dry or liquid bulk cargoes) are to be finalized only on FOB (Free on Board)/ FAS (Free Alongside Ship) basis and in case of any departure there-from, prior approval of the concerned administrative Ministry/Department may be obtained. However imports involving ocean freight of general liner cargoes, project cargoes, heavy lift, container, break bulk cargoes etc. can now be made on FOB (Free on Board)/ FAS (Free Alongside Ship) or CFR (Cost & Freight)/ CIF (Cost, Insurance & Freight) basis. All importing Government Departments/ PSUs are now allowed to make their own shipping arrangements with out needing to route their requirements through Chartering Wing of Ministry of Shipping. As per the extant directive of the Government, airdropping of imported goods from abroad will be done only through the national carrier, that is, Air India, wherever applicable. However, before processing any contract involving import of goods through air, contemporary instructions in this regard may be ascertained and followed;

d) **Insurance**: Wherever necessary, the goods supplied under the contract shall be fully insured in a freely convertible currency against loss or damage incidental to manufacture or acquisition, transportation, storage and delivery in the manner specified in the contract. If considered necessary, the insurance may be done for coverage on an “all risks” basis including war risks and strike clauses. The amount to be covered under insurance should be sufficient to take care of the overall expenditure to be incurred by the purchaser for receiving the goods at the destination. Insurance of imported goods/equipment would need to be arranged on a very selective basis and only for cases where the value of individual shipment is expected to be in excess of Rupees five crore. Procuring Entities who are entering into large number of imports contracts, may enter into annual Insurance arrangements for all imports during the year with Insurance Companies, instead of insurance for each individual imports separately on the basis of “Open Cover (all Risk)”. Where delivery of imported goods is required by the purchaser on Cost Insurance and Freight/Carriage and Insurance Paid (CIF/CIP) basis, the supplier shall arrange and pay for marine/air insurance, making the purchaser the beneficiary. Where delivery is on Free On Board/ Free Alongside Ship (FOB/FAS) basis, marine/air insurance shall be the responsibility of the purchaser.

**General and Special Conditions of the Contract**

The GCC to be used for contracting for procurement
are provided in Procuring Entity’s SBD. GCC covers all information on aspects after the announcement of the tender award till the closure of the contract and dispute resolution. It should not cover any aspect up to announcement of award. Instead of modifying the GCC every time, any changes warranted by special circumstances may be indicated in a separate SCC with the prior approval of the CA and GCC may be included unchanged in every tender document. It is also to be indicated therein that the provisions in the SCC will supersede the corresponding provisions in the GCC.

**Submission Formats:** This section contains the relevant forms for tender submission: various declarations by tenderer, formats for the bank guarantee, price schedule forms, exception and deviation forms, contract forms and manufacturer’s authorisation form, and so on.

**Mandatory e-Publishing of Tenders (Rule 159 of GFR 2017):** It is mandatory for all Ministries/Departments of the Central Government, their attached and subordinate offices and autonomous/statutory bodies to publish their tender enquiries, corrigenda thereon and details of bid awards on the Central Public Procurement Portal (CPPP). These instructions apply to all Tender Enquiries, Requests for Proposals, Requests for Expressions of Interest, Notice for pre Qualification/Registration or any other notice inviting bids or proposals in any form whether they are advertised, issued to limited number of parties or to a single party. These instructions would not apply to Purchase of goods without quotations or Purchase of goods by purchase committee.

Individual cases where confidentiality is required, for reasons of national security, would be exempted from the mandatory e-publishing requirement. The decisions to exempt any case on the said grounds should be approved by the Secretary of the Ministry/Department with the concurrence of the concerned Financial Advisor. In the case of autonomous bodies and Statutory bodies’ approval of the head of the body with the concurrence of the head of the finance should be obtained in each such case. Statistical information on the number of cases in which exemption was granted and the value of the concerned contract should be intimated on a Quarterly basis to the Ministry of Finance, Department of Expenditure.

**Receipt and Custody of Tenders**

**Cost and Availability of Tender Documents:** Tender documents should preferably be sold or available for download up to date of opening of tenders and this should be clearly indicated in the documents. The organisation should also post the complete tender document in the website and permit prospective tenderers to make use of the document downloaded from the website.

The tender document fee should be as low as possible considering the cost/effort of preparing documents. In order to promote wider participation and ease of bidding, no cost of tender document may be charged for the tender documents downloaded by the bidders.

The procuring Entity may decide not to take any charges for the tender documents, in view of prevalence of e-publishing/downloading of tender documents. The cost of the tender document is to be submitted to the authority nominated therein by the prospective tenderer in the form of a demand draft/banker’s cheque/pay order. Firms that are eligible for exemption from the tender document fee such as MSEs, Procuring Entity registered units (for relevant items and monetary limit) have to submit/upload scanned copy of documents in support of this exemption. Although the Procuring Entity is the best judge to decide or waive the document cost, following table could be used as a starting point:

<table>
<thead>
<tr>
<th>Estimated Value of Tender</th>
<th>Tender Document Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>Below Rs 25 Lakh</td>
<td>Rs. 500</td>
</tr>
<tr>
<td>Rs 25 Lakh to Rs 2 Crore</td>
<td>Rs. 1,500</td>
</tr>
<tr>
<td>Rs 2 Crore to Rs 25 Crore</td>
<td>Rs. 2,500</td>
</tr>
<tr>
<td>Rs 25 Crore to Rs 50 Crore</td>
<td>Rs. 5,000</td>
</tr>
<tr>
<td>Above Rs 50 Crore</td>
<td>To be decided on case to case basis</td>
</tr>
</tbody>
</table>

**Pre-bid Conference (Rule 173 (x) of GFR 2017):** In case of turnkey contract (s) and facilities of a special nature for procurement of sophisticated and costly equipment, large works and complex consultancy assignments, a suitable provision is to be kept in the bidding documents for one or more pre-bid conference for clarifying issues/clearing doubts, if any, about the specifications and other allied technical/commercial details of the plant, equipment and machinery projected in the bidding document and for ensuring that the technical requirements provide a level playing field. The date, time and place of the pre-bid conference should be indicated in the tender enquiry document. Bidders should be asked to submit written queries in advance of the conference. After the conference, the techno-commercial requirements may be revised if considered necessary by way of issue of a formal corrigendum (merely minutes of the meeting of pre-bid conference would not suffice) and shared with all the bidders who purchase or have purchased the bid documents.

**Extension of Tender Opening Date:** Sometimes, situations may arise necessitating modification of the tender documents already issued (LTE case) or already put on sale (OTE case). Also, after receiving the documents, a tenderer may point out some genuine mistakes necessitating amendment in the tender documents. In such situations, it is necessary to amend/modify the tender documents suitably prior to the date of submission of bids. Copies of such amendment/modification should be simultaneously sent to all the selected suppliers by registered/speed post/courier/e-mail in case of LTE. In case of OTE, the copies of such amendment/modification are to be simultaneously despatched, free of cost, by registered/speed post/courier/e-mail, to all the parties who have already
purchased the tender documents and copies of such amendments are also to be prominently attached in the unsold sets of the tender documents (which are available for sale), including the tender documents for downloading put on the CPPP and Procurying Entity’s own website.

When the amendment/modification changes the requirement significantly and/or when there is not much time left for the tenderers to respond to such amendments, and prepare revised tender, the time and date of submission of tenders are also to be extended suitably, along with suitable changes in the corresponding time-frames for receipt of tender, tender validity period etc and validity period of the corresponding EMD/bid security. Depending on the situation, such an amendment may also need fresh publication adopting the same procedure as for publication of the original tender enquiry.

Sealing, and Marking of Bids by Bidders: The tender document is to indicate the total number of tender sets (e.g., in duplicate or in triplicate etc.) required to be submitted. In case of two envelop bidding system, the techno-commercial bid and financial bid should be sealed by the tenderer in separate covers duly marking these as ‘Techno-commercial Bid’ and ‘Financial Bid’ and marked these with the address of the purchase office and the tender reference number on the envelopes. Further, the sentence ”NOT TO BE OPENED” before........... (due date & time of tender opening) are also to be put on these envelopes and these sealed covers are to be put in a bigger cover which should also be sealed and duly super scribed in a similar manner. In case bids are asked in a number of copies, the tenderer is to seal the original and each copy of the tender in separate envelopes, duly marking the same as “original”, “duplicate” and so on and also marking these as mentioned above. The inner envelopes are then to be put in a bigger outer envelope, which will also be duly sealed marked etc. as above. If the outer envelope is not sealed and marked properly as above, the purchaser will not assume any responsibility for its misplacement, premature opening, late opening etc. These details regarding the submission of bids should also form a part of the ITB and AITB in the tender documents; all the above instructions are to be suitably incorporated in the tender documents.

Submission, Receipt and Custody of Tenders: In e-procurement, all tenders uploaded by tenderers are received, safeguarded and opened online on the portal. In offline tenders, receipt and custody of bids shall be done in a transparent manner to maintain the credibility of the process. The following guidelines should be adhered to for receipt and custody of bids:

1) The procuring entity shall maintain tender boxes for receiving the bids at suitable locations which would facilitate security and easy access to bidders. If required, Tender boxes should be separate for each day of the week of tender opening and should be sealed by the Bid Opening Committee (BOC) of the day. The tender box shall have two locks. Key of one lock will be with the head of the office and the other key with the official nominated by him;

2) Bids received by courier shall be deposited in the tender box by the Dispatch Section till the date and time of bid opening. Bids sent by telex, cable or facsimile are to be ignored and rejected; and

3) For bulky/oversized bids which cannot be dropped into tender boxes, the officials authorised to receive such bids shall maintain proper records and provide a signed receipt with date and time to the bearer of the bid. He will also sign on the cover, duly indicating the date and time of receipt of the tender(s). Names and designations of at least two such authorised officers should be mentioned in the bid documents.

Withdraw/ Amendments / Modifications to Bids by Bidders: The tenderer, after submitting its tender, is permitted to withdraw/alter/modify its tender so long such withdrawal/alterations/modifications are received duly sealed and marked like original tender, up to the date & time of receipt of tender. Any withdrawal/amendment/modification received after the prescribed date & time of receipt of tenders are not to be considered.

Procedures to be followed during Bid Opening: Immediately after the deadline for bid submission, procuring entity shall proceed to the bid opening. In e-procurement, bids are opened online as detailed in Appendix 3. In offline tenders, the BOC shall comprise one officer each from the procuring entity and Associated/ integrated Finance.

i) The authorised representatives of bidders, who intend to attend the tender opening in OTE/ GTE/SITE are to bring with them letters of authority from the corresponding bidder. The prescribed format for the letter of authority for attending the bid opening should be given in the bidding document. All bids-opening activities should be carried out demonstrably before such a gathering. The prescribed format for the bid opening attendance sheet and report are given at Annexure 10;

ii) At a prescheduled date and time, the BOC of the day should get the particular tender box opened, after ensuring and demonstrating that the seal on the box has not been tampered with. All bids should be collected from the tender box. Bids for tenders not opening on that day should be put back into the box and the box resealed. Sometimes, there would be tenders dropped wrongly into this tender box. Such wrongly dropped tenders with appropriate endorsement should be put into the appropriate box or sent to the Tender Committee (TC) concerned, if the date of opening is over. The bids for different tenders opening on the day (including oversized bids, which were submitted to designated officers) should be sorted, and a count for each tender should be announced and recorded,
particularly noting any modifying/altering/withdrawal of bids. BOC should ensure and demonstrate that bid envelopes are duly sealed and untampered. Late bids should be separately counted but kept aside and not opened. In the case of an advertised tender enquiry or limited tender enquiry, late bids (that is, bids received after the specified date and time for receipt of bids) should not be considered (Rule 165 of GFR 2017);

iii) After opening, every tender shall be numbered serially (say 3/14 – if it is the third bid out of 14 total), initialled, and dated on the first page by the BOC. Each page of the price schedule or letter attached to it shall also be similarly initialled, particularly the prices, delivery period, and so on, which shall also be circled and initialled along with the date. Any other page containing significant information should also be dealt with similarly. Blank tenders, if any, should be marked accordingly by the BOC. The original (and duplicate, if any) copies in a tender set are to be marked accordingly by the BOC;

iv) Erasure/cutting/overwriting/use of whitener/columns left unfilled in tenders, if any, shall be initialled along with date and time and numbered by the officials opening the tenders and total number of such noticed alterations (or the absence of any alteration) should be explicitly marked on the first page of the bid. Wherever quantity/amount is written only in figures, the BOC should write them in words. All rebates/discounts should be similarly circled, numbered and signed. In the absence of any alteration/overwriting/whitener/blanks, the remark “no corrections noted” should be written. Similarly, the absence of discounts should be marked with “no discounts noted;”

v) The BOC is to announce the salient features of the tenders such as description and specification of the goods, quoted price, terms of delivery, delivery period, discount, if any, whether EMD furnished or not, and any other special feature of the tender for the information of the representatives attending the tender opening. No clarifications by tenderers should be entertained or allowed to be recorded during the bid opening. It should be understood that BOC has no authority to reject any tender at the tender opening stage;

vi) Proper sealing and codification need to be done on samples as well for samples which accompany the bid. These should be kept for reference under lock and key. Details should be recorded in the sample register maintained in the opening section. Documents related to money should be noted in the bid opening report/register and handed over to the Finance Section for safe custody and monitoring; and

vii) A bid opening report containing the names of the tenderers (serial number wise), salient features of the tenders, as read out during the public opening of tenders, will be prepared by the tender opening officers, and duly signed by them along with the date and time. The tenders that have been opened, list of the representatives attending the tender opening, and bid opening report are to be handed over to the nominated purchase officer and an acknowledgement obtained for him.

Bidding Process- Risks and Mitigations

Risk Mitigation

Exceptions to an open bidding process are abused, leading to single source processes. Rigorously follow the conditions under which open tendering can be dispensed

Bidding Process- Risks and Mitigations

Risk Mitigation

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When short lists are used, the process of preparation of short lists may be non-transparent and all eligible firms may not be included and some ineligible firms may get included.

Registration of bidders/contractors: All major procuring Departments must keep a list of registered bidders for use in restricted bidding. Publicise even restricted bids on your website. Bidders for LTE/SLTE may be transparently selected with the approval of CA.

Pre-qualification criteria: PQB has the potential of getting misused or being applied without considering the restrictive nature of competition. PQC should be relevant to the quality requirements and neither be very stringent nor very lax to restrict/facilitate the entry of bidders. These criteria should be clear, unambiguous, exhaustive and yet specific. Also, there should be fair competition.

Lay down criteria when two stage bidding is warranted. Also lay down model PQC criteria for different types of procurements.

Invitation to tender (an open bid) is not well publicised or gives insufficient time, thereby restricting the number of bidders that participate.

Publicity and adequate time for bid submission must be ensured. Require a higher level approval for short bid submission period.

Evaluation criteria are not set from the beginning or are not objective or not clearly stated in the bid documents, thereby making them prone to being abused.

Objective, relevant and clearly stated evaluation criteria must be specified in the bid document.
BANGALORE BRANCH

30th June 2023 – Consulate General of Canada, Bengaluru Meet: IIMM Bangalore Branch organized a meeting with Consulat General of Canada, Bengaluru on 30th June 2023 (Friday) at IIMM Office premises. Office Bearers and N.C. Membres attended the meeting. Dr. Sengottaiyan Branch Chairman welcomed the guest Mrs. Rupa KN, Trade Commissionner / Déleguée Commerciale, Consulat General of Canada, Bengaluru with a bouquet.

Mr. G Balasubramanian, Co-ordinator made a presentation about IIMM and its Professional activities. Ms. Rupa K.N. Trade Commissionner, Bengaluru explained about the activités of Consulate général du Canada and expressed interest in collaborating with IIMM, Bangalore to bring expertise in sustainable supply chain and technologies, and also to give some programs to IIMM Professionals and Member that are mutually beneficial.

Dr. P. Sengottaiyan Welcoming Canada Consulat Ms Roopa N.S.

Group of Delegates with Faculty

Mr. Kamalendu Sith, GM of Gokadas, Faculty of IIMM Handling session

Mr. Sudhendra Dankanikote MD of GLIT, Speaker handling the session

5th July 2023 – Webinar: Indian Institute of Materials Management, and World Trade Center, Bengaluru, organized a webinar on ‘How to Choose the Right Valuation Methodology for your Company?’ on 5th July 2023 (Wednesday) (Zoom meet). Dr. P. Sengottaiyan, Branch Chairman welcomed the gathering, and Mr. Vivek George from WTC introduced the speaker Mr. CA Sreejith Kuniyil, Managing Partner, Capitaine Consultants LLP. The Speaker spoke on the topic and covered the session on Taxational and FEMA provisions that encompass valuation. His talk was very informative and he expressed that most business owners fail to understand the various requirements that surround business valuation, which often results in the valuation report proving to be insufficient for their cause. This
will have a significant/ negative impact especially if they are looking to raise funds. The program topic was excellent and well received by the Members and SCM/MM Professionals.

Webinar on 5th July 2023 (Wednesday) Speaker CA Sreejith Kunjil, Managing Partner Capitaine Consultants LLP addressing the gathering.

8th July 2023 – Workshop: IIMM Bangalore Branch organised workshop on Effective Inventory Management on 8th July 2023 at Paraag Hotel, Bangalore. Senior Faculty of IIMM Mr. Jayaraman, Mr. T.S. Balachandran, Mr. Kamalendu Sith, GM of Gokaldas Exports, and Mr. Sudhendra Dankaniokote, Managing Director of GILP Private Limited handled the sessions. About 30 delegates from various sectors/organisations attended the workshop. We received the very good feed back from the participants.

The 8th CPO Dialogue hosted in partnership with SAPand Kolkata branch was another landmark in spreading knowledge and networking, that IIMM stands for. It was on the back of similar successful events in Mumbai, Delhi, Bangalore, Chennai, Pune and Hyderabad.

Master of Ceremony was Mr. Surendra Deodhar, VP Materials, Reliance Life Sciences, National Secretary and Treasurer of IIMM.

25th July 2023 – Induction session for CSCM 25th Batch (Online): IIMM Bangalore Branch organized an Induction session for Short Term Certificate in Supply Chain Management Course (CSCM) (Online) on 23rd July 2023 (Sunday). Mr. G. Balasubramanian, Senior Faculty conducted Induction session for the CSCM 25th Batch students.

MUMBAI BRANCH

The next edition of CPO Dialogue was conducted at Kolkata on 23 June 2023, at HotelVivanta. A number of CPOs from leading organizations participated in the event spearheaded by Mr. B.V. Iyer, CPO, Deccan Chemicals, Former National President and Convener for CPO Forum of IIMM.

The event at Pune started with welcome address by Chairman, IIMM Kolkata, Mr. Kaushik Roy; followed by the EC Member of IIMM Kolkata, Mr. Sanjay Gupta. Both the speakers gave a glimpse of the journey of IIMM since inception, and some of the events in the recent past. Concluding session was by the Vice Chairman, IIMM Mumbai, Mr. Swapnil Dubey.
Mr. Debasis Mazumdar, Director, Centre of Excellence for Intelligent Spend and Business Network, SAP. He highlighted the need for organizations to adopt a different perspective of spend management. He went on to touch upon the value derived from suppliers, resilience, proactively controlling sustainability, building responsive workforce, digitalization, collaboration and forward sourcing. And how integrated suite of SAP solutions can facilitate.

Mr. B.V. Iyer then moderated a group discussion, where the entire group participated. He reminded the audience that in the new world ‘disruption’ is the only constant; referred to the McKinsey report which placed India as the fastest growing economy. Introduced the change in global perspective from VUCA to BANI and the way to counter.

Mr. Vinod Choudhary – Sr. Deputy General Manager SCM, L&T Minerals and Metals, Dubai shared an incident of agility where ABB – for the first time decided to airlift large sized metal sheets.

Mr. Rana Das, Chief Procurement Delivery Management, Tata Steel, and VP East for IIMM, informed the house how Category Management, and a framework of RSSSC (Risk, Strategic Sourcing, Sustainability), lifetime cost is used at Tata Steel.

Mr. Sandip Pratap, Head Procurement, Eveready shared about Risk Mitigation.

Mr. Saunik Chanda, General Manager – Procurement, Exide supplemented the Risk Management sharing by adding how they use comprehensive evaluation including Financial, Technical, Political at RFQ stage.

Mr. Ashok Dasgupta, the First National President of IIMM, Former Executive Director, CSC, shared how genuine supplier partnership helped him obtain quick help during crisis.

On the aspect of digitalization, Mr. Amit Bhowmik, Head of Procurement – RSE& South Asia at Linde, shared use of Supplier Sensitivity Analysis, significant productivity enhancement through Robotic Process Automation. He also recalled with pride, how Linde supplied India with oxygen during Covid times. Mr. B.V Iyer, Mr. Amit Bhowmik, Mr. Rana Das also added to the sharing.

Mr. Sanjay Gupta, shared about ASRS, outsourcing, warehouse automation.

Mr. Somnath Dhal, DTDC Couriers, talked about hub and spoke model, automated scanning, sorting all parcels to deliver smiles.

Mr. Ashok Saboo – BinayOpto Electronics Pvt. Ltd Shared his experience of substituting materials and building supplier capability brought tremendous value through longer life, reduced prices.

Mr. Arun Sankar, Haldia Petrochem informed the way they use Business Transformation projects to generate value.

Skill building was the last point to be discussed. Mr. T.K. Mishra, Advisor, Coal India shared how the entire ecosystem of Coal India, other Public Sector organizations and various departments of Government of India worked together to provide energy security thru coal supply.

Mr. B.V. Iyer shared a perspective of the value added by Procurement beyond the traditional role of savings.

In summary, it was a wonderful, interactive session where all added value to each other. Learning from Collective wisdom.

Yet another milestone for IIMM.

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**KANPUR BRANCH**

IIMM Kanpur branch have organised Annual General Meeting on 22/07/2023 in Suthi Mani Restaurant prior 21 days advance notice to all members for the year 2022-23 along with Election of New Committee of Kanpur branch for the year 2023-25. The welcome address and entire programme was compared by Mr. Gopi Krishna Agnihotri, National Councillor. The present committee was called to share the dais.

Mr. Sanjay Awasthi, Chairman of Kanpur branch requested to start AGM for the year 2022-23. The Balance Sheet for the year 2022-23 was presented by Mr. Abhishek Rai, Hony. Treasurer which was First by Mr. Ravi Ranjan and Seconded by Mr. Sampurnanand
Sharma, subsequently passed by all present members by clapping.

As per agenda point the election result of new Branch Committee for the year 2023-25 was declared by Election Officer, Mr. Ashwani Kumar, Life Member of the branch. The new branch Committee of Kanpur is as follows :-

1. Mr. Kailash Nath Chairman
2. Mr. Abhishek Rai. Vice Chairman.
3. Mr. Sanjay Awasthi Hony. Secretary
4. Mr. Saurabh Chaturvedi Hony. Treasurer
5. Mr. Gopi Krishna Agnihotri N.C.
6. Mr. Abhishek Kandpal N.C.
7. Mr. Sampurnanand Sharma Executive Member
8. Mr. Hemraj Gambhir Executive Member.
9. Mr. Ravi Ranjan Executive Member

The elected Office bearers have resumed the charge of their post. The vote of thanks was given by Mr. Abhishek Kandpal and AGM was concluded followed by Lunch.

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**Indian Institute of Materials Management**

**Article Competition Writing 2023**

**On**

“Role of Supply Chain in making India a USD 5 trillion Economy & beyond by 2025”

**Heartiest Congratulations to the best three articles authored by**

1. Nitin Joshi – IIMM Pune – 1st Prize
2. Hari Ram Karthikeyan, Rajesh – IIMM Vadodara – 2nd Prize
3. Dr. Venkateswaran R & Dr. Babu Jose – IIMM Cochin – 3rd Prize
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