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MATERIALS MANAGEMENT REVIEW

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IIMM RAJKOT BRANCH

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OPENING OF RAJKOT BRANCH

From the Desk of National President & Editor in Chief

Greetings from your National President!!!

In the ever-evolving global landscape, supply chain management (SCM) has moved from the backstage of business operations to center stage, impacting not only business performance, but also country resilience and consumer experience. Once viewed as a linear process of moving goods from point A to B, today's supply chains are complex, dynamic and increasingly vulnerable — requiring constant vigilance, innovation and strategic foresight.

Geopolitical tensions, such as the war between Russia and Ukraine, and trade disputes between major economies continue to disrupt supply routes and change sourcing strategies. Climate change and natural disasters are making the situation even more unpredictable. In this context, supply chains are no longer just operational tools but strategic assets. Companies are moving from "just-in-time" models, where lean inventories are paramount, to more resilient "just-in-case" approaches, where buffers are built up to absorb shocks.

Digitalization is transforming SCM from a reactive to a proactive function. Technologies such as artificial intelligence, machine learning, blockchain and the Internet of Things (IoT) enable real-time tracking, predictive analytics and end-to-end visibility. Cloud-based platforms offer seamless collaboration between global teams, while automation in warehousing and logistics reduces human error and increases efficiency.

But with these technological advances come new challenges cyber security risks, data protection concerns and the need to upskill the workforce. Successful companies will be those that integrate technology not as a one-off solution, but as a culture of continuous improvement.

Today's consumers and regulators demand more than efficiency; they expect transparency, ethical sourcing and environmental responsibility. The pursuit of green supply chains is no longer optional. From reducing carbon footprints to eliminating child labor in procurement, SCM must be aligned with environmental, social and governance (ESG) goals.

This shift towards sustainable supply chains is prompting companies to rethink their materials, transportation methods and even product design. It also encourages circular economy practices that minimize waste and reuse resources.

Despite automation and artificial intelligence, people remain at the heart of SCM. The current shortage of talent in logistics and operations is a significant bottleneck. Investing in training, improving working conditions and building diverse, inclusive teams are critical to long-term success.

In addition, strategic partnerships and supplier relationships are being redefined. Trust, transparency and collaboration are the new currencies of effective supply chain management.

Supply chain management in today's world is a test of adaptability, foresight and integrity. The companies that will lead in the future will not be those with the most extensive supply networks, but those with the most flexible, transparent and accountable. In an era where disruption is the norm, resilience is the ultimate competitive advantage.

Supply chain management must continue to evolve — not only to manage crises, but also to build a more connected, ethical and sustainable global economy.

Lalit Raj Meena
National President
mmr@iimm.org

From the Editor's Desk

Dear SC Professionals!

Greetings from the Desk Editor,

We all know that approximately ten thousand copies of this periodical of India's apex Professional Institute IIMM are distributed to its members, non-members, industry, academicians etc. every month. Also known to all of us that besides money, lots of efforts of various employees and members & Office Bearers at NHQ of IIMM are involved in communicating the copy to every reader every month well in time. Friends, you will appreciate that this periodical is face of IIMM to readers - especially new readers. The reader will make an impression in his mind about IIMM after going through the articles published in it.

Friends, it is said that at any level of performance, there is always a scope for improvement. Therefore, with an objective to build better image of our Institute, in the minds of readers, I take the opportunity to endeavor legitimately in this direction. I feel confident that with your co-operation and support, we shall definitely be successful in improving the quality of our professional magazine. I, therefore, seek each everyone's suggestions, as to what steps would help us to accomplish our objective i.e. in improving the standard of our MMR. Every body is requested to please send your advice / comments / guiding points at my e-mail address.

In the end, I would request all VPs to kindly contribute at least 1-2 articles for MMR from working SCM Professionals in industry in your region.

Thanking you and looking forward to your kind co-operation,

O.P. LONGIA
Desk Editor MMR

MATERIALS MANAGEMENT REVIEW

Volume 21 - Issue 9 **(July 2025)**

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MANAGING REVERSE FLOWS IN SUPPLY CHAINS – ISSUES AND CONCERNS

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Abstract : Managing reverse flow in the supply brings lot of challenges to supply chain managers. This paper explores the importance of reverse flows, types of reverse flows, issues and concerns. The author has classified different types of product recalls by citing automobile, and packaged food product recalls. The traditional and reverse logistics have been illustrated. The reverse flow and reverse logistics have been discussed. The key components of reverse flow in supply chains, types of reverse flows, issues and concerns are discussed. The importances of total quality management (TQM) concepts in operations are also discussed.

Keywords: Product recalls, reverse flow, logistics, supply chains

Introduction : The supply chain encompasses all activities associated with the transformation (conversion) of goods from raw material stage to final stage, when the goods and services reach the end customer. The key components of any supply chain include supply chain planning, design and control flow of materials, information, money transfer, risk transfer and value / title transfer.

The Supply Chain Operations Reference (SCOR) model is unique in that it links business processes, performance metrics, practices and people skills into a unified structure. It is hierarchical in nature, interactive and interlinked (www.apics.org). Figure 1 depicts SCOR Model. SCOR is based 5 distinctive management process components. The process components includes: plan, source, make, deliver and return. SCOR is a process reference model that provides a language for communicating among supply chain partners. SCOR contains 3 levels of process details. Viz i. Top Level (Process Types), ii. Configuration Level (Process categories and iii. Process Element Level (Decompose Processes). Each basic supply chain is 'Chain of Source, Make, Deliver and Return execution process

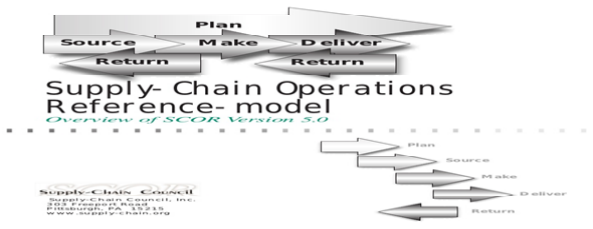

Figure 1: SCOR Model

Table 1 describes the scope of SCM processes components. In this study only the reverse flow in the supply chains has been studied.

Table 1 Scope of SCOR Processes

Process Components	**Scope**
Plan	Demand / Supply Planning and Management.
Source	Sourcing Stocked, Make-to-Order and Engineer – to- Order product.
Make	Make-to-Stock, Make-to- Order, and Engineer- to- Order production execution.
Deliver	Order, warehouse, Transportation and Installation management for stocked, Make-to-order and Engineer- to- Order product.
Return / Recall	Return of Raw Materials (to supplier), and Receipt of Return of finished goods(from customer) including defective products, MRO products and Excess products.

Meaning of Product Recall : A product is the process of retrieving and replacing defective goods for consumers. When a company issues a recall, the company or manufacturer absorbs the cost of replacing and fixing defective product. For big companies, the costs of repairing faulty merchandize can accumulate to multi-billion dollar losses. Product recalls, generally affects the cash flow and brand recognition- generally cannot sustain the financial losses and brand degradation associated with a product recall (NADA, 2019).

Types of Product Recall : Product recalls are classified into three important types: They are i. Voluntary recall, ii. Involuntary recall and iii. After investigation of Regulator / Agency (NHTSA, FSSAI etc) recall.

i. Voluntary Recall / Proactive Recall: Includes recalling products for wrong color painting, plating etc which are minor in nature. This recall will have least/ lowest financial impact to company's business results. Example: Travel mugs by IKEA.

ii. Involuntary Recall: As a result of an agency (NHTSA in USA). The agency after their investigation will file a lawsuit to drive the product recall. Example: Automobile cars recall by GM, Honda Motors, Toyota Motors Maruti Suzuki India Ltd., and Ford Motors.

iii. After Investigation of Agency, commencing the product. This results huge fine / loss on the OEM. Example: MAGGI Two Minutes Noodle by Nestle.

Case Study 1: MAGGI 2 Minutes Noodle by Nestle : Food Safety & Standards Authority of India (FSSAI) asked Nestle to recall Maggi noodles as the Maggi sample contained high level of lead and monosodium glutamate (MSG) beyond its prescribed limits. Quality issue started span out of control. Finally, Nestle left with little choice but to recall the popular noodles from the market. The Executive Vice President (Supply Chain), at Nestle India told to lead the recall process. The team collected 38,000 tons of Maggi noodles from retail stores and destroyed them by first crushing the noodles and then mixing them with fuel and burning in incinerators at 11 cement plants across the country (worth of $50 millions). The entire recall process is huge and complex task. All their plants were closed for 6 months; suppliers keeping large volume of Work-in-Process Inventory (Maida etc) could not be used. More number of people becomes jobless in their plants as well as their supply side. Huge loss to the Nestle in terms of business & profit loss, decline in market share, degradation of brand value and shift in customers loyalty.

Case Study 2: Case Study: Automobile Cars by OEMs : Recently, car manufacturers Toyota Motors(TM), General Motors (GM), Honda Motors (HM), and Ford Motors have suffered the embarrassing consequence of product recalls.

Toyota recent stream of gas pedal recalls resulted in a $ 2 billion loss consisting of repair expenses and lost sale. In conjunction with the financial crisis, Toyota's stock prices dropped more than 20% or $ 35 billion (event based performance).

Both Honda and Toyota have both issued recall over three different Airbags (Takata Airbags) affecting more than 6 lakh vehicles worldwide. In Canada alone, the recalls affect more than 7 lakh cars. The affected models are Acura CL, Acura EL, Acura TL, Acura MDx, Honda Accord, Honda Civic, CR-Vs and Honda Odyssey models from 1997 to 2003 (Voluntary Recall).

Meanwhile, Toyota has also issued two separate recalls of its own. The first one involves Takata Airbags and the second recall also related to Airbags issue. More than 4.24 lakh vehicles are involved in Canada. Collision Repair Magazine reported that United States regulator have been investigating this particular issue , as reports claim that as many as eight people have died when their airbags failed to inflate.

Ford Motors is recalling a total of about 50,000 vehicles in Canada due to electrical issue. Ford also recalled the same vehicles in the United States for switch issues.

General Motors has issued recall during 2016 for more than 4 lakh cars. The company has also spent more than $300 million against the subject product recalls. The company also disbursed millions towards the insurance claims for death / major injuries (Sengottuvelu, 2015).

Maruti Suzuki Maruti Suzuki India Limited today announced to proactively undertake a recall of some petrol variants of Ciaz, Ertiga, Vitara Brezza, S-Cross and XL6. This is to inspect for a possible defect in 181,754 units of these models manufactured from 4th May 2018 to 27th October 2020. Recall campaigns are undertaken globally to rectify faults that may be potential safety defects.

In the interest of customers, Maruti Suzuki has decided to voluntarily recall the affected vehicles for inspection/replacement of Motor Generator Unit, free of cost. Affected vehicle owners would be receiving a communication from Maruti Suzuki authorized workshops. The replacement of the affected part shall start from the first week of November 2021. Till then, customers are requested to avoid driving in water logged areas and direct water spray on electrical/electronic parts in vehicle (Voluntary Recall).

Reverse flow is another term for reverse logistics in the supply chain. This includes planning, implementing and controlling the efficient inbound flow, as well as the storage of goods and related information to recover value or proper disposal.

It's the series of activities required to retrieve a used product from a customer and either dispose of it or reuse it. And for a growing number of manufacturers, in industries ranging from carpets to computers, reverse supply chains are becoming an essential part of business (Daniel & Luk, 2002).

In some cases, companies are being forced to set up reverse supply chains because of environmental regulations or consumer pressures. Beginning in 2003, for example, European Union legislation will require tire manufacturers operating in Europe to arrange for the recycling of one used tire for every new tire they sell. In other cases, companies are taking the initiative, seeing opportunities to reduce their operating costs by reusing products or components. Bosch, for instance, has built a successful business selling power hand tools that have been remanufactured.

In general, the companies that have been most successful with their reverse supply chains are those that closely coordinate them with their forward supply chains, creating what we call a closed-loop system. For example, they make product design and manufacturing decisions with eventual recycling and reconditioning in mind. Bosch is a good example.

Reverse Logistics vs. Traditional Logistics

Traditional product flow starts with suppliers and moves on to a factory or distributor. From there, the goods go to retailers and customers (Forward logistics). Thus, while forward logistics is the movement of products from the manufacturing unit or warehousing unit to the consumer, reverse logistics is the movement of goods back from the consumer to the warehousing unit

Reverse logistics management starts at the consumer and, moving in the opposite direction, returns products to any point along the supply chain. In reverse logistics, goods move from the end consumer back to the seller or manufacturer. The most common example of reverse logistics is when a consumer returns a purchased item for a refund. The returned products may be resold or disposed of permanently. Figure 2 shows the difference between forward logistics and reverse logistics.

Products can be returned for various reasons, such as product recalls, product damage, lack of demand and customer dissatisfaction. The challenges associated with reverse logistics can be complicated by the fact that returned products often move in small quantities and may more outside forward distribution channels (Murphy & Knemeyer, 2019).

In addition, reverse logistics can be four to five times more expensive than forward logistics and the reverse logistics process can take 12 times as many steps, i.e., assessing the returned product and repairing the returned product as the forward logistics process (Murphy & Knemeyer, 2019). .

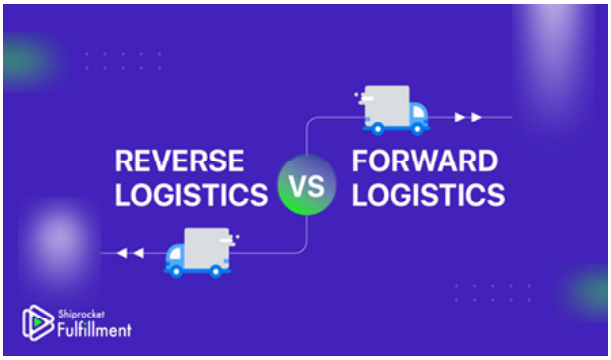

Figure 2: Forward and Reverse Logistics

Product Recalls Vs Reverse Flow in Supply Chains

A product recall is a request to return a product after the discovery of safety issues or product defects that might endanger the consumer or put the maker/seller at risk of legal action. The recall is an effort to limit liability for corporate negligence which can cause significant legal costs due to releasing to the consumer a product that could endanger someone's life and the economic loss resulting from unwanted publicity. Recalls are the first process which comes to our mind about reverse logistics.

But, there are many other processes which are covered by reverse logistics concept. Seasonal products, end of life programs, parts and repairs are other examples. Gencer and Akkucuk (2015) report different examples about reverse logistics. The same report also classifies reverse logistics activities into different categories, each with their own unique challenges and opportunities

Reverse Logistics Vs Reverse Flow in Supply Chains

In reverse logistics, goods move from the end consumer back to the seller or manufacturer. The most common example of reverse logistics is when a consumer returns a purchased item for a refund. The returned products may be resold or disposed of permanently

Consumers purchase iPhones and enjoy the product until they want to upgrade their product. When consumers return to a store to buy the latest model, Apple offers consumers discounts on a new product if they turn in their old product. Apple then collects the old models and brings the products back to their factories.

Reverse supply chain refers to the movement of goods from customer to vendor or at least one step backward up the supply chain. Returning an electric motor from a commercial supply house back to the manufacturer because of a packaging defect is an example of reverse logistics that doesn't involve the end user.

Key components in reverse supply chains

The key components in reverse supply chains are: Production acquisition, reverse logistics, inspection and disposition, reconditioning and distribution & sales.

Types of Reverse Flow in Supply Chains

i. Products that have failed, but can be repaired or reconditioned.
ii. Products that are sold, obsolete, but still have some salvage value.
iii. Products that are unsold from retailers due to overstock.
iv. Products being recalled due to a safety or quality defect that may be repaired or salvaged.
v. Products needing' pull and replace' repair before being put back in service.
vi. Products that can be recycled such as pallets, containers, computer printers cartridges.
vii. Products or parts that can be remanufactured and resold.
viii. Scrap metal that can be recovered and used as a raw material for further manufacturing.

Key issues and concerns

i. Logistics cost of returns is very high due to the uneven size, damages and generally poorer condition of packaging.
ii. Retailers lose 3 to 5 percent of gross sales to returns.
iii. Internet sales (online sales) are high compared to

store sale returns.

iv. In the reverse flow of products in supply chains require lot of additional documents like inspection reports, not for sale certificate, insurance assessment report in case of transit damages etc.

v. Re-exporting the products to OEMs for rectification / repair takes lot of time.

vi. Repackaging requires additional resources like packing materials etc.

vii. Sometimes, the buyer and seller will get into argument mode and further to legal litigations. This spoils the supplier and buyer relationship.

Conclusion : Product recalls, generally affects the cash flow and brand equity. Small firms cannot sustain the financial losses and brand degradation associated with a product recall. Most of product recalls are related to poor design, wrong material usage, not compliance to standards / specifications, wrong process including under processing or over processing. So, it is connected to quality of the final product. It is found that total quality cost consisting of appraisal costs, prevention costs, failure costs including internal failure and external failure. Total quality cost amounts to 100%, out of which appraisal costs constitutes 15 -20%, prevention costs 25 – 30% and failure costs works out to 50-60%. Therefore, it is important that OEMs should move from 'fire fighting' to total quality management (TQM) approach (prevention in quality management). All entities in the supply chain should focus on total quality management principles. Every company should have a products recall policy and the most priority should be given for this.

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EMPOWERING WAREHOUSES WITH ADVANCED 3PL WAREHOUSE MANAGEMENT SOFTWARE SOLUTIONS

VISVENDRA SINGH IS A SUPPLY CHAIN AND WMS EXPERT

I've spent my past decade immersed in the world of logistics and supply chain management, and have learned one thing: a warehouse is not just aplace that stores things, it's the heart of modern commerce. If you're tired of dealing with broken processes, an out-of-control inventory, or late orders, remember you are not alone. I've seen many fortune businesses affected as well. That's when I discovered and learned about the transformative next-gen power of advanced 3PL warehouse software solutions. In this blog, I will share how an advanced 3PL management software is revolutionizing warehouses, helping them flourish in a much-competitive landscape, and share some practical insights that can make a significant difference in your logistics operations.

Understanding 3PL Warehouse Software and its Importance

Ever thought why many businesses are outsourcing their logistics? Old-school techniques like spreadsheets and paper no longer work in the ever-evolving e-commerce world. I haveseen businesses reinvent their entire flows just by outsourcing logistics to a dedicated 3PL supplier utilizing modern 3PL WMS software.

An effective 3PL WMS is like a digital spine that joins every element of your warehouse – from the receiving and storing of goods to the fulfilment of orders and returns management. It's a single, centralized platform that can manage multiple clients, track real-time inventory, automate billing processes, and seamlessly integrate with your popular e-commerce platforms. You can focus on crucial tasks while the software scales operations 10X, minimize errors and expense, and facilitate global expansion.

For businesses shifting away from outdated logistics methods, **staying updated with industry trends** is crucial. Many insightful discussions on the latest warehouse management strategies can be found on platforms like Fulfillor, offering practical insights on optimizing 3PL operations.

Top Essential Features to Look for When Selecting 3PL Warehouse Management Software?

There are numerous systems available however, a great

3PL WMS must include some key capabilities:

1. Multi-Client Management: Managing inventories and ordersfor multiple clients is a logistical nightmare. Your software should easily handle inventories and orders across clients, always maintaining a rigid separation between your clients and customized workflows that reduce the chances of amix-up so errors don't creep into the process.

2. Complete Visibility of Real-TimeInventory : Ever had a nightmare when a customer orders something, and it turns out it's out of stock? Knowing exactly what is available in your warehouse at any given moment is paramount. Real-time tracking means no more guesswork—only accurate and current informationto avoid stockouts and overstocking.

3. Efficient Order Fulfilment & Automation : In my experience, automation is a lifesaver. From scanning barcodes to orchestrating the pick-pack-ship process, automating these tasks reduces human error, and speeds up delivery.

4. Automated Billing: When you're handling multiple clients, billing can easily get messy and turn out to be a headache. Look out for a 3PL solution that automates invoicing with customizable templates, ensuring accurate invoicing every time.

5. Seamless Integration withE-commerce Projects: Consumers shop today on multiple channels. You should opt for a WMS that can easily sync and integrate with vital platforms like Shopify,Amazon or Magento means you can process orders from all ends.

6. Scalability & Flexibility: As your business expands, so too must your warehouse. I've watched companies effortlessly grow their operations smoothly with software that responds to varying demands,higher order volumes, and more warehouses without breaking a sweat.

7. Customer Portalfor Transparency: Transparency builds trust. A dedicated customer portal enables clientsto track their inventory, shipments, and billing on their own and in real time, and from my experience, that's abig win for customer satisfaction.

8. Advanced Reporting &Analytics: Do you know that data-driven decisions are always the best decisions? Customizable reporting tools will help you to analyze performance metrics, pinpoint bottlenecks, and optimize operations—all based on real-time data.

9. Efficient ReturnsManagement: Returns can be a logistical headache, but a strong 3PL system makes returns as seamless as the restof your operation.

Advantages of 3PL Warehouse Management Software

§ **Increased Operating Efficiency:** Automation and simplified workflows allowed us to process more orders faster with less effort, increasing productivity significantly.

§ **Better Accuracy & Reduced Errors:** Gone are the days of mistakes. With real-time tracking and automated workflows, orders will be processed correctly anddelivered on time.

§ **Improved Customer Experience:** On-time and accurate deliveries make customers happy and induce repeat business which is the goal of all businesses.

§ **Scalability As Per Growth:** Whether you're managing a single outlet or a country-wide chain, a seamless system can scale with your growth.

§ **Data-Driven Decision Making:** With in-depth analytics, you can make smarter decisions that can help propel your business forward in the right direction.

How to Select the Best 3PL Warehouse Management Software?

Choosing the right software is not straightforward, butwith this checklist, you will ensure you are making the right choice:

§ Know your specific business needs, challenges, and goals.

§ Look for customization and flexible options because your software should scale as your business grows.

§ Consider user-friendliness and pick a system that is most intuitive and easy to learn.

§ Consider integration capabilities and ensure that your software can interconnect with other existing applications: be it yourERP system, e-commerce site, or other logistics tools.

§ Look for a 3PL provider that provides strong support and training during the onboarding, implementation, and beyond.

Conclusion : Leveraging advanced 3PL warehouse management software is a great investment. By automating repetitive tasks, minimizing errors, and amplifying throughput, you are paving the wayfor meaningful cost savings and revenue growth. I have witnessed companies drastically increase their ROIin a matter of months after implementing these modern 3PL WMS systems. Let me tell you, as a business owner, choosing the right WMS software will match your day-to-day processes and lead to sustainable, long-term growth. Whether you are an emerging e-comm business or an established 3PL business owner, 3PL WMS solutions like Fulfillor enable warehouses to scale systematically, eradicate operational bottlenecks, and ensure customer satisfaction.

Source: www.allthingssupplychain.com

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INSIDE OUT: MASTERING INNER BANI FOR SCM EXCELLENCE

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Introduction

In an era where supply chains are being reshaped by digital disruption, climate shocks, and geopolitical shifts, professionals are not just navigating external volatility—they're wrestling with internal turbulence too. The BANI framework—Brittle, Anxious, Nonlinear, Incomprehensible—once used to describe chaotic business environments, is now a powerful lens to understand our inner emotional landscapes. Recent insights from the World Economic Forum's Future of Jobs Report 2025 indicate that emotional resilience and adaptability are among the top core skills expected to surge by 2030 (WEF, 2025). Similarly, NASSCOM's Future of Work 2024 report underscores learning agility and personal adaptability as key attributes for thriving in AI-augmented, high-pressure environments (NASSCOM, 2024). Whether managing erratic supplier behaviour or last-mile disruptions, inner instability can quietly derail performance. Imagine a procurement manager freezing mid-crisis due to anxiety—that's inner BANI at work. Mastering it from within isn't optional anymore; it's the new cornerstone of SCM excellence.

Understanding Your Inner BANI

While BANI was originally coined to describe unpredictable external environments, its elements deeply mirror our internal psychological states—especially for supply chain professionals constantly navigating high-stakes scenarios.

- Brittle reflects emotional fragility—cracking under pressure during sudden disruptions, like system outages or shipment delays.
- Anxious surfaces as chronic worry about outcomes, often impairing judgment during supplier renegotiations or cost escalations.
- Nonlinear emotions create unpredictable reactions, such as overconfidence one day and decision paralysis the next, impacting consistency in demand planning or stakeholder coordination.
- Incomprehensible refers to feeling overwhelmed when systems, data, or market shifts become too complex to process clearly—common during tech transitions like ERP upgrades or AI adoption.

Recognizing these patterns allows SCM professionals to catch emotional misalignments early, creating space for reflection and resilience amidst operational chaos.

Impact of Inner BANI on SCM Performance

Unmanaged inner BANI can quietly erode key competencies essential for supply chain success—such as decision-making, communication, collaboration, and problem-solving. For instance, anxiety may lead to poor communication during stockouts, resulting in delayed customer updates or misaligned team actions. Emotional brittleness can hamper supplier negotiations, where composure and clarity are critical. Nonlinear emotional states might cause inconsistent responses to similar challenges, confusing stakeholders and delaying resolution. When professionals feel overwhelmed (incomprehensible), they may avoid or delay critical analysis, risking missed signals in inventory trends or regulatory shifts. In a field driven by precision and agility, these internal disruptions can cascade into costly inefficiencies and strained relationships across the supply chain.

Strategies for Mastering Inner BANI

To thrive in today's high-pressure supply chain roles, mastering inner BANI requires intentional self-leadership and emotional regulation. Here are actionable strategies:

- **Emotional Intelligence (EI) -** Cultivating EI helps professionals become more aware of their triggers and manage emotional reactions. Simple daily practices like pausing before responding, or empathetic listening in tense meetings, build relational harmony.
- **Mindfulness & Reflection -** Brief mindfulness exercises—such as Oxygen Advantage, deep breathing before high-stake negotiations or five-

minute body scans—can reduce anxiety and restore clarity. Reflective journaling helps identify patterns behind brittle reactions or emotional fluctuations.

- **Resilience Building -** Embrace adaptability through scenario planning and accepting change as a constant. Building micro-habits, like celebrating small wins during supply chain disruptions, strengthens psychological endurance.
- **Learning Agility -** Engage in continuous learning—be it tech upskilling or leadership coaching—to prevent feelings of incomprehensibility. This boosts confidence and reduces overwhelm in dynamic environments.
- **Self-Awareness Tools -** Use self-check-ins or mental dashboards to track mood, stress, and focus. Apps like MoodMeter or Calm can support ongoing emotional hygiene.

Integrating these techniques into daily workflows not only stabilizes inner BANI but also enhances strategic thinking, collaboration, and leadership effectiveness across the supply chain.

Connecting Inner Mastery to SCM Excellence

When supply chain professionals cultivate inner mastery, they build emotional stability, sharpen decision-making, and foster empathetic collaboration—core traits for SCM excellence. Teams led by individuals grounded in self-awareness and resilience respond to disruptions with agility rather than panic. For instance, during a major port delay, a calm and mindful SCM leader maintained team morale and swiftly restructured distribution plans, minimizing losses. Such inner alignment empowers professionals to transform volatility into opportunity, enabling supply chains to become not only efficient—but truly adaptive, ethical, and future-ready.

Conclusion

In a Life 4.0 world marked by volatility and complexity, mastering inner BANI is no longer optional for supply chain professionals—it's foundational. Emotional clarity, resilience, and conscious action enable individuals to lead with purpose and build agile, value-driven supply chains. Inner transformation fosters outer excellence, proving that the journey to SCM success truly begins from within.

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Indian Institute of Materials Management

MISSION

- To promote professional excellence in Materials Management towards National Prosperity through sustainable development.

OBJECTIVE

- To secure a wider recognition of and promote the importance of efficient materials management in commercial and industrial undertakings.
- To safe guard and elevate the professional status of individuals engaged in materials management faculty.
- To constantly impart advanced professional knowledge and thus improve the skill of the person engaged in the materials management function.
- Propagate and promote among the members strict adherence to IIMM code and ethics.

CODE OF ETHICS

- To consider first the total interest of one's organisation in all transactions without impairing the dignity and responsibility of one's office :
- To buy without prejudice, seeking to obtain the maximum ultimate value for each rupee of expenditure.
- To subscribe and work for honesty and truth in buying and selling; to denounce all forms and manifestations of commercial bribery and to eschew anti-social practices.
- To accord a prompt and courteous reception so far as conditions will permit, to all who call up on legitimate business mission.
- To respect one's obligations and those of one's organisation consistent with good business practices.

ADVANCING HEALTHCARE ACCESSIBILITY AND SUSTAINABLE DEVELOPMENT

RICHARD CHAU

Merck KGaA (Merck), a multinational science and technology company with an illustrious history of 356 years, currently covers business across three major sectors, namely, Healthcare, Life Sciences and Electronics with an active presence in 65 countries. Merck places special emphasis on its strong operations within the APAC region, which includes 11 key markets such as Australia, Korea, Singapore, and Taiwan, meanwhile demonstrating a significant presence in China and Japan as well. GeneOnline is honored to have Alexandre de Muralt, Merck Healthcare's APAC Senior Vice President, for an interview. With his passion for the region and ample managerial experience, de Muralt reached his current position in July 2023, leading a vibrant team of 1,200 people with a vision of making Merck Healthcare's products more accessible to patients with unmet medical needs across the region. The interview not only highlights Merck's APAC strategic priorities and initiatives in improving healthcare accessibility, but also aims to discover the company's commitments and ongoing efforts in pursuing sustainable development goals.

The interview opened with a discussion of Merck's vision to enhance its presence in the APAC region and de Muralt began with a strong statement: "Our purpose is to create, improve, and prolong life." In fact, from fertility solutions aiding parenthood aspirations to treatments for diabetes, cardiovascular diseases, thyroid disorders and cancers, the company has gained a regional competitive edge with its diverse and holistic portfolios. Notably, Merck's dedication to addressing unique medical needs distinguishes it in the industry, with a keen focus on both creating new solutions and enhancing existing treatments.

Tailored Approaches for Local Realities, Bridging Gaps to Healthcare Accessibility

As de Muralt elaborates, the APAC region's healthcare landscape is marked by cultural, linguistic, and systemic diversity. Navigating these diverse healthcare ecosystems, Merck tailors its corporate strategies to meet specific market needs. From reimbursement healthcare systems in markets like Taiwan, Korea and Australia to markets that focus on a predominantly out-of-pocket expenses ecosystem, Merck adapts its approach to ensure accessibility and availability of its drugs .

Understanding the varying prevalence of diseases, Merck prioritizes its therapeutic focus; for example, Oncology in Taiwan, where tumor types such as head and neck, gastric and colorectal cancer are relatively more prevalent while focusing on cardiovascular diseases, diabetes, and thyroid issues in markets where the diagnostic rates are still alarming. In particular, de Muralt shared insights into Merck's programs addressing critical gaps in disease diagnosis and treatment, citing hypothyroidism in Indonesia as an example. In comparison to Australia, where the diagnosis rate of hypothyroidism is around 80%, not more than 3% of cases are diagnosed in Indonesia. To address this situation, the company collaborates with local healthcare stakeholders in raising public awareness, improving diagnosis for high-risk individuals and screening for congenital hypothyroidism in pregnant women and newborns, as well as providing easier access to essential treatments through affordable pricing.

Moreover, following the success of pilot testing in Indonesia, Merck intends to extend this effort to other countries facing the challenge of underdiagnosis of hypothyroidism, illustrating its determination to bridge healthcare disparities and enhance patient outcomes across diverse regional contexts.

Advancing APAC Clinical Trials and Research

The interview also shed light on Merck's plan to advance clinical research and development in the APAC region, driven by the region's huge and burgeoning population as well as its unique disease landscape thanks to variations in genetic and lifestyle factors. According to de Muralt, Merck recognizes the necessity of engaging diverse populations in clinical trials to validate the safety and efficacy of its medications. Leveraging Asia's robust scientific ecosystem, dedicated R&D hubs in Japan and China, and teams of local clinical and medical affairs experts in key markets such as Korea, Taiwan and Singapore, the company is actively pursuing trials in the APAC region and enrolling Asian patients to align with regulatory requirements. De Muralt stressed that Merck strategically focuses on oncology, immunology, and neurology, aiming to deliver breakthrough and first-in-class therapies to address unmet medical needs in these therapies.

Leading Merck APAC to a New Height with Past Lessons Learned

Given de Muralt's rich experience in the APAC healthcare market through his long career in locations such as Vietnam, Hong Kong, Taiwan, and Japan, the interview also explored how he would leverage his past successes to guide Merck's development in the region. Originated from an academic background rooted in political

sciences and social anthropology, blended with extensive global exposure through having lived in nine countries, de Muralt upholds the belief that a workplace culture of diversity, equity, inclusion and belonging is essential in shaping Merck's APAC operational strategy. Through his statement "Diversity is not just about gender. It's also about culture, age, experience and the feeling of belonging," de Muralt stressed the importance of drawing on the unique perspectives of both younger and older generations, as well as the expertise of people from various backgrounds to create a cohesive environment and spur innovation and growth within the company.

Drawing from his experiences in diverse market archetypes across countries, de Muralt also explained Merck's strategic approach tailored to specific healthcare environments. From countries with limited healthcare reimbursement to fully reimbursed markets, Merck's regional strategy is underpinned by strategic thinking and collaboration with local stakeholders, allowing the company to identify unique opportunities and formulate tailored plans for each market.

Tackling Demographic Challenges Through Collaborative Initiatives

Talking about the demographic issues faced by many APAC countries, de Muralt particularly mentioned the sub-replacement birth rates in countries including Japan, Korea, Taiwan and Singapore. "Normally we need 2.1 children born per woman to regenerate the population. However, in these markets, sometimes their birth rates are even below one. That means a real challenge." Recognizing the economic and healthcare implications of declining populations, Merck has launched the "Fertility Counts" initiative as an attempt to address the societal impact of low birth rates.

The campaign began with a report with the support of Economist Impact, which assessed governmental measures of different countries regarding the issue and their effectiveness. Then, by engaging with governments, academia, and private sector partners, Merck actively seeks to stimulate discussions and provide feasible solutions. "We believe that creating this private-public partnership is particularly important. Through the Fertility Counts initiative, we differentiate ourselves by bringing thinking and solutions that the government can consider applying in their legislature," said de Muralt.

Going Beyond Emission Reduction, Pioneering a Sustainable Future

With the rising awareness of sustainable development in recent years, the implementation of ESG concepts and sustainability practices has become a key to future corporate viability. During the interview, de Muralt emphasized Merck's multifaceted approach in this aspect, pointing out that "the concept of sustainability goes way beyond just carbon emissions. Importantly, among others it is about ensuring people's access to healthcare."

Apart from reiterating Merck's initiatives such as Fertility Counts and efforts to address thyroid issues for driving equity in healthcare access across diverse demographics, de Muralt also noted the importance of a balance between incentivizing research investment and enabling timely healthcare delivery. "Ensuring a fair reward for innovation is important. But at the same time, ensuring speed of access to patients is another key mission," he said.

Concerning emission reduction, Merck's sustainability efforts encompass internal behavioral changes alongside strategic partnerships to reduce carbon footprints and promote green practices across the pharma supply chain. de Muralt highlighted actions to optimize shipping efficiency by collaborating with other pharma companies and transportation and distributor partners , thereby minimizing energy consumption and space utilization. Additionally, Merck is keen on exploring eco-friendly packaging solutions and encouraging patients to adopt more efficient medical delivery systems to reduce waste. In real-world terms, in 2022, for example, Merck reduced CO_2 impact by 12% and shaved 750 tons of carbon off its distribution footprint in six APAC countries through collaboration with its distribution partners, being equivalent to 840,000 pounds of coal burned.

Furthermore, according to de Muralt, as a family-owned enterprise spanning over three centuries through 13 generations, the Merck family has been upholding their commitment to hand over the company in better shape to future generations, driving Merck's relentless pursuit of eco-friendly practices and zero emissions within a defined timeframe as part of its priorities.

Strengthening APAC Presence with Diversity, Technology and Sustainability

The APAC region spans over 30 countries with massive populations and is incredibly diverse in terms of economies, cultures, biopharma development, as well as genetic characteristics and healthcare needs of the populations. To gain a foothold in this unique market landscape, biopharma companies need to provide products and services geared to the characteristics of different countries in the region. Meanwhile, recognizing the pharma industry's significant contributions to carbon emissions, developing innovative solutions aligned with the net-zero trend and supporting sustainable development are also key to corporate success in the region.

Overall, the interview illustrates how Merck Healthcare is leveraging its versatile portfolio and collaborating with the public and private sectors to address specific health issues in different APAC countries. Also, Merck is actively driving sustainable development and improving healthcare accessibility. This multifaceted, ESG-inspired business strategy helps Merck strengthen its regional footprint and can serve as an inspiring model for biopharma companies seeking to expand their APAC operations.

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THE 10 P'S OF PROJECT MANAGEMENT: A HOLISTIC FRAMEWORK FOR SUCCESS

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Introduction: Project Management is the strategic orchestration of ideas, resources, and people to deliver impactful outcomes. Successful project delivery relies on holistic thinking and structured execution. The **"10 P's of Project Management," a copyrighted model developed by S.N. Panigrahi,** offers a comprehensive framework that integrates the strategic, operational, and behavioral dimensions of project management.

This model spans the entire project lifecycle, from ideation to closure, ensuring clarity, control, and creativity. Applicable across diverse industries and project types, each "P" signifies a critical decision point or managerial action. These interlinked and practical elements are designed to navigate real-world project dynamics, providing clarity, consistency, and control from conception to completion.

The 10 P's model emphasizes key aspects such as **stakeholder engagement**, **financial viability**, **strategic foresight**, and **continuous evaluation**, ensuring that project results align with expectations. It effectively blends logical processes with strong leadership and data-driven direction.

Let's now discuss each of !0 P's with an example of **Adoption of Agile Principles & Practices in Traditional Construction Projects.**

1. Problem & Perception : This is the Project Initiation phase that involves Recognizing Needs and Opportunities.

The **Project Initiation phase** is foundational to project success, centering on the precise recognition of needs and opportunities. It begins with a thorough assessment of the current situation, encompassing the identification of problems, challenges, or opportunities. Crucially, success hinges on understanding the genuine underlying issue and aligning it with **stakeholder perception**. As the adage goes, "**See beyond the noise; solve what truly matters**."

Every project originates from a problem or an opportunity, but it truly sets sail when all stakeholders share a unified perception of it. Misaligned perceptions inevitably lead to **scope ambiguity**, **stakeholder conflicts**, and **resource waste**. Therefore, a project manager's paramount task is to diagnose the core issue, differentiate between symptoms and root causes, and **unify perspectives** through diligent consultation and clear communication. Understanding how stakeholders perceive the problem and their expectations for its resolution is vital for tailoring the project approach and securing buy-in from key players.

Key Activities in This Process: This critical initial phase encompasses several systematic activities:

- **Conducting Needs Assessments:** Utilizing methods such as workshops and surveys to gather comprehensive insights from project managers, site supervisors, and other relevant stakeholders.
- **Understanding Prevailing Issues and Perceptions:** Delving into existing challenges and how they are understood by various parties.
- **Gathering Pertinent Information:** Collecting all relevant data and background information necessary for informed decision-making.
- **Performing Gap Analysis:** Identifying the discrepancies between the current state and the desired future state.
- **Collecting Stakeholder Feedback:** Actively soliciting and integrating feedback from all involved parties to ensure their perspectives are considered.

Examples:

Construction Industry Adaptation: A construction company identifies significant pain points in traditional project management, such as delays, communication breakdowns, and inflexibility in managing changes. Stakeholders, recognizing these inefficiencies, unanimously embrace the need for a more adaptable approach that can swiftly respond to changes, improve performance, and enhance overall efficiency. This unified recognition is key to adopting a successful agile methodology.

2. Purpose & Proposal : In this Stage Project Purpose and Value Propositions are Defined.

Once a problem or opportunity is clearly identified and validated, the next crucial step is to define the project's **purpose** and articulate its scope through a compelling, data-backed **proposal**. As the saying goes, "Purpose ignites passion; proposals turn it into a plan."

Articulating the project's purpose clarifies its overall objective and desired outcomes, providing a clear

direction and motivating the team towards achieving project goals. Simultaneously, a well-defined **project proposal** acts as a robust business case, crucial for securing investment, obtaining approvals, and gaining stakeholder buy-in. It serves as the project's roadmap, outlining its scope, measurable objectives, potential alternatives, and expected benefits.

Key Activities in This Phase: This stage involves a systematic approach to solidifying the project's foundation:

- **Articulating Project Objectives:** Clearly defining what the project aims to achieve in specific, measurable, achievable, relevant, and time-bound (SMART) terms.
- **Aligning Objectives with Strategic Goals:** Ensuring that the project's aims contribute directly to the broader strategic objectives of the organization.
- **Drafting a Formal Project Proposal:** Developing a comprehensive document that details the project's goals, scope, timeline, budget, required resources, and the tangible benefits it is expected to deliver.

Example: Consider a construction company aiming to enhance its project delivery:

The objective is to **implement Agile practices** to significantly enhance project flexibility and efficiency within the construction division. The proposal outlines a phased transition from traditional project management methodologies to Agile in specific, high-impact areas. It meticulously details the anticipated benefits, including **iterative improvements** in project deliverables, **accelerated project completion times**, and notably **heightened stakeholder satisfaction** through continuous feedback loops. This proposal, therefore, includes a comprehensive outline of the objectives, scope, expected benefits, and a high-level plan for integrating Agile methodologies into construction projects.

By meticulously defining the project's purpose and crafting a robust proposal, organizations can ensure that every initiative is not only well-conceived but also strategically aligned and effectively communicated to all stakeholders, setting the stage for successful execution.

3. Practicality & Profitability : Here in this phase, we develop a Business Case, justifying why we want the Project and the Benefits of the Project by Conducting a Feasibility Study and Cost-Benefit Analysis.

Once a project's purpose and proposal are established, the critical next step involves rigorously assessing its **feasibility** and potential **returns**. As the guiding principle states, "**Ideas fly when grounded in reality and guided by ROI.**"

Every innovative concept must pass the rigorous test of practicality and demonstrate its ability to create tangible value. This requires a comprehensive evaluation of its **technical practicality, financial viability, resource availability, and any legal or environmental constraints**. Regardless of how visionary a project may be, it must ultimately generate measurable returns—whether **tangible financial gains** or **strategic organizational benefits**.

Evaluating the project's potential return on investment (ROI) or other quantifiable benefits is essential for assessing its overall viability and ensuring efficient resource allocation. Simultaneously, a thorough assessment of the project's execution feasibility, considering available resources, technical limitations, and potential risks, is crucial for developing a realistic and achievable plan.

Key Activities in This Process: This phase encompasses a series of critical evaluations:

- **Evaluating Financial Viability:** Analyzing the project's potential to generate revenue or cost savings, including detailed financial modeling.
- **Performing Cost-Benefit Analysis:** Systematically comparing the total anticipated costs of a project with its potential benefits to determine if it's a worthwhile investment.
- **Conducting Technical and Business Feasibility Studies:** Assessing whether the project can be realistically implemented with existing technology and capabilities, and if it aligns with market needs and business objectives.
- **Ensuring Practicality and Sustainability:** Verifying that the proposed solutions are workable in the long term and can be maintained effectively.

Example: Consider a construction company exploring the adoption of Agile methodologies:

A detailed **cost-benefit analysis** and **feasibility studies** are conducted to evaluate the financial and practical aspects of Agile implementation. These studies aim to justify that Agile practices can significantly reduce project delays and mitigate risks, ultimately leading to **substantial cost savings**. The feasibility studies confirm that Agile methodologies can be effectively integrated into specific phases of the construction process, provided that appropriate training and tools are implemented. This comprehensive assessment forms the basis for a data-driven decision to proceed, or not proceed, with the project.

By meticulously balancing innovation with a pragmatic assessment of feasibility and value, organizations ensure that projects are not only ambitious but also strategically sound and poised for successful execution and sustained benefit realization.

4. Prioritization & Permission

This involves Prioritization and Alignment, Ensuring Strategic Fit and Commitment that authorizes the project.

With a project's purpose and feasibility established, the next critical steps are **prioritization** and securing the necessary **permission** to proceed. As the principle states, "**Prioritize with vision; proceed with alignment**."

Projects invariably compete for limited resources—be it time, talent, or funds. Therefore, it's essential to prioritize initiatives based on their **impact, urgency, and alignment with overarching strategic goals**. Once priorities are clear, obtaining the requisite **permissions and sanctions**—both internal and external—is paramount before committing resources. This ensures

the project receives the necessary attention and resources, allowing for effective allocation.

Clearly communicating the project's value proposition, potential impact, and anticipated benefits to all stakeholders is vital. This fosters critical buy-in and motivates everyone involved to contribute to its success. Formal approval of the project proposal, leading to the authorization to initiate the project and allocate necessary resources, is the culmination of this phase.

Key Activities in This Phase:

This stage involves strategic decision-making and formal authorization:

- **Strategic Prioritization:** Determining the project's priority within broader organizational objectives, ensuring alignment with strategic goals.
- **Value Proposition Communication:** Clearly articulating the project's benefits and impact to stakeholders to secure their support.
- **Securing Formal Approval:** Obtaining official authorization for the project proposal and the allocation of resources.
- **Resource Commitment:** Formally committing necessary resources following project approval.

Example: Consider the ongoing example of integrating Agile practices:

Prioritization efforts would focus on integrating Agile practices into critical areas, such as project scheduling and communication, where the highest impact is anticipated. A prioritized list of tasks and commitments would be developed for key stakeholders, ensuring focus on these high-value areas.

Subsequently, the project proposal would be presented to senior management for formal **approval**. This approval sets the stage for detailed planning and execution, accompanied by explicit commitments. These commitments might include comprehensive training for key personnel and the piloting of Agile methodologies on a major construction project to demonstrably showcase its value and effectiveness.

By systematically prioritizing projects and securing formal permission, organizations ensure that resources are directed towards initiatives that offer the greatest strategic value, setting a clear path for successful execution.

5. Planning & Projection : This phase is to Create a detailed project plan and forecasting timelines, costs, and resource requirements. **Foresight Prevents Firefights** - "**A clear plan today avoids chaos tomorrow**."

With project prioritization and authorization secured, the next critical phase is **Planning & Projection**. This stage forms the backbone of execution, moving from strategic alignment to detailed operational blueprints. It's about proactive management, not just reactive problem-solving, by thoroughly defining the work and anticipating variability through precise forecasting.

This phase involves the meticulous development of key project components, beginning with **defining scope**. This crucial step translates the approved project proposal into a clear, precise, and unambiguous understanding of what the project will and will not deliver.

Following this, the planning expands to include:

- **Work Breakdown Structures (WBS):** Decomposing the project into manageable tasks and sub-tasks, providing a clear hierarchical view of all deliverables.
- **Timelines:** Establishing realistic schedules with milestones and deadlines to track progress effectively.
- **Budgets:** Allocating financial resources judiciously across all project activities.
- **Resource Schedules:** Planning the allocation and utilization of human resources, equipment, and materials.
- **Risk Mitigation Plans:** Identifying potential risks and developing strategies to minimize their impact.

Key Activities in This Phase:

This systematic planning process ensures comprehensive preparation:

- **Detailed Scope Definition:** Translating the approved project proposal into granular tasks and deliverables, clearly outlining boundaries.
- **Resource Allocation:** Assigning specific resources to each task, considering availability and skill sets.
- **Schedule Development:** Crafting a comprehensive project timeline with dependencies and critical paths.
- **Budget Formulation:** Creating a detailed financial plan that accounts for all anticipated costs.
- **Risk Analysis and Planning:** Identifying, assessing, and developing response strategies for potential project risks.

Example: Continuing with the Agile implementation project:

The planning phase would begin by **defining the scope**, clearly stating that the initial implementation will focus on specific phases of construction projects, such as design and pre-construction, rather than immediate full-scale adoption across all operations.

Following this, a detailed WBS for the Agile transition would be created, breaking it down into distinct sprints for training, pilot project setup, and rollout. Timelines would be established for each sprint, with specific deliverables like "Agile training completion for core team by [Date]" or "Pilot project iteration 1 complete by [Date]."

Budgets would be allocated for training programs, new tools, and additional resources. A resource schedule would define which teams and individuals are involved in each sprint. Critically, **risk mitigation plans** would be developed for potential challenges such as resistance to change, initial dips in productivity, or integration issues with existing systems.

Projections would forecast the anticipated improvements in project efficiency and delivery speed as Agile practices are embedded, providing clear metrics for success.

By meticulously executing the Planning & Projection phase, projects gain a robust roadmap, ensuring proactive management and a significantly higher likelihood of achieving

6. People & Partnership

This involves forming the project team and establishing essential partnerships. Assembling a skilled and motivated project team, fostering collaboration and clear communication channels. Establish strong partnerships with key stakeholders.

Projects are fundamentally delivered by people, not just processes. Therefore, the **People & Partnership** phase is critical, focusing on engaging talent, fostering robust **communication**, and building strong collaborative synergy. As the guiding principle states, "Empowered teams build extraordinary outcomes."

Project success is directly attributable to the effectiveness of both internal teams and external collaborators. This phase involves building the right team structure, clearly assigning roles and responsibilities, and fostering robust partnerships across all stakeholders, including vendors, clients, and regulatory bodies. **Emotional intelligence** and adept **stakeholder management** are paramount to navigate diverse personalities and interests effectively. Crucially, establishing transparent and consistent **communication channels** is vital to ensure everyone is informed, aligned, and working towards shared objectives.

Key Activities in This Phase:

This systematic approach to human capital, collaboration, and information flow ensures a strong foundation:

- **Talent Acquisition and Team Formation:** Selecting team members with the requisite skills, expertise, and a collaborative mindset crucial for project success.
- **Stakeholder Engagement and Management:** Effectively engaging all internal and external stakeholders, ensuring they are informed, aligned, and actively contributing to project objectives.
- **Partnership Development:** Establishing and nurturing strong relationships with external partners, including vendors, suppliers, and consultants, to ensure seamless collaboration and mutual support.
- **Fostering Collaboration:** Cultivating a cohesive and collaborative team environment where diverse perspectives are valued, and synergy is maximized.
- **Strategic Communication:** Implementing clear, consistent, and timely communication strategies across all project channels to maintain transparency, manage expectations, and facilitate decision-making.

Example: For an Agile implementation project within a construction company, this phase would involve:

Forming a dedicated team with diverse expertise, including **project managers** skilled in traditional methods, **site supervisors** with practical construction experience, **Agile coaches** or **Scrum Masters** to guide the transition, and specialized **external consultants** for specific technical insights. Simultaneously, establishing strong partnerships with key stakeholders is vital. This includes collaborating closely with **Agile training providers** to equip the team with necessary skills and engaging **software vendors** to ensure seamless integration of new tools.

Furthermore, fostering a collaborative environment with **cross-functional teams**—including architects, engineers, and contractors—ensures that all perspectives are considered and integrated into the new Agile workflows.

Throughout this, a robust **communication plan** would be in place, outlining regular stand-ups, progress reports, stakeholder meetings, and a centralized platform for information sharing, ensuring everyone is consistently updated on the Agile transition's progress and challenges.

By prioritizing people, cultivating strong partnerships, and ensuring transparent communication, projects can harness collective intelligence and commitment, leading to more resilient execution and extraordinary outcomes.

7. Promotion & Persuasion

This involves, effectively communicating the project's benefits and securing stakeholder buy-in. Develop a robust communication plan, engage stakeholders, and promote the project's value and get buy-in across the board. "**Great projects are sold before they're built**."

Effective project execution hinges on continuous **Promotion & Persuasion**. This phase is dedicated to cultivating internal awareness and external advocacy, ensuring smooth implementation. It involves strategically using influence to align interests, secure ongoing funding, and overcome potential resistance. The project's value proposition must be continually promoted to maintain momentum and support.

Key Activities in This Phase: This systematic approach to communication and influence ensures project visibility and sustained buy-in:

- **Communication Plan Development:** Crafting a detailed communication strategy to systematically inform all stakeholders about project progress, key milestones, and delivered value.
- **Persuasive Communication:** Employing persuasive techniques to address concerns proactively, clarify misconceptions, and generate sustained enthusiasm for the project.
- **Transparency and Trust Building:** Regularly updating stakeholders on the project's achievements, challenges, and any necessary adjustments. This fosters transparency, builds enduring trust, and secures continued support.
- **Advocacy and Support Mobilization:** Actively advocating for the project's inherent value by addressing any stakeholder concerns or resistance. This helps maintain crucial buy-in and ensures the availability of necessary resources and ongoing support for the project's success.
- **Professionalism and Ethical Conduct:** Maintaining the highest standards of professionalism throughout the project life cycle, encompassing transparent communication, ethical practices, and strict adherence to industry standards.

Example: For the Agile implementation, a robust communication strategy is crucial. This involves developing a plan to keep all stakeholders informed about progress and milestones, emphasizing the value

delivered through increased flexibility and efficiency. Regular forums like daily stand-ups and sprint reviews, along with targeted workshops, will ensure continuous feedback, address concerns, and persuade stakeholders to embrace new methodologies, fostering trust and sustained support for successful integration.

By prioritizing proactive communication and strategic persuasion, projects can effectively navigate challenges, maintain stakeholder alignment, and ultimately drive successful execution and adoption.

8. Process & Progression : The **Process & Progression** phase is fundamentally about establishing a project's operational workflows to ensure **robust and effective execution**, leading directly to the final delivery of objectives. This involves meticulously defining how work gets done and implementing systems that drive steady advancement, building upon the project objectives, scope, timelines, budget, and risk planning already in place. As the guiding principle states, "Refine the process, and progress becomes predictable."

This stage focuses on designing and actively implementing efficient processes. It requires selecting the most suitable project management methodology (e.g., Agile, Waterfall), integrating quality standards, and ensuring seamless workflow alignment across all aspects of the project, from scope execution to managing timelines and budgets, and mitigating risks. The emphasis here is on the deliberate construction and application of a framework that facilitates consistent, high-quality delivery towards the ultimate project goals.

Key Activities in This Phase:

- **Methodology Selection & Implementation:** Choosing and actively putting into practice the most effective project management approach to guide and structure execution, ensuring it directly supports the defined project objectives, scope, and final delivery requirements.
- **Workflow Definition & Execution:** Establishing clear, efficient workflows, communication protocols, and decision-making procedures, then actively executing against these defined processes. This ensures tasks are performed consistently and efficiently within established timelines and budget constraints.
- **Integrated Controls for Scope, Time, Budget, and Risk:** Embedding mechanisms directly into the execution processes to continuously monitor and manage project scope, adhere to timelines, control budget utilization, and proactively address identified risks, all contributing to successful final delivery.
- **Quality Assurance Integration:** Building quality standards and best practices directly into the project's execution processes to ensure deliverables consistently meet requirements and expectations, leading to a high-quality final product.

Example: For an Agile implementation in construction, this means adopting and actively rolling out the **Scrum methodology** across specific project phases. This involves defining precise workflows for each sprint, directly linking tasks to elements of the project scope.

Daily stand-ups would be implemented to coordinate immediate tasks and resolve blockers, ensuring progress adheres to timelines. Budget adherence would be managed through sprint-level resource allocation, and identified risks would be addressed within each sprint's planning.

The collective effort and defined processes within each sprint directly contribute to the incremental and ultimately successful **final delivery** of the project's objectives.

9. Performance Evaluation & Product Delivery

This phase is dedicated to active oversight, continuous feedback loops, and implementing controls to ensure consistent improvement throughout the project lifecycle. "What gets measured, gets improved—and delivered right."

It involves rigorously measuring milestone performance against established benchmarks for cost, time, scope, and quality. Utilizing **Key Performance Indicators (KPIs)**, regular audits, and proactive feedback mechanisms are crucial to confirm the project remains on track, identify deviations early, and facilitate timely corrective actions. This continuous vigilance allows for necessary adjustments, ensuring the final output meets expectations and generates the promised value.

Key Activities in This Phase:

- **Performance Monitoring:** Systematically tracking project progress against planned objectives, timelines, and budget, utilizing dashboards and reporting tools for real-time insights.
- **Feedback Loops Establishment:** Implementing formal and informal channels for continuous feedback from all stakeholders, ensuring insights are captured and integrated for improvement.
- **Control Implementation:** Applying necessary controls and corrective actions when deviations from the plan occur. This includes scope adjustments, resource reallocations, or process refinements.
- **Quality Assurance & Audits:** Conducting regular quality checks and audits to ensure deliverables meet defined standards and identify areas for process enhancement.
- **Risk Reassessment:** Continuously monitoring identified risks and assessing new ones, updating mitigation strategies as needed based on project progression and feedback.

Example: For an Agile implementation in construction, this means establishing daily stand-ups and weekly sprint reviews as core monitoring and feedback mechanisms. KPIs like "sprint velocity," "bug fix rate," and "stakeholder satisfaction scores" would be continuously tracked.

If a sprint falls behind schedule (monitoring), immediate team retrospectives would be held to understand the cause and implement process adjustments (controls). Feedback from site supervisors regarding new tool usability (feedback) would lead to quick training adjustments (improvement), ensuring the Agile adoption remains effective and aligned with the project's overall

goals.

10. Project Phase-Out & Presentation

The **Project Phase-Out & Presentation** phase focuses on a graceful closure, emphasizing value demonstration, formal learnings, and ensuring the project's enduring positive impact. As the guiding principle states, "Finish strong; present impact that speaks volumes."

This often-neglected yet critical phase involves more than just administrative closure. It encompasses comprehensive **documentation**, capturing invaluable **lessons learned**, formal **asset handover**, and strategic **capacity building**.

Presenting the project's definitive results and overall impact to stakeholders is crucial to solidify reputation, affirm delivered value, and extract insights that will inform future initiatives. This final stage ensures a seamless transition and sustained support for the project's outcomes.

Key Activities in This Phase:

This systematic approach ensures a comprehensive and impactful project conclusion:

- **Final Project Presentation:** Conducting a formal presentation to stakeholders, showcasing the completed project, its achieved outcomes, and the value delivered. This highlights the project's success and its alignment with initial objectives.
- **Post-Implementation Review & Analysis:** Performing a thorough post-mortem analysis to evaluate project performance against goals, identify what went well, and pinpoint areas for improvement. This directly contributes to organizational learning.
- **Lessons Learned Documentation:** Meticulously documenting all insights, challenges, and successful strategies encountered throughout the project lifecycle. These formalized lessons are crucial for informing and enhancing future project management practices.
- **Asset Handover & Transition Planning:** Ensuring a smooth and complete handover of all project deliverables, assets, and operational responsibilities to the relevant long-term operational teams, establishing clear support structures.
- **Customer Satisfaction Assessment:** Actively gathering feedback from end-users and stakeholders to measure their satisfaction with the delivered product or service, confirming that expectations have been met or exceeded.
- **Post-Implementation Support & Monitoring:** Establishing mechanisms for ongoing support and monitoring the project's long-term impact to ensure its sustained success and address any emergent issues.

Example:

For an Agile implementation project in a construction company, the phase-out would involve a comprehensive **final presentation** to key stakeholders, showcasing the successful adoption of Agile practices and the quantifiable benefits realized (e.g., improved project delivery times, enhanced flexibility).

A dedicated **support team** would be established to assist users with the new Agile tools and processes post-implementation. Critically, a **review meeting** and several **retrospective sessions** would be conducted to formally capture **lessons learned** regarding the Agile transition, identifying best practices for wider adoption and any pitfalls to avoid in future projects. This structured close ensures continuous improvement and cements the reputation of the project's success.

Conclusion: Driving Results Through a Lifecycle Lens

The **"10 P's of Project Management," a copyrighted model developed by S.N. Panigrahi,** provides a comprehensive, lifecycle-based, and integrated approach to project management. It transcends mere timeline and budget oversight, focusing instead on the holistic creation of sustainable value. Each 'P' serves as a critical decision checkpoint, collectively enhancing strategic alignment, operational control, and stakeholder satisfaction throughout the project journey. In today's volatile environment, this model uniquely blends discipline with flexibility, logic with empathy, and vision with realism, making it an invaluable framework for modern project professionals.

Further, regarding "**10 P's of Project Management"** can be viewed at **https://youtu.be/RGa77gU9WDk**

As the adage suggests, "**Projects don't fail at the end—they fail at the beginning and middle.** This model ensures they don't." By meticulously considering and executing each of these ten dimensions, project managers significantly increase the probability of successfully guiding any initiative from its initial inception to a rewarding completion.

This comprehensive framework is particularly relevant for adapting methodologies, such as integrating Agile practices into traditional sectors like construction. While a complete shift to Agile may not always be feasible due to factors like high costs associated with frequent scope changes, a **hybrid approach** proves highly effective.

Agile principles can be strategically employed in the early stages of a project, particularly when the scope is less defined, allowing for iterative development, dynamic stakeholder engagement, and adaptive planning based on real-time data and feedback.

Subsequently, for the remainder of the project where stability and predictability are paramount, traditional Waterfall methods can be leveraged. This synergistic hybrid model harnesses the flexibility of Agile where most needed while maintaining the structured rigor of conventional methodologies, ultimately ensuring overall project success, increased flexibility, improved communication, and higher client satisfaction.

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CHABAHAR AND AFTER. INDIA EYES GLOBAL STAGE FOR PORTS BIZ

ABHISHEK LAW

After Chabahar in Iran and other ports in the subcontinent, Africa beckons the Indian maritime sector

India is eyeing a strategic expansion of its port infrastructure and management capacities on a global scale. Post its fruitful engagement at Chabahar port in Iran, and other ports in its immediate neighbourhood, the country is scouting for opportunities in African nations for port and/or berth operations. According to officials of the Ministry of Ports, Shipping and Waterways, these expansion efforts will be undertaken through Indian Ports Global Ltd (IPGL), a joint venture company formed by Jawaharlal Nehru Port Trust and Kandla Port Trust for the development of port projects overseas.

The shipping ministry has assigned IPGL the task of equipping and operating container/ multi-purpose terminals at Chabahar port and the company is reportedly looking for a project manager to be "stationed in Tehran". Starting with Tanzania, a few African nations have been shortlisted for exploring berth management opportunities.

Tapping Tanzania : Sources said that India and Tanzania have signed multiple memorandums of understanding (MoUs) related to maritime and port infrastructure development, including industrial parks, port operations, and maritime cooperation.

A key agreement is between Jawaharlal Nehru Port Authority (JNPA) and the Tanzania Investment Centre, for establishing an industrial park in Tanzania. Cochin Shipyard Ltd and Marine Services Co Ltd — a Tanzanian company operating ferries, cargo ships and tankers — have signed an MoU for cooperation in the maritime industry.

"Tanzania is definitely on the radar, and with JNPA constructing an industrial park or SEZ in that country, we will look at expanding our scope of operations there," the ministry official, who declined to be named, told businessline.

Tanzania's main ports are in Dar es Salaam, Mtwara, and Tanga, all located on the Indian Ocean. Minor ports include Lindi, Kilwa Masoko, Mafia Island, Bagamoyo, Pangani, and Kwale. Additionally, there are ports on the Zanzibar and Pemba islands, including Chake Chake and Mkoani.

India's largest integrated transport utility, Adani Ports and Special Economic Zone Ltd (APSEZ), currently has a significant presence in Tanzania, especially at Dar es Salaam port, where it manages container terminal No. 2 under a 30-year concession. Adani Ports also has a joint venture — named East Africa Gateway Limited — with AD Ports Group and East Harbour Terminals Limited, which acquired a 95 per cent stake in Tanzania International Container Terminal Services.

The Chabahar push

India, through IPGL, operates the Shahid Beheshti terminal at Chabahar Port, a strategic gateway for trade with Afghanistan and Central Asia, and vital to India's participation in the International North-South Transport Corridor. Container handling at Chabahar is expected to reach 100,000 TEUs (full capacity) by FY26 and plans are afoot for Indian shipping liners to launch operations there.

In FY25, the port's container traffic is expected to reach 75,000 TEUs. By end-January, it had touched 64,245 TEUs, compared with just 9,126 TEUs in FY23, India's shipping ministry data shows. Chabahar port remains in an "investment mode", a source said, with an added focus on marketing activities to ensure operational viability.

"Operations are commercially viable, but it will take some more time to be profitable, as geopolitical turmoil continues," the source added.

A second berth is being planned too.

India is reportedly exploring 4,000-crore capex-led expansion of operations at Chabahar port. With orders for nearly five mobile harbour cranes, India eyes a five-fold capacity expansion to 500,000 TEUs over a 10-year period, shipping ministry officials said, adding that talks were underway.

Neighbourhood plans

Vying with China for a presence at ports in its immediate neighbourhood, India seeks to promote its strategic and commercial interests along trade routes between the Asia-Pacific region, Europe and Africa. In Myanmar, IPGL has assumed control of operations at Sittwe port, which is an integral component of the Kaladan multimodal transit project linking Bangladesh, Thailand, and Kolkata.

The enhanced connectivity through Myanmar is expected to help India establish a seamless trade corridor to Southeast Asia and strengthen regional economic partnerships. In Sri Lanka, the development and operation of Kankesanthurai port by IPGL not only boosts bilateral trade but also revives maritime

passenger connectivity, with a regular ferry service planned between Nagapattinam (India) and Kankesanthurai (Sri Lanka). APSEZ has announced the commencement of operations at the Colombo West International Terminal in Colombo port.

The $800-million, fully automated deepwater terminal can handle 3.2 million TEUs annually, elevating the port's status as a key transshipment hub in South Asia.

Repositioning IPGL

Interestingly, India's shipping ministry plans to propel IPGL into the commercial spotlight. The State-run firm — currently limited to strategic outposts like Chabahar and Sittwe — is likely to be positioned as a domestic terminal operator, too, with high-value oil handling facilities.

At the centre of these plans is Bharat Global Ports, a newly formed State-owned consortium that is being pitched as an "end-to-end port infrastructure solutions provider", including terminal operations, financing, logistics, and connectivity. IPGL will be the operations arm of this entity. "If IPGL gets into domestic berth operations, it will improve the international image of the entity," an official explained, as queries arise as to why a State-backed entity does not have presence in its own country.

Source: www.thehindubusinessline.com

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AI TRANSFORMING FMCG SECTOR, TO LEAD NEXT PHASE OF GROWTH: TATA CONSUMER

VIVEAT SUSAN PINTO

AI is driving the next phase of growth in FMCG, says Tata Consumer at its 62nd AGM. The company is investing in AI-led demand forecasting and pricing, with 41 product launches in FY25. Focus remains on innovation, health trends, and organic growth amid shifting consumer behavior.

Artificial intelligence (AI) is bringing about rapid change in the fast-moving consumer goods (FMCG) sector, pushing companies to increase their digital investments, Tata Consumer's non-executive, non-independent director PB Balaji said on Wednesday.

He was speaking at the company's 62nd annual general meeting (AGM) held virtually on Wednesday. Balaji, 54, was the AGM chair in the absence of Tata Consumer chairman N Chandrasekaran.

Addressing shareholders, Balaji said that companies that embedded AI deeply into their operations would lead the next phase of growth and value creation. "At Tata Consumer, we are leveraging these trends, with a bold strategy, disciplined execution and an ambition to build a future-ready company." Investments in demand forecasting, inventory optimisation and pricing intelligence were being increased as part of the company's broader focus on AI, talent and digital ecosystem to operate with greater speed and precision, he said.

Tata Consumer Products, which was formed five years ago after merging the consumer products business of Tata Chemicals with Tata Global Beverages, closed FY25 with a revenue of Rs 17,618 crore and a net profit of Rs 1,287 crore, a growth of 16% and 6%, respectively, versus last year.

Balaji stressed that the company had no plans to enter dairy, biscuits and edible oils, and the focus remains on the broader food market, where cooking aids, healthier and guilt-free snacking and mini meals were gaining traction as trends.

"With factors such as growing urbanisation, time constraints, consumers are seeking convenience, leading to rising demand for cooking aids, ready-to-drink beverages and snacking," he said.

Balaji said the company, which had maintained its revenue momentum in a challenging environment, had adopted an omni-channel strategy to tap into the divergent trends of premiumisation, health and wellness and convenience. This shift in strategy had come as Gen Z and millennials were expected to contribute to an increasing share of consumption in India, he added.

At a time when global growth was expected to moderate in the near term, India remained one of the fastest-growing large economies in the world, and there were significant shifts in consumer behaviour and business models, Balaji said.

He also said that while the company had significant gun powder from an inorganic perspective, it would focus on organic growth and look at only "bolt-on" acquisitions to fill white spaces in its portfolio.

"In FY25, we had 41 launches, with one launch every nine days in the year," he said, adding that the company was stepping up its focus on innovative products to stay competitive. The innovation to sales ratio for Tata Consumer had crossed 5% for the year, he added.

The AGM began with members observing a minute's silence to pay their respects to the Ahmedabad plane crash victims. Terming it as "one of the darkest days in the Tata Group's history", Balaji said words were no consolation at the moment.

"Our thoughts are with the families and the loved ones of the people who died and were injured in the crash. We are offering support to everyone affected," he said.

Source: www.financialexpress.com

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ECONOMIC UNCERTAINTY DELAYS TRUCKLOAD MARKET BREAKOUT

Spot and rejection rate trend flattens to start the year

ZACH STRICKLAND, FW MARKET EXPERT & MARKET ANALYST

The truckload market remains poised for a breakout, but the timeline appears to be extending. Analyzing the trend line of tender rejections (OTRI) and spot rates excluding fuel (NTIL) over the past two years reveals a clear upward trajectory with increasing volatility. However, this trend flattened in the first five months of the year, as economic uncertainty continues to dampen demand.

The trucking sector is enduring one of its longest and most challenging economic stretches since deregulation. Truckload demand is currently down approximately 30% from its COVID-era peaks. While those peak levels were never sustainable, they lasted long enough to inflate capacity far beyond what the market required.

Slow capacity correction : From June 2020 to October 2022, the number of active truckload operating authorities grew by roughly 48%. Since then, they have declined by only about 12%. Federal Motor Carrier Safety Administration data is slow to reflect these changes, as it can take up to two years to clear inactive authorities unless operators self-report their exit. Carrier Details helps refine this timeline to around a year, but it still lags. Importantly, one authority can represent a single truck or a fleet of a thousand, so this metric isn't evenly distributed.

Tender rejections serve as a reliable proxy for market balance. Carriers are unlikely to reject freight in soft markets unless they have alternatives, so rising rejection rates indicate tightening capacity and strained networks.

Capacity has been in correction mode for years and seemed close to reaching equilibrium late last year. Over the holidays, the OTRI exceeded 10% for the first time since 2021. This occurred even as shippers increasingly turned to intermodal for longer hauls, taking advantage of early inventory pull-forwards that gave them more flexibility in shipping.

The trade war effect : The ongoing trade war has further fueled the inventory pull-forward phenomenon. After briefly cooling in late April and early May, tariff activity resumed, sending mixed signals and triggering repeated shifts in shipping behavior.

Import bookings data shows a surge in container volumes bound for the U.S. last summer, followed by erratic swings. Container imports can be a useful demand proxy, but they often give false signals during periods of uncertainty — something that has plagued shippers since COVID.

Import demand remains relatively high, but much of the freight is precautionary. With trade policy and consumer spending still in question, a significant portion of freight is sitting idle in warehouses rather than moving on trucks.

Economic headwinds : The economy seems to be stalling, if not slowing outright, as business investment weakens. This protracted trade policy uncertainty is unprecedented, leaving businesses without a playbook.

Hiring has slowed, and layoffs are rising. Initial jobless claims have increased since January after declining through the latter half of 2024. While aggregate figures remain historically healthy, the trend is concerning. If the labor market continues to deteriorate, consumer spending could contract further. Combined with persistent inflation and reduced investment, these factors suggest a stagnating economy.

A shift in market balance : The fact that rejection rates have stayed above 6% since International Roadcheck in mid-May — despite underwhelming demand — should be seen as a positive signal for carriers and 3PLs. Demand conditions are actually weaker than in mid-2023, when excess inventory caused order slowdowns and pushed OTRI below 3%.

This suggests a meaningful amount of capacity has exited the market, with more likely to follow as demand remains soft. While the outlook isn't bright for all stakeholders, it does indicate that the imbalance between truck supply and freight demand has narrowed.

Shippers should take note: The market is primed for a sharp reaction if macroeconomic conditions improve. Even if they don't, transportation is likely to become more challenging going forward, even if not dramatically so.

About the Chart of the Week : The FreightWaves Chart of the Week is a chart selection from SONAR that provides an interesting data point to describe the state of the freight markets. A chart is chosen from thousands of potential charts on SONAR to help participants visualize the freight market in real time. Each week a Market Expert will post a chart, along with commentary, live on the front page. After that, the Chart of the Week will be archived on FreightWaves.com for future reference.

SONAR aggregates data from hundreds of sources, presenting the data in charts and maps and providing commentary on what freight market experts want to know about the industry in real time.

Source: www.freightwaves.com

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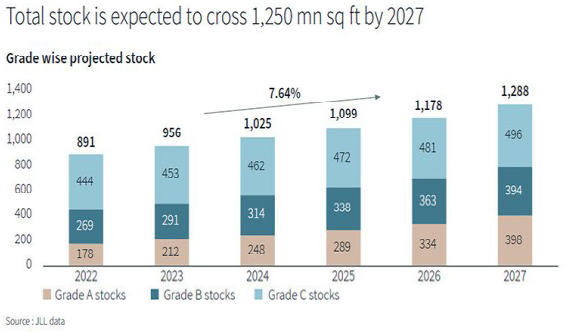
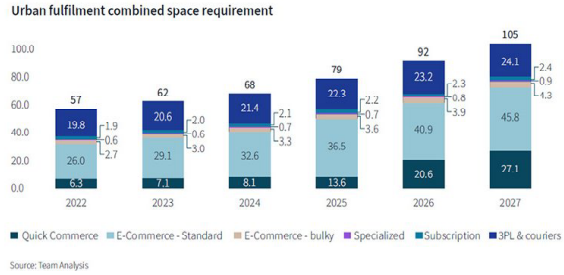
FUTURE OF LOGISTICS: WAREHOUSING MARKET - INDIA MAKE IN INDIA 2.0: CATALYST FOR MANUFACTURING GROWTH

ARITRA DAS
MANAGER, LOGISTICS & INDUSTRIAL

The Indian warehousing sector is on the brink of a remarkable transformation. As supply chains evolve, the demand for warehouse space is projected to reach approximately 1.2 billion sq. ft by 2027 across Grade A, B & C warehouses across all Indian cities. This growth is not just about quantity, but quality as well. The report highlights a significant shift towards Grade A warehousing, with stock expected to grow to an impressive 400 million sq. ft by 2027 from 290 million sq. ft in 2023.

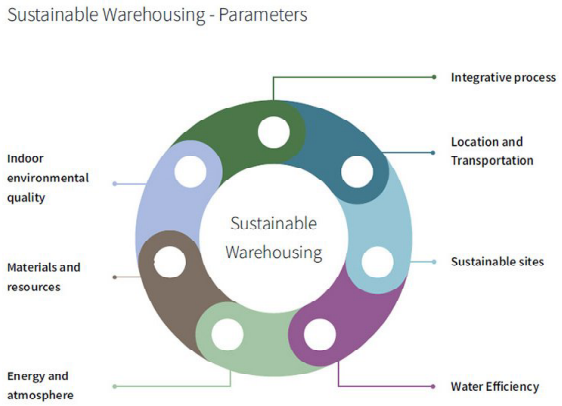


The rise of urban fulfilment centers is another key trend identified in the report. By 2027, the combined space requirement for these centers is estimated to exceed 35 million sq. ft across India, highlighting the growing need for efficient last-mile delivery solutions in urban areas.



The report also sheds light on India's position in the global warehouse automation market. By 2026, India is projected to be among the top 6 users of warehouse automation systems worldwide, with the market expected to reach USD 2 billion annually. This trend towards automation reflects the sector's drive for increased efficiency and competitiveness on the global stage. Government initiatives are playing a crucial role in shaping this transformation. The National Logistics Policy, which aims to reduce logistics costs to 10% of GDP, is creating a more favourable environment for organized and standardized warehouse developments. This policy is expected to streamline operations and attract further investments into the sector.

As the industry evolves, sustainability is becoming an increasingly important factor. Many leading developers are now following ESG norms in their projects, indicating a rise in ESG-certified warehousing projects across India. This shift towards sustainable practices is likely to reshape the sector's future trajectory.



Source: www.jll.com

HOW BIG TRADE DEFICIT DROP AS TARIFFS HIT IMPORTS IS PLAYING OUT INSIDE U.S. SUPPLY CHAIN AND ECONOMY

LORI ANN LAROCCO

KEY POINTS

- The U.S. trade deficit has plunged as imports surged and then plummeted as a result of President Trump's trade war and tariffs.
- The impact of rapid global economic shifts can be seen in the supply chain activity across the U.S., from warehouses to freight orders and inventory.
- The data points to greater pain for small businesses.
- The U.S. trade deficit fell by the largest amount on record in April as imports fell by over 16% after a surge in orders to beat President Trump's tariffs, but there's a worrying flip side for the consumer. As the trade war whipsaws global economic activity, supply chain data shows that the retail inventory crunch could be next and small business across the country are bearing the brunt of the pain. From freight orders to inventory and warehousing, the latest logistics data shows the inability of many importers to make business decisions related to inventory levels.
- One closely watched data point is the widening gap between inventory levels and inventory costs. These metrics generally track together, according to the Logistics Managers' Index. In 2024, the average space between these metrics was 12.1 points. But in May 2025, the gap has expanded to 26.8 points, the third-highest in the history of the index, said Zachary Rogers, associate professor of supply chain management and Colorado State University Supply Chain Management Forum director.
- When inventories are high and quickly expand, warehouses cost more. Traditionally, when warehouse inventories decrease, warehouse costs slow down as well. But because of the front-loading of products ahead of the tariffs in the January-March period, inventory is flat, with replenishment orders not coming in. But costs are still up because the inventory is being held longer.
- "The situation we're in now, inventories are up, and they're sitting there," said Rogers. "Essentially, imports in January, February, and early March looked a lot like what we would normally see in August, September, and early October."
- Normally in mid-October, holiday sales kick into gear, which would move inventory out of the warehouse. But given the uncertainty in tariffs and concerns about the financial health of the consumer, retailers have told CNBC they are not placing full orders.
- "Warehousing capacity is tight, which means there is no inventory movement, and the associated costs (e.g., warehousing prices and inventory costs) are much higher than what we would normally see at this time of the year," Rogers said. "This means the inventory is getting more expensive to hold."
- Ocean freight orders from around the world to the U.S. show the pause button in product orders continues.
- As President Trump and Chinese President Xi Jinping held their first call since a raft of new tariff threats on China in an initial attempt to de-escalate the trade war, data on Chinese ocean freight bookings to the U.S. shows a picture similar to the softness in global orders after the early 2025 surge.
- A recent drop in freight vessel sailings from China drove up the cost for imports as there has been less capacity available on ships. Peter Sand, Xeneta chief shipping analyst, said the recent 88% increase in ocean freight spot rates on the China to U.S. trade route indicates demand of some shippers willing to pay to pull forward their freight during the 90-day tariff pause.
- "However, this will not last because [vessel] capacity is heading back to the Transpacific and the desperation of shippers to get supply chains moving again will ease once boxes are on the water and inventories begin to build up," said Sand. "Spot rates are expected to peak in June before downward pressure returns," he added.
- The conditions in the freight market resulted in an advantage for larger firms over small businesses, according to Rogers. "Smaller firms were boxed out during the big rush of imports in Q1, so they have had to bring inventories over later, resulting in higher costs," he said.
- But since the larger companies aren't continuing to stock up, as the surge ends it is impacting smaller supply chain companies directly, too. The smaller firms in the Logistics Managers' Index survey sample are representative of the "middle mile" in supply

chains, wholesalers and logistics service providers at the points in the supply chain where freight is transported between a supplier's warehouse, distribution center and the final destination of delivery, which could be a retail store or a customer's doorstep.

- They get hit when large manufacturers and retailers avoid inventory as much as possible — unlike the Covid shock era, they are now running leaner inventory overall, which further squeezes the "middle mile."
- "Essentially, it is the small businesses of America that are bearing the brunt of the tariffs right now," Rogers said. "This could change as inventories move downstream to retailers if costs could be passed down to the consumer," he added.
- Recent Federal Reserve survey data shows many firms planning to pass on price increases resulting from tariffs to customers.
- But the ability to pass on price increases to customers varies business to business, and based on end customer. Helen Torkos, president and owner of Regent Tek Industries, which manufactures pavement markings, tells CNBC the global trade war has greatly impacted the cost of importing the raw components needed to manufacture the highest grade of thermoplastic road markings, the product that is on state, city, and local roads and highways.
- "The majority of our components are now being tariffed," said Torkos. "Our cost has gone up tenfold. We cannot pass on these costs to some of our customers because they cannot afford the increases. We also cannot source these products domestically."
- Torkos said the uncertainty of future tariff costs has also led to the cancellation of key projects.
- "The recent removal from several bid processes due to the tariffs causing rising material prices further underscores the impact of these tariffs on our operations," Torkos said.
- Calculating tariff costs amid trade talk swings
- To address the swings in tariffs, and in an effort to offer more certainty on possible freight costs, logistics firms are launching tariff analysis tools. C.H. Robinson and Flexport are among companies to roll out technology that allows businesses and consumers to model tariff impact on price.
- Wine for Europe is one example that can impact both the business and consumer. The EU was threatened by President Trump in a social media post of a 50% tariff, only to have that threat walked back by the president, delaying that increase from June 1 to July 9.
- According to the Flexport Tariff Simulator, if a container with bottles of Chianti from Italy was processed by U.S. Customs on June 2, the wine would be under a 10.24% tariff rate. The duties for one 20-foot container filled with 0.75L bottles of Chianti would be $27,024. If the tariff were increased by another 50%, the tariff bill would soar from $27,024 to $132,624. The tariff rate was based on a wholesale value of $264,000 ($20 a bottle w/13,200 bottles in a container.)
- Then, there is the stacking of multiple tariff layers already implemented during the trade war. These duties have pushed up costs to import retail goods much higher than the 30% associated with the tentative agreement.
- Using an example of a common summer retail purchase, Flexport data shows a 20-foot container storing 60 fully assembled aluminum chaise lounge chairs with a wholesale value of $60,000, departing from China on June 2 and arriving on July 15 would face a 70% tariff — that includes Section 301 tariffs at 25% under the 1974 Trade Act's unfair practices policy; Section 232 tariffs on steel and aluminum at 25%; and the national emergency powers fentanyl tariffs at 20%. The total amount in tariffs for that single container would be $42,000.
- A women's top imported from India faced a tariff rate on June 2 of 42%. After the reciprocal tariff deadline is lifted, the same top will be taxed at 58%.
- But additional variables remain in play.
- "It's not that simple to calculate," said Ryan Petersen, Flexport CEO. "There's still a lot of uncertainty about what's going to happen. For example, it may not be on the tip of everyone's tongue right now, but July 8 is the end of the reciprocal tariffs pause. That could end, and tariffs may not be 10% everywhere. Commerce Secretary [Howard] Lutnick has made comments he is committed to making the tariffs higher."
- Mike Short, president of global forwarding at C.H. Robinson, said for companies to save on tariff costs, they need to have the ability to search their SKUs and identify the product's point of origin so they can tabulate tariff costs.
- "Based on that information, they could then quickly compare their total duty spending versus various alternative sources," said Short. "Knowing the spending scenarios can provide businesses with clarity on where to focus their efforts to achieve savings and diversification, down to the individual product level," he added.

Source: www.cnbc.com

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INDIAN LOGISTICS INDUSTRY ADAPTING TO NEW REALITIES

EUGENE PANFILOV, GENERAL MANAGER OF THE INTRA-CITY DELIVERY SERVICE COMPANY BORZO IN INDIA & BRAZIL

The logistics industry in India -especially the last-mile delivery system—is experiencing significant growth at present raising expectations of an eventful 2024. An India Brand Equity Foundation (IBEF) report says the logistics market will reach an impressive US$ 380 billion by 2025, with a YoY growth rate of 10%-12%. Moreover, the government is looking to bring down the logistics and supply chain costs from 13-14% to 10% of the GDP.

Key players are adopting the latest technologies to enhance customer experience. The logistics sector recognizes the importance of streamlining cargo movement in a fast-paced environment. As a result, companies are keen on integrating new technologies for comprehensive management and strategic planning to be able to cater to the growing demands.

Last-mile drone delivery : The last-mile delivery system is undergoing significant technological transformation in response to such challenges as traffic congestion, customer preferences and regulatory complexities. Alternative delivery methods, such as autonomous robots and drones, backed by advanced tracking systems, can ensure faster, more efficient deliveries. Drones can reach remote areas for delivery, bringing down cost and time. There are many new businesses aggressively working towards exploring this space and overcoming challenges of transportation infrastructure, especially in remote locations with limited road connectivity.

Major food delivery companies such as Zomato, Swiggy, have shown interest in using drones for deliveries. Such e-commerce giants as Amazon and Flipkart are also likely to use drones for last-mile deliveries, while medical supply via drone is also gaining momentum in India's remote and hilly regions, such as Uttarakhand and Meghalaya.

IoT, AI, ML and robotics : Next-generation technologies—IoT, AI, ML and robotics—are making logistics and supply chain more customer-centric and sustainable. Automation of logistics processes results in significant increase in productivity and efficiency in workflow.

IoT is a connection of physical devices monitoring and transferring data via the Internet and without human intervention. In logistics and supply chain operations, integrating IoT technology improves efficiency, transparency and real-time visibility of goods. IoT further enables predictive analytics for logistics companies to anticipate demand fluctuations.

Artificial intelligence (AI) and machine learning (ML) algorithms enable logistics companies to be proactive in dealing with demand fluctuations. AI-enabled forecasting allows managers to plan supply chain processes and reduce inventory waste. Businesses are also leveraging AI to optimize route planning and load consolidation to reduce fuel consumption and carbon emissions to boost sustainability efforts.

Integrating robotics into logistics improves speed and accuracy of logistics processes and reduces human error. Robots improve productivity compared to human workers, although they do not replace humans.

Popularity of D2C brands : Over the past few years, India's D2C market has gained traction because of growing e-commerce penetration; improvement in digital infrastructure; growing millennial population; increase in consumer tech awareness and increasing number of D2C startups with their wide range of offerings. But it was Covid-19 that helped the D2C sector reach a significant milestone.

The D2C model is becoming more popular with established FMCG brands, such as ITC and Hindustan Unilever, facing stiff competition from new D2C businesses. Many companies are turning to this model because it eliminates the middleman. Infact, D2C brands have many options available for last-mile deliveries with various companies like Borzo, Shadowfax, Dunzo, Shiprocket aiding additional help.

Quick commerce – within 60 mins : Even some months ago, especially during the pandemic, customers expected same-day, or two-day deliveries. But online shoppers today have become more tolerant. A recent survey by Radial shows that less than 20% of consumers said 1-2 days was a realistic delivery period for online orders; nearly 38% felt 3-5 days was satisfactory; and for 35% of consumers, one week was reasonable. However, many consumers also want fast shipping. So, delivery speed is still an important buying factor. But the good news for eCommerce is that the intense pressure to deliver at record speed has eased. The challenging news is that retailers should be able to meet any speed, at any time.

MSME and its logistics needs : According to the MSME ministry, the sector plays a key role in India's economic growth, generating nearly 27% of the country's GDP. But logistics challenges for MSMEs are a barrier to efficient operations and growth. Experts say that, since the sector depends heavily on logistics, it was badly hit by the pandemic. One more challenge it faces is adoption of e-commerce solutions. According to experts, because of

the competitive market scenario, companies now prefer to hold inventories closer to their target markets for improved delivery efficiency. So, a logistics company that has a transportation and warehousing network with cost-effective, multi-location pick-up and deliveries, prompt assistance and interventions would be a better choice.

With Lok Sabha elections underway, the logistics industry is likely to come under the lens. With political equations affecting regulations, infrastructure investment and trade policies, the trajectory of the logistics industry is likely to be affected. So, players in this industry will be keeping an eye on the political scenario, which will decide the next changes in economic policies and trade agreements that will form the logistics environment. In this decisive year, India's logistics sector is ready to navigate a unique confluence of challenges and opportunities. So, businesses that can anticipate and embrace the new trends will not only succeed in this changing set-up, but also help India's logistics sector become sustainable and efficient in the coming days.

The views and opinions expressed in this article are those of the author and do not necessarily reflect the views of Indian Transport & Logistics News.

Source: www.itln.in

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FROM STATIC TO STRATEGIC: THE SHIFT TO DYNAMIC PRICING MODELS

Traditional ways to secure pricing have left supply chains exposed to higher costs and increased risk. Aniket Kulkarni, recognized expert in strategic sourcing, negotiations, and risk management, currently serving as strategic sourcing manager at Sysco Corporation.

In today's unpredictable market, cost savings are no longer the only or even the primary goal of procurement. Instead, long-term value creation, supply continuity, and risk mitigation are what set leading organizations apart. Yet many companies still rely on outdated negotiation tactics that focus too narrowly on price. In this article, I outline a modern approach to sourcing negotiations that goes beyond transactional cost-cutting. This strategy blends long-term contracting, dynamic pricing models, and collaborative supplier management to deliver sustainable value in volatile environments.

The problem with traditional tactics : The traditional negotiation playbook in procurement hasn't aged well. We've all seen the script: invite multiple bids, negotiate hard on price, and lock in the lowest cost. In calm markets, that might work. But in recent years, whether due to pandemic-driven shocks, inflationary pressure, or geopolitical disruptions, many supply chains have found themselves exposed.

Relying on the lowest bid doesn't account for volatility in raw material prices, labor shortages, or transportation breakdowns. Nor does it build the kind of supplier relationships needed to weather disruption. The result? Unfulfilled contracts, emergency spot buys, and higher total costs over time.

A dynamic model for a dynamic world : Rather than fixed pricing, dynamic models tied to commodity indices or input costs allow suppliers to stay profitable while giving buyers predictability. It's not about giving up leverage; it's about creating a fair, transparent structure that prevents contract abandonment or surprise surcharges. Monitoring commodity indices and adjusting pricing periodically allows products to stay competitive while protecting margins. Because most commodity indices are publicly available, it becomes easier for procurement teams to justify price changes to the customer. Additionally, clean sheet analysis or should-cost modelling provides individual components weightage and pricing which accelerates validating cost changes

Proactive cost monitoring : Moreover, tracking key input components such as corrugate, labor, steel, HDPE, LDPE etc. regularly enables teams to respond faster to market shifts. This reduces surprises and ensures that contract prices remain market-relevant.

Building your own model : If there isn't an industry-standard dynamic pricing model available, create one. Start with a simple framework—raw materials, packaging, labor, SG&A, and margin—and refine it over time. A well-defined model provides confidence to both sides of the table, paving the way for transparent, long-term partnerships.

Ultimately, it's in both the supplier's and buyer's best interest to agree on a model that is fair, flexible, and data-driven.

Conclusion : In an era where disruption is the norm, procurement leaders must evolve from cost cutters to value architects. Dynamic pricing, backed by transparent models and collaborative supplier partnerships, offers a practical path forward. Those who adapt now will be better positioned to thrive in uncertainty.

Source:SCMR

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OPINION

NAVIGATING THE CHALLENGES OF AI ADOPTION IN PROCUREMENT

JOE GIBSON

Incorporating AI into procurement is a technical endeavor that must consider the human impact to be successful, 4C Associates' director of digital innovation writes. By Joe Gibson, director of digital innovation at commercial and supply chain consultancy 4C Associates.

Recent conversations about artificial intelligence adoption in procurement increasingly focus on its potential to completely revolutionize the function. While this may be true in many cases, the greatest challenge facing procurement teams isn't going to be purely technological — it will also be also cultural.

Integrating AI into the organizational technology stack may seem like the priority, but it's the human element of procurement where the real impact lies. The true success of any AI initiative depends on the readiness of the functional culture to adapt, innovate and learn from new approaches to which AI systems will inevitably give rise.

Integrating AI into procurement culture : The success of any AI implementation is determined by the willingness of people to embrace it. Procurement teams need to actively foster a culture of innovation, where new approaches are encouraged even if they don't yield immediate results.

A real-world example of this challenge was seen in a large U.K. infrastructure organization, which attempted to deploy AI-enabled contract lifecycle management software. The system was designed to read, profile, determine patterns, assess risk, flag commercial variances and store complex subcontract agreements across its supply chain. The expected outcomes included greater visibility, enhanced resilience, reduced risk and improved margins.

Despite the clear potential of the technology, the implementation was derailed by resistance from the legal function. Fears of job displacement ultimately overpowered the potential benefits, leading to the initiative's failure.

Without the buy-in from cross-functional teams and a shared vision of how AI can complement human expertise, such innovations are unlikely to succeed.

The importance of a well-defined use case : A well-defined use case is crucial for AI adoption in procurement. Without a clear understanding of how AI will specifically benefit the function, organizations risk implementing technology that fails to deliver meaningful value. The most successful AI projects are those grounded in real-world challenges.

An oil and gas company experienced this first-hand when it deployed an optical character recognition (OCR) software — an earlier form of machine learning — across its accounts payable function as part of an efficiency initiative. Unfortunately, the project failed due to a lack of clearly defined requirements.

A standard template wasn't utilized, pre-processing wasn't properly implemented, and the company took a 'big-bang' approach across multiple countries and languages without enhanced training for the remaining staff. Instead of increasing efficiency, the project led to an increase in accounts payable staff to manage exceptions, as well as an eight-week supply chain payment backlog.

This example underscores the importance of not only defining the use case, but also ensuring proper planning, training, and execution are in place before deployment. AI should solve specific, well-understood problems to truly add value, and collaboration across teams is key to ensuring it's implemented correctly.

The data paradox: addressing immature data: A significant hurdle in AI adoption is the misconception that AI will instantly solve all procurement challenges. In reality, many procurement functions first grapple with poor-quality data that is unstructured, unclean and poorly governed. Ironically, AI has the potential to enrich and manage such data, but only if organizations first acknowledge the limitations of their current datasets.

Addressing these data issues requires a strategic approach. Standardizing master data fields, limiting the number of staff who can modify supplier data, and harmonizing the intake process are essential first steps. For organizations at the early stages of their journey, introducing a manual gatekeeper to oversee data governance is crucial. As organizations mature, they can automate these governance processes by integrating validation through an application programming interface, or API.

But expectations must be managed accordingly. Rather than expecting AI to provide perfect solutions from day one, procurement teams should focus on improving data quality in tandem with implementation. This ensures that AI solutions have a solid foundation to deliver real value.

Start small and stay agile

Starting small with manageable pilot projects allows teams to demonstrate quick wins, building confidence and momentum for larger-scale AI adoption. By learning from past digitalization efforts, procurement teams can avoid previous pitfalls and chart a more successful course for AI.

Agility also enables organizations to iterate rapidly, refining their AI strategy as they go.

For example, a procurement team might initially deploy AI to optimize supplier selection based on cost and delivery speed. However, as market conditions evolve — such as in today's complex geopolitical landscape — they can quickly adapt the algorithm to prioritize new factors like supplier diversity or sustainability. This ensures that AI remains aligned with broader business goals while being flexible and adaptable to changing procurement needs.

By staying agile, organizations can ensure that AI not only solves immediate problems but continues to evolve in a sustainable way that meets long-term objectives.

Keeping people at the center of AI transformation : AI should be seen as a tool that complements human expertise, rather than replacing it. The procurement stakeholder must remain at the heart of every AI initiative, using the technology to enhance decision-making, not to dictate it.

Striking the balance between AI and human intelligence ensures that procurement teams can leverage the full potential of the technology while still applying the critical thinking and judgment vital to the function that only human beings can provide.

Fundamentally, the future of procurement lies in how effectively AI is integrated into an organization's culture. Procurement leaders must lead this transformation by placing people at the center, promoting collaboration and encouraging agile experimentation. The inevitable adoption of AI is going to be a journey, and its success depends on people and culture as it does on technology. The procurement function that can embrace this balance will be best positioned to thrive in an AI-driven future.

All opinions are the author's own.

Source: www.supplychaindive.com

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MORE WEAVE-HO FOR OUR TEXTILE EXPORTS

Indian textile exporters have a golden opportunity. Tariff and political issues affect China and Bangladesh. India can gain through capacity addition. Government supports expansion via production incentives. New trade agreements will boost exports. The industry needs proactive capacity creation. Policy support is crucial for achieving scale in textiles. Industrial policy must consider slow-moving segments.

Indian textile exporters find themselves in a good place as tariff and political uncertainty affect shipments from China and Bangladesh. The opportunity can be converted to lasting gains through capacity addition. India's textile industry is large by international standards. But its export footprint is relatively small. A reset in the **global textile supply chain** offers India a chance to rebalance domestic and export markets.

Government policy favours expansion on both fronts through production incentives. Besides, a clutch of BTAs **New Delhi** is negotiating are likely to bump up supplies to existing export destinations. The textiles industry doesn't benefit as much as others in a 'China plus one' framework. Extra effort needs to go towards amplifying demand for Indian exports and accompanying supply response.

Textile exports have been a laggard among sectors identified for PLI. There have been calls for expanding coverage to garment exports to make the scheme more effective. This runs against the argument of allowing utilisation to catch up before making major readjustments.

It also sends out mixed signals to other industries selected for export incentives where investment response has been tepid. Yet, policy must be flexible to evolve with external and internal market dynamics. The industry needs to pull in investments going beyond the template of these being relocated away from export rivals.

Unlike consumer electronics, which represent low-hanging fruit of global supply chain resilience, industries such as textiles and steel require a more proactive approach to capacity creation. India's competitive advantage has to be pursued with stronger intent.

The runaway success of mobile handset exports is unlikely to be replicated in short order in textiles. But policy needs to remain supportive to attain scale. By design, production incentives favour high value addition. This has to be weighed against the employment intensity of an industry, where textiles ranks high. Industrial policy must be assessed based on the pace of slow-moving segments.

Source: economictimes.indiatimes.com

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OVERCOMING CHALLENGES TO IMPLEMENTING PREDICTIVE AND PRESCRIPTIVE ANALYTICS IN MANUFACTURING SUPPLY CHAINS

SARA CROSSCORY MCNELEY

Understanding the challenges to establishing predictive and prescriptive analytics is critical to planning implementation strategies.

Data analysis has become essential to maintaining a competitive edge in today's technology-driven environment defined by volatility, complexity, and increasing customer demands. This means reactive strategies for supply chain management are a thing of the past for all business sectors. Predictive and prescriptive analytics are now key to proactively managing risk, optimizing operations, and enhancing resilience. Analytics and the diverse data that supports it have transformed modern manufacturing and will continue to revolutionize the speed and nuance with which supply chains can be managed.

While the benefits of utilizing analytics are clear, the path to adopting these capabilities often meets significant challenges. Organizations need to blend daily operating requirements with compatible technologies and designated capital and are often met with additional hurdles related to legacy data, system complexity, skills, and culture. Understanding the challenges to establishing predictive and prescriptive analytics is critical to planning implementation strategies that allow manufacturers to successfully leverage their data and optimize their supply chain to be future-ready.

Defining predictive and prescriptive analytics

Predictive analytics compiles, integrates, and analyzes diverse data, such as historical, real-time, customer/supplier, and market data, to forecast future trends and understand impacts on supply chain dynamics. Businesses commonly use predictive insights for production planning, inventory optimization, predictive maintenance, resource planning, and risk mitigation.

A range of methodologies supports predictive analytical capabilities, including statistical algorithms, machine learning, and, most recently, AI-driven modeling. Advancements in real-time data modeling have led to the evolution of predictive analytics into enhanced prescriptive analytics: the ability to recommend optimal actions based on predictive insights and specific objectives. Utilizing prescriptive analytics allows manufacturers to proactively manage supply chains, enabling beneficial activities such as fine-tuning manufacturing schedules based on market demand signals and capacity constraints, and dynamically adjusting sourcing based on forecasted supplier disruptions.

By leveraging predictive and prescriptive analytics, organizations can drive breakthrough strategic decision-making and generate forward-looking action plans to enable a more agile, resilient, and customer-focused supply chain.

Implementation challenges and strategies for success

While the benefits of using analytics are obvious, the worthwhile journey to arrive at this data-driven, nimble future state is not without its potholes. Barriers to successfully implementing predictive and prescriptive analytics range in complexity depending on organizational readiness. Understanding the common hurdles related to data, technology, skills, and organizational change is critical for designing an implementation strategy that minimizes risk by incorporating both comprehensive and targeted solutions specific to a company's current state and strategic objectives.

Data integrity and readiness

Perhaps the most obvious challenge to harnessing the power of data analytics is the data itself. Manufacturers often operate in fragmented IT environments with data scattered across ERP, MES, WMS, and supplier systems. Poor data integration, outdated information, and a lack of standardization undermine analytics initiatives, leading to unreliable insights. A data readiness assessment provides an organization with a solid foundation for tackling messy data by reviewing current data assets, identifying gaps, and establishing data governance standards. Once the gaps are identified, data quality initiatives can be prioritized to achieve reliable analytics outcomes.

Technology integration

Together with assessing data quality, organizations must also evaluate their system stacks. Integrating predictive and prescriptive analytics tools with legacy systems often presents technical challenges, and the associated complexity is a common tripping point. Minimizing risk and disruption to supply chain activities

is vital and requires careful planning and execution as part of the implementation strategy. Manufacturers should prioritize the selection of scalable, flexible solutions such as analytics platforms that offer modular deployment and seamless integration with existing systems. These characteristics will ensure strong interoperability and help minimize supply chain disruptions. Robust cloud capabilities and user-friendly interfaces should also stay top of mind for supporting system longevity and enhancing the utility of data insights.

Data literacy

Analytical capability supported by data integrity and an optimized IT environment is a powerful tool in the right capable hands. There is a limited pool of professionals who possess both supply chain domain expertise and analytical skills. Without internal resources capable of translating data outputs into sound business cases and operational improvements, an investment in implementing analytics will fail to realize sustained value. Here, data literacy is either a stumbling block or the key that ignites the engine. A successful implementation plan should include workforce development programs to upskill existing supply chain personnel in data literacy and analytics fundamentals. Building cross-functional teams that blend operations knowledge with data science expertise is critical in a data-driven market where data literacy is the new language of business.

Change management

Adoption of advanced analytics within an organization is an involved undertaking that often encounters resistance. Longstanding reliance on manual processes and intuition can create skepticism toward algorithmic decision making, and concerns over job displacement contribute to cultural barriers. Proactively address opposition and prevent confusion by incorporating comprehensive change management throughout the implementation plan. The effective use of change management improves stakeholder engagement, user adoption, adaptability, and innovation, all enabling supply chain-driven organizations to adjust rapidly. This is especially important when implementing advanced analytics since user adoption (engaging with the new analytic capabilities) is how value is realized.

As part of a wholistic change management strategy, manage expectations with targeted communications and champion the benefits of analytics as a tool for efficient decision-making, not as a replacement for human expertise. Include data literacy education as part of a broader training program to support supply chain personnel in understanding the specifics of the changes that will impact their roles. Effective change management will help smooth the twists and turns of an analytics implementation journey and empower dynamic supply chain transformation.

Bite-sized transformation

Our brief exploration of these four main challenges to establishing predictive and prescriptive analytics for manufacturing illustrates the complexity of these efforts. Manufacturers operating under tight margins may be hesitant to invest in advanced analytics without clear short-term ROI. High initial costs for technology, integration, and training further complicate the investment decision. Address these barriers by breaking it down into bite-sized pieces by selecting targeted pilot projects. Begin with focused, high-impact use cases that demonstrate tangible value. Examples include predictive maintenance in a key production facility or inventory optimization for critical components. Successful pilots can build organizational buy-in, justify broader rollouts, and even free up additional capital to reinvest in broader implementation efforts. First, developing a successful implementation plan considering data, technology, skills, and change management for a limited-scope effort will provide important insights for successfully navigating the complexities of larger efforts. It's important to remember there's not a one-size-fits-all implementation plan, and the intricacy of the effort is dependent on the size and complexity of an organization.

Modern-day necessity of analytics

Adopting predictive and prescriptive analytics has become a strategic imperative essential to the success of modern manufacturing supply chains in a fast-paced, technology-oriented environment. Organizations that effectively harness these capabilities will be better positioned to respond dynamically to market shifts, proactively mitigate operational risks, and deliver superior, more efficient customer service. Manufacturers must move beyond traditional models and embrace a data-driven future to achieve operational excellence and sustainable growth.

By addressing data challenges, building internal capabilities, managing change effectively, and making strategic technology investments, manufacturing organizations can unlock the full potential of predictive and prescriptive analytics and transform their supply chains into competitive advantages. The future supply chain will be defined not just by the physical movement of goods but by the intelligent application of data and insights. Manufacturers that invest in building these capabilities today will outpace everyone else.

Source: www.sdcexec.com

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UNDERSTANDING INDIAN MSME SECTOR: PROGRESS AND CHALLENGES

13th May, 2025 – SIDBI has released a report titled 'Understanding the Indian MSME Sector: Progress, and Challenges'. The report provides comprehensive insights into the rapidly growing MSME sector in India, based on both primary and secondary research. It includes industry, gender, and regional-level analyses, drawn from a primary survey of more than 2,000 MSMEs across 19 industries. The survey offers a deeper understanding of ground-level trends in the MSME sector and highlights the sector's growth, challenges, and opportunities. In particular, the report provides insights into women entrepreneurship and sustainability initiatives, aligning with the Government's focus on these areas. The study also offers an estimate of the credit gap in the MSME sector.

The key findings of the study are mentioned below:

- **Formalization Drive:** The MSME sector, especially micro and small enterprises, has seen significant formalization through Udyam Registration and Udyam Assist Portal, with over 6.2 crore registrations by March 2025 (up from 2.5 crore in March 2024).
- **Access to Credit:** The survey respondents consider timely and adequate credit access as one of their key challenges despite the comprehensive policy initiatives in that regard. While borrowings from informal sources are minimal for small and medium enterprises at 3% and 2% respectively, it is still relatively significant at 12% for micro enterprises.
- **Digital Lending Opportunity:** With 18% of MSMEs using digital lending platforms and 90% accepting digital payments, the sector shows promising digital adoption. This trend, supported by platforms like UPI, can enhance credit access going forward.
- **Credit Gap:** Increased credit supply to MSMEs is in evidence. The study broadly estimates that the sector still has an addressable credit gap of about 24% or 30 lakh crore. The gap is higher in the services sector at 27%; it is estimated to be also higher at 35% for women owned MSMEs, indicating a need for targeted policy actions.
- **Women Entrepreneurship:** Women entrepreneurship has become a significant aspect in the MSME sector with 26.2% in proprietary enterprises being owned by women as per ASUSE 2023-24, signalling growing inclusivity. 76% of the women led MSME respondents have access to credit, but they continue to face higher challenges vis-à-vis their male counterparts with 41% highlighting credit access and high competition as the largest obstacle to their growth.
- **Market Access Challenges**: According to the survey, a majority of the MSMEs have been slow to adopt modern channels to reach customers. Around 70% of the survey respondents continue to use traditional modes of marketing which hinders their scalability and ability to remain competitive. Effective utilization of e-commerce and digital marketing can provide MSMEs with improved access to new markets and customers.
- **Export Potential:** MSMEs increased their merchandise export share from 43.6% (FY23) to 45.7% (FY24). Exporting MSMEs show better tech adoption than non-exporters, but cite supply chain issues, credit access, and competition as major hurdles, though they.
- **Skilled Labour Shortage**: Around a fourth of the surveyed MSMEs cite the lack of skilled manpower as one of their major challenges. Skilled labour shortages are particularly high in defence equipment, readymade garments, hotel sectors, tiles and sanitaryware as reflected in the survey.
- **Infrastructure & Technology Gaps**: Inadequate infrastructure and technology adoption affect productivity and competitiveness; more prominent in sectors like auto components, iron and steel and transport and logistics. A significant proportion of the respondents cited technology adoption as a major obstacle to their growth.
- **Sustainability Efforts**: Over one-third of MSMEs have adopted sustainable practices; 31% use energy-efficient systems, and 21% utilize renewable energy. However, 33% cite limited awareness as a key barrier to further adoption.

Source: tradebrains.in

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WAREHOUSE SUCCESS: SPEED UP, SPEND LESS

KAREN KROLL

When managing today's warehouses, velocity and value are non-negotiable. From predictive AI to flexible robotics, warehouses are cutting costs and accelerating fulfillment without breaking the bank—or the back. Here's how smart strategies and lean tech help companies gain ground by moving faster and spending smarter.

While reining in costs and accelerating warehouse operations are worthy goals at any time, their importance is increasing, driven by an uncertain economy, volatile geopolitical environment, expensive real estate, and a challenging labor market.

"It's all about cost and speed right now," says Ashley Hetrick, principal and sourcing and supply chain segment leader with BDO.

The two goals often support each other. Moving goods in and out of a facility more quickly generally lets a company operate with fewer employees and in a smaller space, cutting both labor and real estate costs.

Many warehouse operators are foregoing capital-intensive solutions for those that incorporate relatively cost-effective tools, such as data analytics and artificial intelligence (AI). These can help companies quickly identify opportunities for improvement, for example by highlighting picking operations that take longer than average, and showing how a different layout could accelerate them.

Artificial intelligence that drives predictive analytics is also moving into the cold storage space, says Brad Hulbert, director with Grant Thornton's business consulting group, specializing in supply chain. It can aid in forecasting demand, which is critical with many of these products, given their limited shelf life.

Also in demand are predictive models that can help in analyzing rapidly changing markets, says Nick Stuart, retail and restaurant consulting leader with RSM US. For instance, wary of ongoing supply chain disruptions, some companies are pulling inventory orders forward. This reduces the risk of stockouts, but also makes inventory volumes more volatile and planning more difficult. Predictive models can help address these challenges.

Robotic automation can offset both labor shortages and higher wages. And as their costs drop, robots are becoming more accessible to middle market companies, Stuart says.

It's also possible to implement robotics in stages. This helps companies space out their investments, and prove the use case before making a huge commitment.

Some warehouses with slightly higher budgets are looking to access even more data and insight with smart sensors, such as RFID tags, Hetrick says. When attached at the point of manufacturing, RFID tags let a warehouse account for products as received once they cross the facility's sensor threshold, streamlining the goods receipt operation. The tags also reduce the risk of miscounting or incorrectly scanning goods, so companies can move inventory more quickly and with a higher degree of accuracy.

Similarly, placing inspection services on site within a food or cold storage facility at a port of entry enables products that require inspection to more quickly enter the U.S. domestic market. And by evaluating their warehouse and distribution networks, companies can identify the locations that balance efficiency with customer service.

The companies highlighted here are leveraging technology and revamping processes to address the challenges their warehouses face. As they do, they're cutting expenses and improving operations, while boosting customer service and labor efficiencies.

SIGNAL BOOST: U.S. CELLULAR DIALS BACK COSTS

Several years ago, U.S. Cellular's network supply chain group was managing one dozen warehouses across the country. Among other responsibilities, this group supports the building and maintenance of the company's wireless network; handles strategic sourcing for building towers, fiber, and general contractors; and oversees the warehouses.

Too often, the group's inventory wasn't located where it was needed most. "We spent a ton of money transferring inventory between warehouses," says Amy Augustine, senior director, network supply chain. Given the size of many of these products, the costs could quickly add up.

U.S. Cellular conducted a network distribution study, which revealed that six warehouses was "the sweet spot," that could support the wireless network on a timely basis, while keeping costs in check, Augustine says.

The team culled and consolidated inventory within the remaining warehouses, recycling older cabling, radios and other products. A new planning and forecasting

team leveraged data from the company's ERP system and mapping tools to assess where it made sense to stock various inventory items.

Another step was to shift from bulk ordering equipment. While this allowed for volume discounts and reduced the risk of stockouts, it often meant that equipment had to be moved from one warehouse to another.

U.S. Cellular worked with its 3PL partner to standardize processes across the warehouses. For example, instead of randomly loading equipment on a pallet, the team "Ikea-ized" it, Augustine says. Parts that will be used quickly go near the top and parts that are needed last, on the bottom. This makes it easier for the general contractors to build the site.

Among other benefits, Augustine and her team chopped about $1 million in warehouse fees within nine months. And in the first year, they also cut about $500,000 from the cost of transferring equipment from one warehouse to another.

The consumer side of U.S. Cellular, which handles mobile phones, tablets, and the like, has also been working to improve warehouse operations. Historically, the company's devices and accessories came through a single fulfillment center. This worked well from a resource and cost effectiveness perspective, and it simplified some planning processes.

The downside was business continuity. When the pandemic hit in 2020, it became clear that an extended shutdown of the lone DC would cause trouble. "We did not have a good plan B," says Robin Sowell, senior manager, logistics operations. In early 2022, the company opened a second facility.

The work wasn't over, however. Initially, orders were assigned to one of the warehouses based on where the products were headed. Often, both DCs had to meet minimum order quantities when purchasing from suppliers, driving up inventory levels. Because neither DC had all the products a store might order, stores would often receive orders from both DCs. This was cumbersome for all involved.

Sowell brought together stakeholders from logistics, planning, and procurement—along with the company's logistics and transportation partners—to brainstorm ideas. Among other conclusions, they found that trying to handle supply and demand for all channels out of both distribution centers complicated the planning process.

The team shifted to planning and fulfilling by sales channel. Bigger orders for the company's stores are handled through the primary DC, while direct-to-consumer orders are handled from the other.

This shift allowed Sowell to move the bulk of inventory to the primary distribution center. Now, instead of six orders per day, stores receive fewer than two, on average. The change also reduced inventory levels, cut transportation spending by 10%, and slashed carton quantity by between 35 and 50%, even as unit volume remained relatively flat or slightly down. Overall space utilized dropped by about 40%.

From a business continuity perspective, U.S. Cellular can utilize the secondary DC to fill corporate-owned stores, if necessary, Sowell adds.

KENCO'S SLOTTING SOLUTION CRACKS THE CODE

Kenco, a third-party logistics provider, manages more than 100 distribution centers across North America. Over the past several years, as the volume of data collected from business intelligence tools grew, Kenco created a data warehouse to ensure a solid layer of data would fuel future innovations, says Satish Vadlamani, director of data science and business intelligence.

The Slot DC solution Kenco developed leverages deep learning to create heat maps that show picking trends, put-away compliance, and zone recommendations for reserve and forward pick areas. It also monitors the movement of stock-keeping units (SKUs) between non-optimal and optimal zones and analyzes how relocating a product to a more optimal position can impact the bottom line.

As Slot DC conducts its analysis, it considers sales data, as well as attributes such as product size and any hazmat restrictions. If a popular product is required to comply with hazmat restrictions, the solution searches for the optimal location within hazmat-approved areas. Slot DC is automated and doesn't require a heavy investment in new equipment, Vadlamani says.

Kenco deployed Slot DC with a puzzle company that lacked both a consistent forward picking area and a consistent method for identifying which SKUs to assign to forward picking. Slot DC identified the changes needed and saved the company nearly $300,000 annually by optimizing its forward picking areas, Vadlamani says.

PORT NOLA: FAST FREEZE, FRESH GAINS

Cold storage has long played an important role in warehousing operations at the Port of New Orleans, says Janine Moreau Mansour, director of trade development. It's critical to the frozen poultry export market, which is the port's second-largest containerized export.

In contrast to many U.S. ports that are working to grow their volume of exports, Port NOLA has targeted maintaining its current export business, while growing its fresh and frozen imports, Moreau Mansour says. The current 90/10 ratio of exports to imports can create equipment challenges for exporters, as they struggle to find empty refrigerated equipment containers.

One step toward this goal is the Port's partnership with Lineage, a temperature-controlled warehousing and integrated transportation solutions provider. Lineage

offers its iHouse—or within the warehouse—inspection capabilities for imported goods at one of its Port NOLA facilities. Food products that require inspection before entering the U.S. market won't have to be transported to another site for inspection and certification.

"Onsite inspection services help get these products to market quickly and efficiently while meeting all regulatory requirements," notes Christopher Britton, vice president, regional sales, with Lineage.

Lineage also offers blast-freezing capabilities, so shippers don't need to invest in their own blast-freezing operation. Having this capability within a warehouse also speeds time to market.

GROCERIES ON THE FLY: CUTTING WAIT TIMES IN HALF

The drive-through pick-up option offered E. Leclerc Seclin, a supermarket in France, has grown in popularity, says Maxence Maurice, the company's CEO. Customers place their orders online and pick them up a few hours later.

As more customers used the service, wait times grew, Maurice says. Because the company lacked the capacity to handle the growing number of orders, management had to place a daily limit on them. In addition, employees traveled long distances to collect and deliver orders, which impacted their productivity and well-being.

"We needed a logistics solution that could handle and alleviate these various challenges," Maurice says. The solution? The Next Generation Skypod robots from Exotec, a provider of warehouse robotics.

Skypods can handle up to 66 pounds within one tote, says Exotec spokesperson Anna Von Schmeling. The totes can transport nearly any type of container between racks and workstations, helping to improve workflows and efficiency.

At E. Leclerc Seclin, the Skypods transport bins filled with items ordered by customers to sorting tables; the items are then moved to bins that correspond to each customer order. Next, these bins are directed to one of three integrated Exotec buffer systems depending on the order's temperature requirements: ambient, fresh, or frozen.

When customers arrive at the drive-through pick-up, they sign in via an external terminal, which triggers the extraction of bins from the storage areas, Maurice says. As customers pull up to a station, the bins are automatically lowered in a continuous flow, ready to be stowed directly in the boot.

With the Skypods, E. Leclerc Seclin can handle up to 1,200 orders daily, a 50% jump from the previous average. Customer wait times have dropped to about five minutes. "With the shorter wait times and greater system reliability, we've seen increased customer loyalty," Maurice notes.

FLEX, FUEL, FULFILL: POWERING A HEALTHY SUPPLY CHAIN

The Quality Group (TQG), which offers protein powders and bars and other nutrition products, handles up to 12 inbound trucks per day at its warehouses. Each year, the warehouses manage fulfillment for more than six million boxes, says Selim Tansug, COO with the Hamburg, Germany-based company.

As order volumes surged, TQG needed to scale operations efficiently while maintaining speed and accuracy. "Robotics became a natural solution to meet these growing demands," Tansug says.

Robots from Locus Robotics currently support TQG's picking, sorting, and internal transport processes. "They help optimize repetitive tasks, reduce physical strain on staff, and ensure a more streamlined material flow throughout the warehouse," Tansug says. The robots helped TQG accelerate picking speed by 25%, improve order accuracy, and reduce labor costs per unit shipped.

Starting with 40 robots that operated within a specific warehouse zone and handled a select number of SKUs, TQG has since ramped up to 125 robots, says Denis Niezgoda, chief commercial officer, international, with Locus Robotics. These are on track to fulfill thousands of orders per day.

"For us, robotics aren't just about automation—they're about enabling agility," Tansug says. "They've been instrumental in enhancing our performance during peak seasons and are a critical part of future-proofing our operations."

Source: www.inboundlogistics.com

WAREHOUSE WAKE-UP CALL: AUTOMATE OR FALL BEHIND

Frontline warehouse workers report rising concerns with injuries on the warehouse floor, and stress about meeting business goals if warehouse leaders don't embrace intelligent automation.

Those are among the findings of Zebra Technologies Corporation's latest warehousing vision study, Elevating Every Move: The Formula for High-Performance Warehousing.

According to the study, 63% of warehouse leaders plan

to implement artificial intelligence (AI) software and augmented reality (AR) within five years. In addition, 64% plan to increase spending on warehouse modernization in the next five years, and 63% have already accelerated their modernization timelines or plan to do so by 2029.

As global warehouse expansion continues and daily order volumes increase, frontline workers share feedback suggesting that warehouse leaders need to move faster to expand workforce capacity:

- **85%** of associates say, "if my employer does not invest in technology to improve warehouse operations, we will not meet business objectives."
- **74%** of associates are concerned they spend too much time on tasks that could be automated.
- **72%** of associates are concerned about safety on the (increasingly busy) warehouse floor, with 70% specifically worried about injuries.
- **69%** of associates report a lack of qualified staff on the warehouse floor and express concerns about fatigue and physical exhaustion.

Even warehouse leaders admit they find it challenging to maintain the fill rates (51%) and prepare orders (47%) outlined in their service level agreements, with order accuracy and outbound processes cited as the top two operational challenges in the Zebra study. Increased ecommerce activity also makes "faster delivery to the end-customer" a top challenge for warehouse teams, even as technology use is on the rise.

Given the disparity between customers' growing expectations and warehouse operators' limited hiring capacity, warehouse associates say it's important that warehouses use collaborative robots, ergonomic mobile devices, communications applications, and task management tools to help solve workplace issues.

The increased availability of automation and mobile technologies would help attract and retain more warehouse associates, agree 93% of associates, while 89% say they feel more valued by their employers when provided with technology tools and automation designed to help them.

Source : Inbound Logistics

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THE LEADERSHIP RETENTION CRISIS IN FLEET OPERATIONS, AND WHY IT MATTERS TO THE SUPPLY CHAIN

JOSH TURLEY- SCB CONTRIBUTOR AND CEO OF RTA

When a fleet manager walks out the door without a succession plan, the fallout is immediate. Preventive maintenance derails, compliance filings are missed, and work orders begin piling up. Vehicles are sidelined, drivers grow frustrated, and delivery times slip. What starts as a vacancy turns quickly into a full-blown operational fire.

Fleet leadership turnover causes instability far beyond the shop floor. Without experienced managers in place, truck availability drops, repairs are delayed, and cost control becomes difficult. Driver and technician shortages are widely recognized challenges, but leadership turnover is often overlooked. Still, it can be just as disruptive to supply chain performance.

What Happens When Fleet Leadership Is Unstable : Losing a fleet manager isn't just an HR issue. These individuals are key to maintaining operational efficiency, cost control, and compliance. Frequent changes at the top create ripple effects throughout the organization.

Disruptions in decision-making. Fleet management is a long game — budget cycles, replacement planning, technology roadmaps. Every time a fleet manager leaves, strategic initiatives are put on hold while a new leader starts from scratch, relearns the operation, and gets buy-in all over again. It's not just savings. Decision paralysis will put the mission in jeopardy.

Compliance risks. New fleet managers often have to catch up on regulatory requirements, DOT filings, emissions mandates, and safety protocols. A missed deadline can result in fines, audits, or even suspended operations, posing a serious risk to fleet performance. A good hire will know these, but won't know where the company is at.

Impact on vendor relationships. Strong supplier agreements and pricing structures depend on consistent leadership. When management shifts frequently, relationships with vendors and service providers become unstable, leading to potential renegotiation delays, lost bulk pricing, and inconsistent service levels.

Tech and driver retention suffer. Drivers notice when leadership disappears. They start questioning decisions,

schedules get sloppy, and before long, you're bleeding out through increased turnover and rising recruitment costs.

Rising costs. Fleet managers oversee budgeting, cost controls, and maintenance expenses. Without a steady hand guiding these financial decisions, costs can spiral out of control, impacting overall profitability and financial forecasting. Margins are tight enough without this.

Many Fleet Leaders Aren't Set Up for Success : Here's the uncomfortable truth: Most new fleet leaders don't get trained to lead. They're former techs, dispatchers, or shop foremen who got promoted because they were great at their last job. But leadership? That's a whole different skill set.

They step into roles requiring HR finesse, budgeting expertise, conflict resolution, and regulatory knowledge, often with zero formal training or support. Is it any surprise that burnout happens fast?

We've seen it firsthand. New managers thrown into the deep end, expected to manage seven-figure budgets, lead a team of 20+, and navigate DOT compliance. On day one. And when they struggle? They're replaced with the next person in line, starting the cycle all over again. Unlike other areas of the supply chain, fleet management lacks a structured leadership development pipeline. Many fleet professionals report feeling isolated in their roles — caught between executive expectations and operational realities, with little formal support or mentorship. Without clear training programs and career development resources, many new managers struggle to adapt, leading to frustration, burnout, failure and high turnover.

Improving Leadership Retention and Stability: Building a strong leadership pipeline requires an intentional approach. Here are key steps organizations can take to support and retain fleet leaders.

Treat fleet leadership as a strategic role. Promoting from within can be effective, but technical expertise alone isn't enough. Stop thinking of the fleet as just a cost center. The best organizations recognize the fleet as a critical part of their value chain.

Pair new fleet managers with experienced mentors. Fleet leaders benefit from hands-on guidance from seasoned managers who have faced similar challenges. A formal mentorship program can help new managers navigate budgeting, compliance, and employee management with confidence.

Invest in formal management training. Leadership development should be a standard component of fleet management training. Leadership workshops, financial literacy programs, and compliance courses can provide the skills new managers need to succeed.

Encourage engagement with industry associations. Organizations like TIA, TMC, MCE and ACT offer valuable networking opportunities and leadership resources. Leadership can be a lonely road—give your managers a chance to learn, vent, and grow alongside others walking the same path. Encouraging fleet managers to participate in these groups can help them stay informed and connected to best practices.

Focus on retention by reducing burnout. Fleet leaders are wearing 14 hats at once, from maintenance scheduling to vendor negotiations to team leadership. Spreading responsibilities across a team and providing administrative support can prevent burnout and improve retention.

Stable leadership strengthens the supply chain overall. Fleet managers who have the training and time to focus on preventive maintenance and asset management keep vehicles on the road longer and reduce unplanned expenses. They also maintain consistent supplier agreements, ensuring fuel, parts and services remain reliable and cost-effective.

Driver satisfaction improves under strong leadership. Communication, schedules, and working conditions are more consistent, which lowers turnover and recruitment costs. Compliance and safety outcomes also improve. A well-supported manager ensures that regulatory requirements are met, and safety protocols are followed, reducing liability and promoting a culture of accountability.

The fleet industry often focuses on retaining drivers and technicians, but overlooking leadership turnover is a costly mistake. Without strong managers, even well-maintained trucks won't deliver results.

Companies that invest in leadership development, mentorship, and training will see better retention, improved operational outcomes, and stronger supply chain performance. The time to build a leadership culture is now — before your next fleet manager walks away and your supply chain pays the price.

Source: www.supplychainbrain.com

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WTO UPDATE

TIMOR-LESTE KICKS OFF NEGOTIATIONS TO JOIN GOVERNMENT PROCUREMENT AGREEMENT

At a meeting on 18 June of the Committee on Government Procurement, parties to the Government Procurement Agreement 2012 (GPA 2012) welcomed steps taken by Timor-Leste to kick-start negotiations to join the Agreement. Timor-Leste, which joined the WTO less than a year ago, is the first least developed country to officially launch the accession process to join the GPA 2012.

Ambassador Antonio Da Conceicao of Timor-Leste stated to the Committee: "Joining the Government Procurement Agreement is part of a broader national strategy to strengthen good governance, align with international standards and support our successful integration into the global economy. "

Timor-Leste as part of its accession to the WTO committed to submitting an initial market access offer in its GPA accession negotiation in August of this year. The Committee also discussed the well-advanced accession negotiations of Albania and Costa Rica. Both members submitted their "final" market access offers earlier this year and will continue to engage with GPA parties, with a view to finalizing their accession processes as soon as possible. China's accession negotiation was also discussed.

The Committee also welcomed Guatemala as its 37th observer.

e-GPA Notification System launched : The Committee noted that the e-GPA Notification System, launched on 16 June, marks a milestone in the digital transformation of Committee work. It will facilitate GPA parties' compliance with their transparency obligations under the Agreement.

The system enables the online submission of notifications required under the GPA 2012 (e.g. on government procurement statistics, procurement thresholds in national currencies, national implementing legislation, etc.) and related communications by GPA parties to the Committee.

Background : The GPA 2012 is a plurilateral agreement that aims to open government procurement markets among its parties on a reciprocal basis and to the extent agreed between GPA parties. It also aims to make government procurement more transparent and to promote good governance. The Agreement currently has 22 parties, covering 49 WTO members, including the European Union and its 27 member states (counted as one party). While open to all WTO members, it is binding only for those members that have acceded to it. The list of current GPA parties can be found here.

Reciprocal market opening assists GPA parties in purchasing goods and services that offer the best value for money. The Agreement provides legal guarantees of non-discrimination for the goods, services and suppliers of GPA parties in covered procurement activities, which are worth an estimated USD 1.7 trillion annually. Government procurement typically accounts for about 15 per cent of developed and developing economies' GDP.

WTO members review six regional trade agreements, discuss transparency issues

At a meeting of the Committee on Regional Trade Agreements (RTAs) on 17 June, WTO members reviewed six regional trade agreements involving the Association of Southeast Asian Nations (ASEAN), the European Union, New Zealand, the United Kingdom, the Pacific States (Papua New Guinea, Fiji, Samoa and the Solomon Islands), Cameroon, Morocco, Türkiye and Kosovo. They also reviewed other topics relevant to the Committee's work under the Transparency Mechanism for RTAs.

The Committee considered the following Agreements:

- ASEAN Framework Agreement on Services (AFAS)
- Free Trade Agreement (FTA) between the European Union and New Zealand (Goods and Services)
- Interim Economic Partnership Agreement (EPA) between the United Kingdom and the Pacific States (Goods)
- Economic Partnership Agreement between the United Kingdom and Cameroon (Goods)
- Agreement establishing an Association between the United Kingdom and Morocco (Goods)
- Free Trade Agreement between Türkiye and Kosovo (Goods)

The Chair of the Committee, Ambassador José Valencia of Ecuador, noted that 61 RTAs in force have still not been notified to the WTO up to 2 June 2025 — up from 58 RTAs on the previous list.

The Chair outlined the informal consultations he recently held with members on the issues of non-notified RTAs, factual presentations, and possible inputs for the 14th WTO Ministerial Conference to be held in Yaoundé, Cameroon, on 26-29 March 2026.

Ambassador Valencia shared a report summarizing members' views, with background context provided primarily by the Secretariat, and his own suggestions for action. The report was presented under the Chair's own responsibility and without prejudice to members' views. Further informal consultations are planned after the summer to facilitate deeper discussions on the report's content and future actions.

Under other business, Brazil sought clarification on the trade deal recently announced by the United States and the United Kingdom. The US and the UK said they would relay the questions to capitals and revert back.

Next meeting

The next Committee meeting is scheduled for 10 November.

Source: WTO Website

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HOW AI CAN HELP TAME WAREHOUSE COMPLEXITY

STEVE ROSS

Growing Complexity : The complexity of running the warehouse only continues to increase. Supply chain leaders face macro-challenges such as the pressure for sustainability, labor shortages and the effects of inflation on operating margins.

Layer on the daily micro disruptions that every warehouse experiences regardless of size – unexpected or delayed deliveries, inventory shortages, quality issues and scheduled labor or equipment mismatches versus real-time needs—and suddenly running the warehouse becomes unmanageable.

Backwards Solutions : Logisticians and warehouse operators have worked to rise to the challenge; however, there is only so much complexity that a warehouse team can effectively manage using many of today's siloed, rules- and history-based warehouse management solutions. Too often, the challenge is met by throwing added resources at problems to close the gap. And unfortunately, those resources may not actually add much value.

For example, slotting and picking usually consume more than half of warehouse labor costs. Studies estimate that a typical warehouse picker spends over 50% of their shift just in travel time winding their way across the warehouse to or from a product pick. Warehouses also struggle with being over or understaffed and rarely strike the balance of what is "just right" for the day's staffing needs.

This is because the data that the warehouse is working on includes historical receipts, demand, picks and shipments. When it does look into the future, it too often uses a forecast or plan that can be weeks, if not months, out of date.

AI Helps Close the Complexity Gap : Acknowledging that warehouse complexity is not going away, what can be done?

We envision AI and Machine Learning as the path to close the complexity gap and move the warehouse to the next level of efficiency and effectiveness.

AI and Machine Learning can take signals from historical data, blend them with real-time updates, future forecasts, predictive learning models and even include signals from other connected solutions. Together, these signals provide the warehouse team with recommendations that can optimize activity across the warehouse for today and into the future.

AI and Machine Learning can be the partner that the warehouse team has been looking for to simplify their complexity. We can already see ways that this can transform warehouse operations.

Agentic AI : Every warehouse team has that one person who understands the warehouse and brings an unrivaled depth of experience that helps the warehouse run. Now, take that knowledge and expertise and imagine it on an interactive device and in your team's hands 24/7/365.

Agentic AI can incorporate all those signals and provide recommendations in real-time to your warehouse team on the most effective use of their time. What trailer needs to be worked next and why? What is the best use of your slotting team's time to reduce pick travel time and improve efficiency?

All while providing your entire team with clear, understandable explanations of why the recommendation was made and how it can help your team and operations.

AI in the Yard : AI and Machine Learning can help to reduce complexity in the warehouse yard. Today, trailers are often prioritized for unloading mainly to support facility service levels and to avoid detention charges.

With AI and Machine Learning, Warehouse Management can utilize real-time signals to "see" the contents of each trailer, the status of pending orders against those contents and their priority against every other trailer in the yard.

AI and Machine Learning can provide real-time recommendations based on available scheduled resources, select the highest priority trailers to be worked next and anticipate the best dock door to most efficiently slot the product or cross dock for immediate shipment. All to reduce complexity in the yard and the receiving dock.

AI Within the Facility : Slotting and picking are among the most labor-intensive activities within the facility. Most slotting decisions are made literally in the moment based on available slots. The results are products distributed across the warehouse based on thousands of disconnected slotting decisions.

With the introduction of AI and Machine Learning to the process, warehouse management can analyze each individual slotting decision, including signals such as history, volume estimates, pick affinity, optimal task and travel time, as well as available locations. Then, balance them against configured guardrails such as efficiency

and movement costs to determine slotting locations that continuously optimize the warehouse for tomorrow's needs, instead of just today's availability.

The result is reduced complexity, which decreases pick travel time and increases pick efficiency since the slotting decisions have been continuously optimized over time to place products for faster picking.

AI and Resource Management : Accurately forecasting and then managing warehouse resources in real-time is a significant part of a warehouse leader's work.

In today's warehouse, resource forecasts are typically based on a combination of historical data and demand forecasts that usually do not accurately reflect what is needed in real-time. So, resource forecasting too often results in the warehouse being chronically over or understaffed.

When forecasting resources with AI and ML, solutions can incorporate historical data but also the latest real-time forecasted data to more accurately project resource needs days or months in advance, improving staffing and scheduling at a much more granular level.

But even the most intelligent resource forecast needs to be adjusted when today's emergency intrudes. With AI-powered visibility, the warehouse management solution can ingest all these various signals, see the priority of workflows across the entire building and then shift available resources in real time from lower-priority work to mitigate today's emergency.

The warehouse management solution is continuously updated and can re-prioritize tasks in real time, ensuring that all work across the facility stays on track and reducing the complex firefighting work that warehouses complete daily.

All these recommendations can be reviewed and approved by the warehouse team based on clear and understandable explanations from the solution's AI.

Conclusion : All of this sounds like science fiction. But it is all very real. Software providers are seeing more logistics and supply chain clients that need and inquire about AI and Machine Learning capabilities as part of their warehouse management or other solution sets.

To address the growing complexity and macro- and micro-disruptions, the warehouse team needs a trusted partner that can learn, improve and understand their facility and its capabilities.

A trusted partner that can help to reduce complexity and keep the facility working efficiently, not just today but every day. AI and Machine Learning is ready to be that partner.

Steve Ross is part of Blue Yonder's Solution and Industry Marketing team focusing on Supply Chain Execution.

Source: logisticsviewpoints.com

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MAGNET CRUNCH: INDIAN FIRMS PITCH SUPPLY CHAIN PLANS TO CURB CHINA'S RARE EARTH DOMINANCE

Synopsis : Indian companies are stepping up to establish domestic rare earth magnet supply chains due to China's export restrictions. Midwest Advanced Materials, Entellus Industries, and IREL have presented plans to the government, aiming to reduce reliance on Chinese imports. The government is considering incentives to support local production, addressing concerns from the auto industry about supply timelines.

Facing a severe supply crunch of rare earth magnets after export restrictions imposed by China, several companies, including homegrown advanced material entities, have approached the Indian government with proposals to build in-house magnet supply chains, ToI reported.

These companies have made presentations to the government, including the Ministry of Heavy Industries, assuring that they will build supplies within India to reduce dependence on China. "The companies include Midwest Advanced Materials, Entellus Industries, and public sector Indian Rare Earths (IREL)," sources told The Times of India (ToI).

The sources added that Heavy Industries Secretary Kamran Rizvi has also taken presentations from companies as the government begins planning strategies for building indigenous capabilities in magnet production.

"Midwest Advanced Materials made a presentation about their plans to produce rare earth magnets in India with a capacity of 500 tonnes per annum. They forecast that by end of 2026, they will be able to produce custom-made rare earth magnets for the industry," one of the sources said.

Entellus, a UK-headquartered company with major operations in India, also made a presentation, detailing their plans to produce rare earth magnets. "They have told officials that their plant is ready to produce the magnetic powder but will still take some time to produce industry-grade magnets," the source said.

IREL, among the last to make its presentation, informed the government that it would be able to match China's pricing once production begins. "However, the company said that ore present in Indian geography is 100 times less than in China, the US, and Australia," the source added.

Companies also informed the government that magnet production in India had been shut down over the past two decades due to a flood of cheaper Chinese imports. "The industry members requested government to support companies in setting up magnet production by providing incentives and monetary benefits," the source said. Secretary Rizvi, however, urged the companies to make "realistic statements about magnet production", warning that inaccurate claims could hurt potential customers in the auto sector.

The auto industry has also asked the new local producers to commit to clear timelines on supply, pointing out that their production lines rely heavily on quick procurement.

Rare earth magnets are critical for permanent magnet synchronous motors (PMSMs), which are widely used in electric vehicles for their compact size, high torque, and energy efficiency. Hybrid vehicles also depend on these magnets for efficient propulsion.

Over the past few months, the situation for the Indian auto industry has worsened. No Indian auto component or vehicle company has received approval from the Chinese government to procure rare earth magnets. According to sources, there is "no clarity as yet" on any timeline for a confirmed meeting with Chinese government representatives, despite efforts by Indian officials.

The applications for sourcing magnets have been filed mainly by component makers who manufacture high-tech, fully built assemblies such as speedometers, electric motors, e-axles, electric water pumps, automatic transmission kits, speakers, sensors, and ignition coils.

The push for a meeting with Chinese authorities is being driven not just by industry bodies like the Auto Component Manufacturers Association and the Society of Indian Automobile Manufacturers, but is also being facilitated by ministry officials.

Last week, ToI reported that no Indian auto component or vehicle manufacturer had received approval from China to source rare earth magnets. The paper cited sources who reiterated "no clarity as yet" on when a meeting might be held.

The companies that have applied for magnet sourcing include Uno Minda, Bosch, Mareli, TVS Group, Motherson Sumi, and Sona Comstar.

"There were no approvals so far, according to the latest assessment we carried through interactions with industry representatives," one source told ToI. "The situation is grave, and there is now massive uncertainty regarding manufacturing schedules and factory output."

China's restrictions were formally issued through a notification dated April 4 this year. The new rules apply to medium and heavy rare earth metals, their alloys, magnets, and related products. Exporters are now required to obtain a licence under the country's export permit system.

To avoid misuse in defence and weapons manufacturing, the Chinese authorities now require an End User Certificate (EUC). This certificate must first be approved by India's Directorate General of Foreign Trade (DGFT) and the Ministry of External Affairs. It must then be endorsed by the Chinese Embassy in India before a licence can be issued.

Separately, Economic Times reported on June 20 that India has finalised a 3,500–5,000 crore scheme to incentivise the production of rare earth minerals and derived magnets in the country. The scheme is expected to be approved in a fortnight, a senior government official told the publication. "The priority is to start domestic-critical mineral production in the shortest time period," the official said.

The sops under the proposed scheme will be granted through a reverse auction process, the official said. The decision to offer these incentives comes after an internal ministerial review raised concern over India's dependence on Chinese imports for critical materials.

Source: The Economic Times, 23 June 2025

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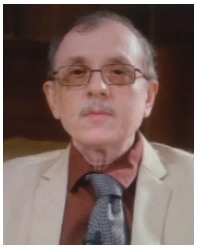

NEGOTIATION PROCESS FOR SOME CRITICAL ITEMS IN SCM OF EPC INDUSTRY.

BANI PRASAD CHAKRABORTY, SCM-HEAD (TUAMAN ENGG LTD), banipr43@gmail.com

While negotiating any item we should follow the procedure based on the value analysis considering nature of the item and its use. We should not negotiate the value of the item just on the price of 3 /4 vendors and budget specially for Engineering and construction items. Negotiation process has to be technically and commercially viable. Following are the procedure of some of the items which involves considerable cost at any project.

Value Analysis for Bulk Steel and Negotiation:

1. Rate of manufacturer like SAIL/JINDAL/RINL/ ARCILEOR MITTAL/SRMB/CONCAST/MAHAMAYA/ BHUSAN STEEL etc based on the approved vendor list.
2. Existing Price of Raw materials like carbon, copper , Zinc used for the particular Bulk items comparing with last price of same Raw materials in the market.
3. Last purchase Rate from the record of organization.
4. Transportation Cost
5. Delivery period.
6. Payment Terms. (Revolving L/C with large credit period for large volume is better than other option considering fund availability during that period.)
7. For long lead Bulk materials Big Traders can be considered based on the calculation of not only price and credit terms but also production loss(input can be found from Planning/ Project) for non availability of materials for that period.
8. Cost sheet in Excel based on all the above should be prepared and compared with budget finally before finalization of order for bulk steel items.

Value Analysis for Bulk Pipes and negotiation:

1. Category of Pipes (Carbon Steel, Mild Steel, ERW, GP,GI, Seamless, Alloy steel etc) , Specification of materials (IS, BS, ASTM, SA etc) to be identified and separated first.
2. Price of existing Raw Materials for manufacturing of Pipes compared with last price of the market.
3. Last Purchase Rate in the organization for each size.
4. Against Each size item , Size of bulk quantity to be considered first from the quoted price.
5. Weight (KG) per meter to be calculated from the existing formula or available chart.
6. Derive Cost per Kg against that particular item of bulk quantity.
7. Considering that cost, derive the rate of other sizes.
8. This should be our basic rates
9. Now find out LPR (Last Purchase Rate) from the record of the organization and Budget.
10. Comparing Last Purchase Rate and Rate found out through sl no 5,6 and 7 above, Proposed rate to be decided. This may be higher or lower sometimes from earlier rate based on the current rate of raw materials.
11. Interest for the credit period and delivery requirement also to be considered before finalization of order on a particular Vendor.

All the above exercises can be done through Excel as a single cost sheet and should be prepared before negotiation and finalization of order for bulk items

Value Analysis for Bulk Pipe Fittings and Negotiation:

1. Category of Pipe Fittings (CS, MS, Alloy steel etc) , Specification of materials (IS, BS, ASTM, SA etc) to be identified and separated first.
2. Price of existing Raw Materials for manufacturing of Pipe Fittings.
3. Last Purchase Rate for each size of Fittings
4. Against each size item, item of bulk quantity to be considered first from the quoted price.
5. Weight (KG) to be found out for each size from the vendor or available chart.
6. Derive Cost per Kg against that particular item of bulk quantity.
7. Considering that cost, derive the rate of other sizes.
8. This should be our basic rates
9. Now find out LPR (Last Purchase Rate) and Budget from the record of the organization.
10. Comparing Last Purchase Rate and Rate found out through sl no 5, 6 and 7 above, Proposed rate to be decided. This may be higher or lower sometimes from earlier rate based on the current rate of raw materials.
11. Interest for the credit period and delivery requirement also to be considered before finalization of order on a particular Vendor.

All the above exercises can be done through Excel as a single cost sheet and should be prepared before negotiation and finalization of order for bulk items of

Pipe Fittings.

Value Analysis for Electrical Panel and Negotiation:

Factors which is to be considered for cost analysis:
Panel size based on the Power Rating and no of circuits
Type of Circuit Breakers (MCB, RCCB) brand
No of Meters.
No of Control relays.
Fabrication materials cost
Labor cost
Overhead expense.

Considering above points in mind we should evaluate the cost.

1. Basic Panel Structure: Sheet metal enclosure, door, hinges, locking mechanism, internal busbars.
2. Circuit Breakers: Main circuit breaker (MCB or MCCB) and individual circuit breakers(MCBs, RCCBs) depending on current rating and circuit quantity.
3. Metering Devices: Voltage and current meters if required.
4. Control relays: For motor control or other automation functions.
5. Wiring and cable connections: Internal wiring between components.
6. Accessories: Terminal blocks, labels, mounting brackets, earthing components.

Variable factor for Panel cost:

1. Panel size and complexity: Larger panels with higher ampere and complex wiring will be more expensive.
2. Circuit complexity due to additional wiring and configuration. Special enclosure, dedicated control circuits and specific functions will add more cost.
3. Skilled labour for customization: Skilled labor for panel assembly and wiring will impact on cost.
4. Installation and site conditions: Installation costs vary based on site accessibility and required wiring.

Final Analysis: (Thumb rule)

Breakdown of components: Detail list of components with individual prices based on the record of the organization.

Materials cost calculation: Total cost based on quantity and unit price. Generally 60% of total cost.

Labor cost estimation: Labor hours for panel assembly, wiring and testing. 20% of total cost.

Overhead cost: Additional cost for other overhead, transportation of final product and profit margin. 20 % of total cost.

It is suggested firstly to read the BOM from the drawings and study the components and check the market price of individual components as far as possible.

Secondly, one excel format is to be made where other previous orders technical data based on existing spec are available to compare.

Thirdly, During Commercial negotiation we should obtain the following from the vendors:

What are the items involved in the Panels?

What percentage they have considered for materials cost, Labour cost and Other overhead with profit margin?

No of Feeders to be obtained from the drawings and offer of the vendor so that based on the load calculation variation of feeders can be accommodated in the price variation for future if any.

Generally as per market statistics Rs 5000 to Rs 6000 is considered for each additional feeders.

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HOW AI & ANALYTICS ARE TRANSFORMING SUPPLY CHAIN RESILIENCE

TOM CHAPMAN

Martin Tombs, Field CTO for the EMEA region at Qlik, says the ability to anticipate disruptions has become a defining factor in organisational success

In an era defined by volatility and unprecedented challenges, supply chains face mounting pressures from all directions.

The ability to anticipate and mitigate disruptions has become a defining factor in organisational success.

"Supply chains are more critical — and vulnerable — than ever," asserts Martin Tombs, Field CTO for the EMEA region at Qlik. "From raw material shortages to geopolitical instability, shifting consumer demands and even natural disasters, disruptions can derail operations and damage trust."

Yet amidst these challenges lie significant opportunities to revolutionise supply chain management through advanced technologies, as Martin explains: "The solution lies in using AI and predictive analytics to more intelligently manage supply changes and mitigate disruption."

The growing complexity of supply chains

Today's supply chains have evolved into intricate networks spanning numerous continents, involving numerous stakeholders and touchpoints — making traditional management approaches increasingly inadequate.

"Supply chains today are increasingly complex and hard to manage," Martin notes.

This complexity creates vulnerabilities that can quickly cascade through operations when disruptions occur.

The response, Martin claims, is emerging in the form of advanced AI applications.

"AI is becoming essential to access data across entire supply chains in real-time and identify risks long before they escalate," he continues. "For example, machine learning algorithms can flag early warning signs, like raw material shortages or port congestion, and give companies a chance to intervene before bottlenecks arise."

Beyond reaction: The predictive revolution

What truly distinguishes next-generation supply chain management is the shift from reactive to proactive approaches.

This transformation is being driven by predictive capabilities that allow organisations to anticipate challenges before they materialise.

"AI also allows companies to model scenarios, simulate potential risks and pre-emptively design response strategies," Martin says.

"Predictive analytics takes companies beyond merely reacting to disruptions. By analysing historical and real-time data, it's possible to forecast future demand patterns and streamline operations."

This predictive capacity extends beyond known challenges to emerging threats.

Martin adds: "To go one step further, predictive AI can help to combat net-new challenges, which are emerging as climate impact becomes more unpredictable – or as we saw with the COVID-19 pandemic."

Real-world success stories

The transformative impact of AI and predictive analytics is already evident in organisations that have embraced these technologies.

Martin highlights Penske as a compelling example: "Penske, a leader in logistics and supply chain management, is a great example of how data analytics can support supply chain management.

"Penske faced the challenge of integrating data from disparate sources — fleet management systems, logistics platforms and customer demand data — to improve decision-making. With Qlik's analytics platform, Penske has consolidated all its data into a single, actionable view."

The results have been substantial: "AI-driven predictive analytics helped Penske anticipate issues before they occurred, whether it was flagging vehicles in need of maintenance, predicting delivery delays or preparing for demand spikes. These insights enabled Penske to optimise routes, reduce operational costs and improve delivery times—which helped the business to become more resilient and keep customers happy."

Another success story comes from the food industry in the form of Whitworth's, a major UK supplier of dried fruit and nuts, which has been using data analytics to manage its supply chain and mitigate risk.

Martin goes on: "Real-time insights have helped Whitworth's respond proactively to disruptions, pool inventory to meet demand during peak times and decided the most effective manufacturing locations."

The strategic imperative

The adoption of AI and predictive analytics in supply chain management is rapidly transitioning from competitive advantage to competitive necessity.

"Being able to understand and respond to events that impact supply chains is no longer a luxury; it's a business imperative," Martin emphasises. "Companies that embrace AI and predictive analytics now will be better equipped to weather future storms – some literal - while those that rely on outdated, reactive methods risk being left behind."

It seems clear that the future of supply chain management must be focused on anticipating, as opposed to reacting to, disruption.

For organisations beginning their journey toward AI-enhanced supply chain management, Martin offers some practical guidance: "Start small but think big. Identify a critical pain point in your supply chain where predictive insights could make a tangible difference. Build from there, ensuring that your team has the tools and training they need to fully leverage these capabilities."

Source: supplychaindigital.com

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HIGH STAKES 3PL WAREHOUSING: HOW TECHNOLOGY HELPS 3PLS NAVIGATE REGULATED INDUSTRIES

Learn how technology helps 3PL providers meet regulations in food, pharma, and hazmat logistics through visibility, monitoring, and automation.

If you're a **3PL** provider working with highly regulated products like food, pharmaceuticals, or hazardous materials, you already know the stakes are high. Customers expect precision. Regulators charged with protecting consumers demand compliance. And one misstep, whether it's a missed scan or a temperature spike, can lead to fines, recalls, or worse.

That's why having the right tech stack in place isn't just helpful, it's essential. From environmental monitoring to audit-ready reporting, technology enables 3PLs to deliver safe, compliant service across some of the most complex supply chains. With proven tools and systems that strengthen operations for both warehouse and customer, there's little reason not to embrace them.

Let's break down why regulated industries need specialized logistics support and how technology empowers 3PLs to rise to the challenge.

What Makes Regulated Logistics So Complex?

Regulated industries all have one thing in common: virtually no room for error. For example:

- Food and beverage companies need to comply with **FSMA** (Food Safety Modernization Act) rules, which focus on preventing contamination and enabling fast traceability. Traceability vis a vis lot and batch tracking is absolutely essential due to the need to locate product during a **recall event** which is quite common in the food industry. If your customer calls and tells you to put a specific set of products on hold and you can't track it - big trouble. You're endangering not just your commercial relationship but the health and safety of consumers
- Pharmaceutical manufacturers must meet current **Good Manufacturing Practice** (cGMP) standards and, in many cases, comply with DEA requirements for controlled substances. **Cold storage** with extremely tight temperature bands is critical to the fidelity of the extremely sensitive active pharmaceutical ingredients (API's) contained in most finished pharmaceutical goods
- Hazmat producers, distributors, and 3PL warehouses must follow **EPA**, **OSHA**, **DHS / CISA**, and **DOT** regulations for how dangerous goods are stored, labeled, and transported. Many of these substances are considered controlled substances and are of special interest to governments not just here in North America but also in Europe, the Americas, and Asia Pacific (APAC). These substances are globally regulated and 3PL warehouses using outdated technology risk not just running into issues at home, but also abroad

These operations can't rely on generic workflows or outdated manual processes. They need 3PLs that understand regulatory requirements and have the right systems in place to support them.

Why Technology Makes the Difference : Keeping up with regulatory standards is difficult enough. But staying compliant while also managing thousands of SKUs, rotating inventory, responding to recalls, and scaling operations? Just thinking about it can be headache-inducing.

Technology makes all of this not only possible, but also more efficient and reliable. Below are some of the ways **3PL warehouses** are using technology to stay compliant, streamlined, and audit-ready.

Real-Time Inventory Visibility : Regulated goods are often high-value and high-risk. Customers want to know precisely where their inventory is, whether it's in a staging zone or in transit. A modern **warehouse management system** helps provide:

- Real-time tracking of inbound, outbound, and in-stock items
- Detailed location history and movement logs
- Lot and batch tracking for recall readiness

This level of visibility is particularly important in industries like pharmaceuticals, where clients need to know exactly who handled the product and where it went.

Environmental Monitoring : Temperature and humidity control can make or break compliance. Whether it's frozen food, refrigerated medications, or volatile chemicals, it's crucial to maintain products within the right environment.

3PLs are increasingly using connected sensors and automated alerts to:

- Monitor storage conditions around the clock
- Log environmental data for compliance documentation
- Flag deviations before they become bigger problems

This is about more than just maintaining product quality. For many customers, verified cold chain integrity from receiving through delivery is non-negotiable.

Automated Documentation and Reporting

Manual compliance tracking is slow, error-prone, and difficult to scale. That's why many 3PLs serving regulated industries are investing in systems that automate key parts of the documentation process, including:

- Generating Certificates of Analysis or Compliance
- Storing Safety Data Sheets (SDS)
- Logging scan history and handling steps for each shipment
- Creating audit trails for internal reviews and inspections

The ability to instantly produce documentation during a customer audit or government inspection is a major differentiator.

Predictive Analytics for Risk Mitigation

It's one thing to react to problems quickly. It's another to prevent them altogether. Predictive analytics tools help 3PLs use historical data—like route performance, environmental fluctuations, and scan activity—to forecast and prevent issues.

Here's what that might look like:

- Spotting a recurring temperature fluctuation near a dock door
- Identifying routes that frequently lead to missed delivery windows
- Flagging inventory likely to expire based on movement trends.

These insights help reduce spoilage, avoid compliance violations, and improve operational planning.

Regulated Industries That Require Tech-Forward 3PLs

Not all compliance challenges are the same. Here's how **warehouse technology** helps address the unique demands of three key industries: food, hazmat, and pharma.

Food and Beverage

3PL Food Warehousing often involves multiple temperature zones, first-expiry-first-out (FEFO) inventory rotation, and strict sanitation protocols. Tech-enabled 3PLs can:

- Monitor and control storage conditions
- Log cleaning and maintenance schedules
- Support mock recalls with lot-level traceability
- Track product movement against expiration dates

This infrastructure is especially important for companies that need to meet FSMA standards or manage perishable goods.

Hazardous Materials

Hazmat warehousing is centered on safety and control. These materials often require fire-rated storage, special handling procedures, and comprehensive documentation. Technology plays a critical role in:

- Segregating incompatible materials
- Supporting digital labeling and placarding
- Applying geofencing to vehicles carrying dangerous goods
- Maintaining automated inspection logs for storage infrastructure

For 3PLs, this isn't just about secure storage—it's about showing customers and regulators that risk is managed proactively at every stage.

Pharmaceuticals

Pharmaceutical grade 3PL warehousing demands airtight quality control. These customers expect partners who can ensure product integrity, prevent tampering, and document every step of the process. That includes:

- DEA-compliant storage for controlled substances
- Secure access controls and logging
- Scan verification at every touchpoint
- Cold chain tracking with digital monitoring

For pharmaceutical clients, logistics is more than an operational need. It's a matter of trust, and that trust is built through technology.

What This Means for 3PLs and Their Customers

For customers in regulated industries, **3PL warehouses are an extension of their compliance programs**. If a logistics partner falls short, so does the brand it supports. That's why more shippers are prioritizing 3PLs with the technology to back their expertise.

They want to know:

- Can you maintain product specs 24/7?
- Can you show where every pallet is in real time?
- Can you prove compliance during an FDA or DEA audit?

The 3PLs that can confidently say "yes" are the ones building long-term relationships in highly regulated sectors.

Going Forward : As regulations tighten and supply chains grow more complex, the demand for tech-enabled logistics solutions will only continue to rise. From predictive analytics to real-time visibility, the tools that once seemed optional are now foundational. For 3PLs, the industries with the most oversight also offer some of the most valuable growth opportunities, but only if you're equipped to meet the challenge.

Source: www.extensiv.com

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INDIAN LOGISTICS INDUSTRY ADAPTING TO NEW REALITIES

The logistics industry in India -especially the last-mile delivery system—is experiencing significant growth at present raising expectations of an eventful 2024. An India Brand Equity Foundation (IBEF) report says the logistics market will reach an impressive US$ 380 billion by 2025, with a YoY growth rate of 10%-12%. Moreover, the government is looking to bring down the logistics and supply chain costs from 13-14% to 10% of the GDP.

Key players are adopting the latest technologies to enhance customer experience. The logistics sector recognizes the importance of streamlining cargo movement in a fast-paced environment. As a result, companies are keen on integrating new technologies for comprehensive management and strategic planning to be able to cater to the growing demands.

Last-mile drone delivery : The last-mile delivery system is undergoing significant technological transformation in response to such challenges as traffic congestion, customer preferences and regulatory complexities. Alternative delivery methods, such as autonomous robots and drones, backed by advanced tracking systems, can ensure faster, more efficient deliveries. Drones can reach remote areas for delivery, bringing down cost and time. There are many new businesses aggressively working towards exploring this space and overcoming challenges of transportation infrastructure, especially in remote locations with limited road connectivity.

Major food delivery companies such as Zomato, Swiggy, have shown interest in using drones for deliveries. Such e-commerce giants as Amazon and Flipkart are also likely to use drones for last-mile deliveries, while medical supply via drone is also gaining momentum in India's remote and hilly regions, such as Uttarakhand and Meghalaya.

IoT, AI, ML and robotics : Next-generation technologies—IoT, AI, ML and robotics—are making logistics and supply chain more customer-centric and sustainable. Automation of logistics processes results in significant increase in productivity and efficiency in workflow.

IoT is a connection of physical devices monitoring and transferring data via the Internet and without human intervention. In logistics and supply chain operations, integrating IoT technology improves efficiency, transparency and real-time visibility of goods. IoT further enables predictive analytics for logistics companies to anticipate demand fluctuations.

Artificial intelligence (AI) and machine learning (ML) algorithms enable logistics companies to be proactive in dealing with demand fluctuations. AI-enabled forecasting allows managers to plan supply chain processes and reduce inventory waste. Businesses are also leveraging AI to optimize route planning and load consolidation to reduce fuel consumption and carbon emissions to boost sustainability efforts.

Integrating robotics into logistics improves speed and accuracy of logistics processes and reduces human error. Robots improve productivity compared to human workers, although they do not replace humans.

Popularity of D2C brands : Over the past few years, India's D2C market has gained traction because of growing e-commerce penetration; improvement in digital infrastructure; growing millennial population; increase in consumer tech awareness and increasing number of D2C startups with their wide range of offerings. But it was Covid-19 that helped the D2C sector reach a significant milestone.

The D2C model is becoming more popular with established FMCG brands, such as ITC and Hindustan Unilever, facing stiff competition from new D2C businesses. Many companies are turning to this model because it eliminates the middleman. Infact, D2C brands have many options available for last-mile deliveries with various companies like Borzo, Shadowfax, Dunzo, Shiprocket aiding additional help.

Quick commerce – within 60 mins : Even some months ago, especially during the pandemic, customers expected same-day, or two-day deliveries. But online shoppers today have become more tolerant. A recent survey by Radial shows that less than 20% of consumers said 1-2 days was a realistic delivery period for online orders; nearly 38% felt 3-5 days was satisfactory; and for 35% of consumers, one week was reasonable. However, many consumers also want fast shipping. So, delivery speed is still an important buying factor. But the good news for eCommerce is that the intense pressure to deliver at record speed has eased. The challenging news is that retailers should be able to meet any speed, at any time.

MSME and its logistics needs : According to the MSME ministry, the sector plays a key role in India's economic growth, generating nearly 27% of the country's GDP. But logistics challenges for MSMEs are a barrier to efficient operations and growth. Experts say that, since the sector depends heavily on logistics, it was badly hit by the pandemic. One more challenge it faces is adoption of e-commerce solutions. According to experts, because of

the competitive market scenario, companies now prefer to hold inventories closer to their target markets for improved delivery efficiency. So, a logistics company that has a transportation and warehousing network with cost-effective, multi-location pick-up and deliveries, prompt assistance and interventions would be a better choice.

With Lok Sabha elections underway, the logistics industry is likely to come under the lens. With political equations affecting regulations, infrastructure investment and trade policies, the trajectory of the logistics industry is likely to be affected. So, players in this industry will be keeping an eye on the political scenario, which will decide the next changes in economic policies and trade agreements that will form the logistics environment. In this decisive year, India's logistics sector is ready to navigate a unique confluence of challenges and opportunities. So, businesses that can anticipate and embrace the new trends will not only succeed in this changing set-up, but also help India's logistics sector become sustainable and efficient in the coming days.

The views and opinions expressed in this article are those of the author and do not necessarily reflect the views of Indian Transport & Logistics News.

Source: www.itln.in

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THE RISE OF PREDICTIVE ANALYTICS IN SUPPLY CHAIN MANAGEMENT

Explore the rising trend of predictive analytics in supply chain management and discover how companies are leveraging data to enhance efficiency and mitigate risks.

Predictive analytics is establishing itself as a transformative force in supply chain management. As businesses continue to navigate the challenges of a complex and interconnected global marketplace, the need for more precise and actionable insights has never been greater. Leveraging predictive analytics allows companies to drive efficiency, anticipate market shifts, and mitigate risk.

In recent years, the application of predictive analytics in supply chains has gained momentum. By harnessing vast amounts of data, businesses can forecast demand more accurately, optimize inventory levels, and improve overall supply chain performance. Companies like DHL and Amazon have successfully integrated predictive analytics into their operations, resulting in streamlined processes and improved customer satisfaction.

Predictive analytics is particularly beneficial in demand forecasting. Traditional forecasting methods often rely on historical data and trends, which can be unreliable in rapidly changing markets. However, predictive analytics uses real-time data and advanced algorithms to anticipate demand surges or declines. This proactive approach enables companies to adjust their strategies swiftly, avoiding inventory shortages or overstocking.

Furthermore, predictive analytics offers enhanced risk management capabilities. By analyzing historical and real-time data, potential disruptions can be identified before they escalate. For instance, during the global supply chain disruptions caused by unforeseen geopolitical events, companies utilizing predictive analytics were better equipped to adjust their logistics strategies and maintain continuity.

While the benefits of predictive analytics are clear, challenges remain. Implementing these technologies requires significant investment in both financial resources and expertise. Moreover, data quality is crucial; inaccurate data can lead to erroneous insights and decisions. As a result, businesses are increasingly investing in robust data management systems to ensure the accuracy and reliability of their analytics models.

As industries continue to evolve, the integration of predictive analytics in supply chain management will likely become a standard practice. The competitive edge it provides firms by offering insights into demand, inventory management, and risk mitigation makes it an invaluable tool. Companies that embrace these technological advancements will be well-positioned to thrive in the constantly changing landscape of global trade.

Source: www.supplychaintechnews.com

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RISING SUPPLY CHAIN COMPLEXITY AND HOW TO MANAGE:

PALLIKKARA VISWANATHAN LIFE MEMBER IIMM BANGALORE/ HOSUR BRANCH, vid_shy@yahoo.com

Accuracy is given the highest consideration of importance in supply chain, to meet the needs of the supply chain, for complexity is caused by a variety of factors, which often result, as an issue for faster lead-times, expanded product sourcing, experiences of tailored action for needs, network complexities, process complexities on various range of complexities, product complexities, customer complexities, supplier complexities, also organisation complexities in supply chain.

Elements of complexities involves, as organisations have a high variety of process, interactions, involving large amount of dynamic levels of system involved during each process on procurement, sourcing, inventory control systems, distributions, delivery, customer orientations, which in many ways can be handled on the complexities, by automation, standardization, improving the operating procedure, financial matters, managing inventory on a real-time basis in supply chain.

Professional services involved in supply chain, on the complexities, as there is liability of various complexities in operations, leverage on proper data, in order to make better decisions, managing a perpetual inventory systems, cost of item often used, also on the introduction of new products in supply chain.

Ways to handle complexities is on the production of a single original equipment machine, requiring several specialised parts, from a speciality manufacturers, for the assembly of the items, on a diverse components manufacturers, supply chain adds on to the complexities of the different requirements, (design, specification, material content, requirement, delivery lead time) also on the diversity, uncertainty, multicity, variability in supply chain.

Network complexities in outsourcing of goods, services on external suppliers, also depends upon the Web services availability on Tier I, Tier II suppliers, as the awareness on Tier III, Tier IV suppliers, may also be available on suppliers, which is likely to feed the upstream, downstream in supply chain.

Numerous processes are available of components in supply chain, to manage various suppliers, on a wide range on the upstream, downstream suppliers, with developed complexities, that have to be added, modified, in order to reflect the requirements, which becomes a convenience on the performances, on multiple steps, that is necessarily to be performed as a series process in supply chain.

Design of products have a significant impact on suppliers, when complexity arises on the product design, specification, choice of materials, components, which is liable to affect horizontally, vertically, that have an effect on the total life cycle, agility, responsiveness', that arise on the type of products, components, assemblies, as there is likely to have very little reference in the Bill of Materials, which may lead to the flexibility, in the product mix in supply chain.

Business in supply chain is likely or bound to be affected by the unforeseen conditions, disruptions, risk, innovations, challenges, benefits, on an end-to-end visibility, which is likely to effective deal with the complexities, on the potential benefit of the activities in supply chain.

Globalisation is likely to bring in better suppliers, with a huge supplier base available, in which material suppliers, spare parts, components, are to be sourced from different locations, on a unprecedented, disruption, risks, which is likely to cause complexities in supply chain.

Automation can represent all possible operations, procurement, sourcing, cost-savings, track-orders, make enquires on multiple suppliers, increase efficiency, reduce errors, delays, also bring the critical complexities, challenges in supply chain.

Cloud computing forms the next level of collaboration in supply chain, with complexities of joint platforms, between customers, suppliers, providing either shared logistic infrastructure, on even joint planning solutions, especially on a non-competitive relationship, that decide to save different tasks, also bring down costs, by leveraging the best practices in supply chain.

Custom less truck load panel, with dashboard to track consignments on a Part Truck Load basis are able to track freight charges, with the complexities involved to reach break-up of delivery cost, in many of the elements of cost, delivery, with the use of advance data analytics, to forecast demand for stock keeping unit, which is used in the organisation to be used transportation management system, to plan, optimize transportation route in supply chain.

On the last mile delivery in logistics does involves a serious of complexities, as the task aims to ensure the efficient, likely delivery of goods to the end customer, which encompasses order processing, routing mapping, optimizations of despatch tracking, also co-ordinating the final delivery, as the primary goal becomes an intricate on a web of urban traffic areas, with congestion delivery, customer expectation, with the maximum expectation from the customer satisfaction in supply chain.

Buyers should need to understand the complexities', the real balance of power on the relationship with the suppliers, in the organisation, as many buyers see their supply chain base as very limited, with few or new alternatives for the requirement of capital equipment, also the lack of competition, that is likely to bring down the market price, as this situation leads to that there are not many buyers, as also buyers may not be able to replace suppliers, also there is chance the supplier's cannot replace customers in supply chain.

Buyers should necessarily be aware of the performance, complexities; strategic ways on the investment is to be bought on the procurement of capital equipments, within the organisation, also as a source of leverage on the expanding position of the organisation, proposing an increase or reduction in the total project scope, to bring otherwise a complacent supplier for negotiation on the total spend management in supply chain.

Supply chain should work to reduce manufacturing transit, storage, just-in-time inventory methods, allowing organisations to minimise storage costs, reducing complexities on capital requirement on procurement of inventory as a perfect solution, to improve the responsiveness, also working with the right trend, on the needs with the importance on wider consumer products sectors in supply chain.

Primarily optimizing supply chain is an paramount importance, in order to bring in simplicity, transparency, complexities, across the process, as this helps to identify, low performing, cost intensive operations, also improve, unify the supply as one process, that facilities clear communication between different compartments within the organisation in supply chain.

Efficient supply chain requires proper data, as a beginning, as nascent data is never useful, that is to be processed, prioritised, collated in order to be effectively analysed, without any complexities, in order to make proper procurement, inventory control decisions, as one of the ways of setting up of a dashboard, to involve all the information that need real-time to make strategic decisions in supply chain.

Decisions to invest in strengthening supply chain activities, on technology is to yield rich dividends, also on automating the organisations functions, building greater agility, resilience, right from manufacturing, production, distribution, delivery, daily operations, retail, logistic channels, without complexities, right from system planning, capabilities, on additional requirements in logistic, supply chain.

The retail sector combining the rural sector, the rise in consumption, drives the complexities in the consumer market, especially in the durable market, on the spend management, within the consumer market is growing, driven by growth, product prices, on essential goods, due to various value augmentation, also on the initiatives of the consumer's, growth in reaching new heights in supply chain.

Growth of E-commerce with the technological evolution has affected both the urban, rural areas in supply chain, due to greater accessibility, throughout with discernible shift in demand, as this offers greater conveniences to customers, without any complexities to buy products of their choice, also moreover the facility of home delivery of goods in supply chain.

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BRANCH NEWS

LUCKNOW BRANCH

Golden Jubilee Celebration of IIMM DAY of IIMM LUCKNOW Branch, Lucknow held on 23-4-2025 AND 24-4-2025. Daywise details are as under: -

23-4-2025 : Seminar Inaugurated by Mrs Ruchi Agarwal Addl. General Manager, Hindustan Aeronautics Ltd, Accesores Divn. Lucknow.

Key Note speaker Dr. J.V. VAISHAMPAYAN EX Vice Chanceller Kanpur University, Bundelkhand University & Rajshri Purshottam Das university, Faizabad.

Topic :- Tarif war & its Impact in our Economy.

Dr. Vaishampayan Cover every axpects of tariff war and its impact in economy & Common man life also. Memento given by Mr. DK Dubey Chief Mgr (IMM), HAL, Lucknow. Life Membership is also given by Mr. CK Vishwakarma, Ex EDHAL Del office to Dr J.V Vaishampayan for recognise there service in IIMM,LKO Branch ,LKO . Vote of thanks given by Brajesh Singh, GM Tata Motors Ltd. LUCKNOW

24-4-2025 : Seminar Inaugurated by Rajshree Sharma GM Vigillence. HAL, corporate office, Bangalore.

Key Note speaker Mr. Rejender Sharma,Ex General Manager, Hindustan Aeronautics Ltd. Overhaul Division Bangalore .

Topic :- Supply Chain Logistics & Risk Management Mr. Sharma have given power point presentation which

are appreciated by everyone Memento given by Mr. K G. Bansal DYGM (IMM) HAL, LKO, Mr P.K Bajpai & Mr CBS Rathore. Trophy given by Mr. Atul Kumar, Chief Manger Purchase Tata Motors, LKO. Vote of thanks given by Mr Bhola Shanker Ex AGM (P) HAL corporate office Bangalore.

KOLKATA BRANCH

National President's Visit - To IIMM- Kolkata Branch on 5th June 2025

They also visited Kolkata Branch in the evening of 5th June 2025 to have an interactive session with the members of Executive Committee and the staff at the IIMM, Kolkata office. Mr. Koushik Roy, Chairman, IIMM, Kolkata Branch welcomed the National President and Dr. Samar Roy Chowdhury at IIMM Hall on behalf of the staff and executive committee of IIMM, Kolkata.

Chairman, Kolkata branch apprised the NP about the preparedness of the branch to conduct the GDMM and PGDMM examinations at IBM, Jadavpur. The admission process for the July session of PGDMM has already commenced and newspaper advertisement for the admission would be published in Times of India and Economic Times in the third week of June. Discussions were also held on the need to introduce a suitable course by the NHQ to replace GDMM. Branch chairman also expressed his concern about the unwillingness of the students to join a curriculum where physical attendance is mandatory. He specifically mentioned that despite the best efforts by the staff and faculty, the response to

admission in the Advanced Diploma in Supply Chain Management to be held jointly with IBM and NCEB have received a lukewarm response from the students leading to postponement of the programme thrice.

The NP, at the request of Mr. K Gupta, Admin Manager, agreed to review the system of charging Rs.1,000 towards the cost of passing out certificate for the students. He also agreed, at the request of Mr. Sudip Sengupta, to look into the pending application of Mr. Manoj D for the registration for a fellowship programme. The National Presidents appealed to all the staff and members of EC to make an all-out effort to improve the growth of membership from Kolkata branch.

The meeting was concluded with vote of thanks from the Vice Chairman of Kolkata branch, Mr. Kaushik Mukherjee.

Inauguration DMLM April 2025 Session

Sunday, 11th May, 2025 at 11:00 a.m. at the IIMM Hall, at 8B, Short Street, Kolkata-700 017

IIMM, Kolkata Branch launched a new programme, "Diploma in Materials & Logistics Management" (DMLM) on Sunday, 11th May, 2025 at 11:00 a.m. at the IIMM Hall, at 8B, Short Street, Kolkata-700 017. The curriculum is intended to impart basic and fundamental knowledge in materials and logistics management to the participants who have little or no exposure to the subject. The classes as well as the written examination will be held online. Due importance is given to case study oriented discussion, oral communication and practical exposure of the students to modern warehouse management by making one visit to a warehouse as part of the curriculum. 30 students have joined the programme. Some of the students had joined from Bihar, Madhya Pradesh also.

The Chairman, Course coordinator, Co-chairman and other members of the executive committee were present at the inauguration function. Mr. Koushik Roy, Chairman, IIMM, Kolkata, formally inaugurated the course outlining the course curriculum. He expressed thankful to all the students and requested the students to join online classes regularly. He introduced himself with all students individually and requested the students to explain about themselves. Mr. Debasis Mallick, Course Coordinator explained the syllabus of DMLM Course module wise and explained the type of questions of written and viva voce and also factory /warehouse visit. Mr. Sajal Das, Co-chairman, Education took first class and Mr. Pintu Kole took 2nd class on SAP (MM).

Tea and lunch were arranged for all of them. During Lunch Break, students were provided lunch packets. During the interaction, most of the students expressed for offline classes as far as possible. Study Materials, Bags, Pen, Note Pad, class scheduled were distributed to the students. The enrolled students made a Whatsapp

Group for online classes.

PUNE BRANCH

2-Day Training Program on "Effective Negotiation Skills" : The Indian Institute of Materials Management (IIMM), Pune Branch, successfully conducted a two-day in-house training program on "Effective Negotiation Skills" for Century Enka Ltd. (Aditya Birla Group) at their Bhosari Plant, Pune, on 30th & 31st May 2025.

The training program was attended by approximately 20 members from the procurement team of Century Enka Ltd., aiming to enhance their negotiation capabilities in the current dynamic business environment. The training sessions were delivered by two senior faculty members of IIMM-Pune, Mr. Suhas Pakhare and Dr. Kaustub Khadke, both of whom bring with them over 20 years of rich experience in their respective domains of Supply Chain Management and Business Communication.

The training covered a range of critical topics including negotiation planning and strategies, communication skills, handling difficult situations, and achieving win-win outcomes. The sessions were highly interactive and included case studies, role-plays, and group exercises.

The program also witnessed the presence of Mr. Suresh Sodani, Managing Director, and Mr. Sandeep Shandilya, Vice President – Commercials, of Century Enka Ltd., reflecting the leadership's strong commitment towards capability building and professional development of their teams.

The training was well-received by all participants, who appreciated the practical insights and structured approach delivered by the expert trainers of IIMM-Pune.

RAJKOT BRANCH

Formation and maiden event of the Rajkot Branch on 14th June, 2025

We are delighted to announce the formation and maiden event of the Rajkot Branch of the Indian Institute of Materials Management (IIMM), officially constituted on 28th April 2025.

The foundation of this branch was laid by Ms. Binal Darji on 27th July 2024 at the sacred land of Lord Ram Janmabhoomi, Ayodhya, symbolizing a spiritually empowered beginning. With the divine blessings of Lord Ram and Lord Shri Krishna, the Rajkot Branch becomes the 2nd branch in the Saurashtra region, aiming to serve industries and promote awareness and education in Supply Chain, Procurement, Stores, and Materials Management.

Maiden Event Details: Date: 14th June 2025 Time: 12:30 PM onwards. Venue: [Hotel Comfort inn Rajkot]

Chief Guest: Shri L. R. Meena, National President, IIMM

Guests of Honor: Shri Lalbhai Patel Former President, IIMM, Shri Malay Mazumdar, Former President, IIMM, Prof. (Dr.) Suresh Sharma, Co Chairman Board of studies & Former President, IIMM.

Event Conveners: Shri Pankaj Panchbhai, Vice President – Western Zone, Shri Hitendra Patel, Chairman – Rajkot Branch, Rajkot Branch Leadership Team:

Vice Chairman: Mr. Manish Yadav Secretary: Harish Patel

National Council Members: Ms. Binal Darji and Mr. Nilesh Kikani

Executive Committee Members: Ms. Geetha Nambiar, Ms. Bhagyashri Dodiya, Ms. Megha Panchal, Co-opted EC Member Mr. Vidit Nathwani & Mr. Nitish Yadav

Press conference and media briefing done by National President Shree L.R. Meena, Former Presidents Shree Lalbhai Patel, Shree Malay Mazumdar, Dr. (Prof) Suresh Sharma BoS co chairman, Mr. Pankaj Panchbhai VP west, Mr. Hitendra Patel Chairman and Ms. Binal Darji NC member of Rajkot Branch.

Event started with Ganesh Vandana and lamp lightning by dignitaries. Chief Guest and Guest of honor were welcomed by team Shakti with saplings and with Shawls by senior IIMM members available.

We observed 2 minutes silence and prayed for the innocent victims and their families and for the recovery of the injured of recent Air India Flight Crash in Ahmedabad, in which we also lost stalwart of Rajkot city our beloved and respected Former CM of Gujarat **Shree Vijay Bhai Rupani**.

Members and guests welcomed by Ms. Meenal Goswamy, and Mr. Hitendra Patel. National President Shree L.R Meena gave an insights @ IIMM and shared his experience about accepting new challenges and fulfilling it.

Former President & our Mentor Shree Lalbhai Patel addressed gathering with his vast experience about IIMM.

Former President Shree Malay Mazumdar shared the memory about the first Saurashtra Branch of IIMM in Jamnagar which was inaugurated in their VP West tenure and shown the path to Rajkot Branch How to achieve more milestones.

Prof. (Dr.) Suresh Sharma, Co Chairman Board of studies & Former President, IIMM addressed gathering with his vast experience in educational sector. He mentioned about continues updating in educational study materials of IIMM to cope up with the latest and modern education system. He also shared about the timeline discipline he bought in current educational activities along with CRIMM insights.

The Presidential Medal was awarded to Ms. Meenal Goswamy, Ms. Binal Darji, Mr. Bhavik Soni, Mr. Sanjay Kalay, Mr. Awadhesh Yadav, Mr. Jayanta Chakraborty and Mr. Hitendra Patel for their contribution towards the formation of Rajkot Branch. New members including EC member of Rajkot branch were awarded with the Memento and welcome kit by the National President.

Mr. Jayanta Chakraborty delivered a talk on “Role of

Supply Chain in modern industry: an overview"

In his talk the areas covered were Procurement, Stores, Inventory control and Material Planning, Logistics, Operation Management, World class manufacturing technologies, Finance management, Legal and Legalities and Man Management.

Which gives glimpse of upcoming new technologies like Artificial Intelligence, Data Mining, Block Chain, IoT, Intelligent Stores, Automatic stock Replenishment System, Machine Language. Speaker of the day was recognized at the hands of Dr. (Prof.) Suresh Sharma BoS co chairman.

Vote of thanks delivered by Mr. Awadhesh Yadav NC Ahmedabad Branch followed by National Anthem.

Several Eminent Dignitaries, CEO's, Industry Veterans from Rajkot like Mr. Rushikesh Trivedi from NeelKanth Properties (Consultant & Developers), Mr. Bhavesh Pathak Govt Mathematic Teacher, Mr. Vijay Pathak, Senior Entrepreneur, Mr. Ashutosh R. Joshi DGM AM/NS India Limited (Arcelor Mittal Nippon Steel India limited) and from Ahmedabad Mr. Sanjay Patel Scientific Instruments Pvt ltd , MR. PRAKASH C NARSINGHANI MANAGING DIRECTOR VENUS COMPRESSORS PVT LTD along with Senior Distinguished Members, Hon. Fellow Members and Executive Members specially Dr. Dilip Choudhury & Mr. Hiren Trivedi with their family members had graced the occasion.

Whole event was coordinated and conducted by Mr. Pankaj Panchbhai VP west with his lucrative style started with the IIMM Mission: - To Promote professional excellence in materials management towards National Prosperity through sustainable development and journey of Formation of Rajkot Branch and mentioning Special thanks to Mr. Manoj Bhai Tilara Trustee Saper Industrial association (SIA), Mr. Amrut Bhai Gadhiya Chairman SIA, Mr. Popat Bhai Kachhdia Manager SIA, Mr. Ravi Delvadia , Mr. Nayan Depani owner Easy Boba Bubble Tea, Ms. Bhagyashri Dodiya from Rajkot and last but not least Mr. Lomesh Dave, Mr. D.K. Goswamy for their unforgettable contribution. Mr. Pankaj Panchbhai was awarded at the hands of National President with Presidential medal for his tireless effort.

This momentous occasion represents a significant milestone in expanding the reach of IIMM in Saurashtra and Kutch, creating new opportunities for: Professional development, Knowledge exchange, Academic advancement in the field of Materials and Supply Chain Management.

Let us join hands and grow together as we embark on this meaningful journey to empower professionals and contribute to India's evolving supply chain landscape.

Jai Shri Ram • Jai Shri Krishna • Jai Somnath.

BANGALORE BRANCH

17th May 2025 – Monthly Lecture Program : The IIMM Bangalore Branch organized a Monthly Lecture Program on "Optimizing Inventory for Standard Runner Items" on 17th March 2025 at 06.30 PM at an MS Teams meeting by Mr Deepak Kumar D.N., CPSM, MBA-OM, PGDOM, BE (Mech. Engg.) Dy. Manager –Materials, Ace Designers Ltd. Mr. M.R. Achyuth Rao, Vice Chair, welcomed the speaker and gathering. The lecture program was very interactive and good feedback was received from the participants.

23rd May 2025 – Workshop: The Indian Institute of Materials Management-Bangalore Branch organized a one-day certification workshop on "International Trade and Export Documentation" on 23rd May 2025 (Friday) at Hotel Paraag, adjacent to The Capitol Hotel, Raj Bhavan Road, Bangalore.

A view of participants - workshop on International Trade - 23.-5.2025

Session handed by Mr. D. Murugesan, Senior Faculty member of IIMM. In the workshop, the speaker focused on disseminating information on the latest Incoterms and updates on FEMA, apart from dealing with the Exchange Control Mechanism and Letters of Credit and how to draft customized LCs. He covered all the following content as per the program schedule.

• Current trends in international trade and fast-changing fortunes for India

- Exports—step-by-step procedures, and how are they made so much simpler?
- Imports—A relook at the simplified procedures.
- Trade Credit, High Seas Sales—Bonanza for Importers
- Government Incentives for Exports and Risk Management Strategies in International Trade

About 27 participants attended the workshop from the various sectors. Participants given excellent feedback.

2nd June 2025 to 5th June 2025 – Inhouse Training Program: IIMM Bangalore Branch conducted four days Inhouse training program on Supply Chain Management for the executives of Hindalco Ltd from 2nd June 2025 to 6th June 2025. Senior Faculty Mr. Murugesan, Mr. Rajendran and Mr. G. Balasubramanian handled the sessions.

We have received very good feedback from the organisation and participants.

5th June 2025 – Industry Visit: IIMM Bangalore Branch Chairman Dr. A.V. Shama Sundar and team visited IISc, and discussed with Col (Dr.) K. Joshil Raj, CEO, Centre of Excellence in Design, IISc, regarding conducting skill development programs collaboration with IISc.

IISc visit on 5th June & IIMM Chairman and team with IISc Dignitaries

21st June 2025 – Workshop : The Indian Institute of Materials Management-Bangalore Branch organized a one-day certification workshop on "Cost Reduction in Efficient Procurement" on 21st June 2025 (Friday) at Hotel Paraag, adjacent to The Capitol Hotel, Raj Bhavan Road, Bangalore. Around 50 participants attended and received excellent feedback.

A group of Participants with Faculty -workshop on 21.06.2025

CHANDIGARH BRANCH

IIMM Chandigarh branch organized the Kaizen Explorer competition at Godrej Mohali. Initially more than 20 participates from Mohali, Ludhiana, Baddi, Faridabad and Noida participated.A panel of Mr S.K.Sharma Former National President,Mr Rajesh Gupta Chairman Chandigarh branch Mr Arun Batra NC and Kiran Rampal Vice Chairman Chandigarh branch scrutinized all entries and selected 8 participants for final presentation in the presence of Mr S K Sharma,Mr Rajesh Gupta and Mr Aakash Sehgal Head Supply Chain and Strategic Sourcing Godrej Mohali.

Following were the winners and accordingly certificates were given.

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TECHNO INDIA UNIVERSITY HOSTS GLOBAL SUMMIT IN ASSOCIATION WITH IIMM - CRIMM

On June 5, 2025 — World Environment Day — Techno India University, West Bengal, hosted a landmark Global Summit titled "Wealth from the Blue: Opportunities and Challenges" at its Kolkata campus. The summit brought together national and international leaders, academicians, industry experts, and policymakers to discuss the immense potential of the Blue Economy — a term that refers to the sustainable use of ocean resources for economic growth, improved livelihoods, and jobs while preserving the health of ocean

This summit was organized in collaboration with the Millennium Institute of Energy & Environment Management (MIEEM), Indian Institute of Materials Management (IIMM), Centre for Research in Materials Management (CRIMM), and the Federation of Small and Medium Industries (FOSMI).

The event began with a ceremonial lamp lighting and a welcome address. The inauguration and digital plaque unveiling were done by Prof. Manoshi Roy Chowdhury, Co-Chairperson of Techno India Group.

Prof. (Dr.) Basab Chakraborty, Managing Director of STEP, IIT Kharagpur, Goutam Mohan Chakrabarti, IPS (Retd.) and Senior Vice Presidnt of Reliance, Mr. Lalit Raj Meena, National President of IIMM, Shri Gautam Ray, Vice President of FOSMI, and Prof. (Dr.) M. Satish Kumar from Queen's University Belfast enlighten the august gathering with their specific area of topics.

Shri L R Meena discussed with the need for efficient logistics and material management in marine industries and in particular the sustainability of logistics through ocean shipment to protect the environment and various animals inside the water.

Research scholars presented various topics on the area of oceanography and sustainability. National President IIMM awarded Ms Swati Chakraborty Research scholar a special best award for her presentation on Paper Title: Blue Carbon Potential of Inshore Seaweeds in the Bay of Bengal.

He also announced various discounts and facilities to the students for forthcoming NATCOM to be held on Ahmedabad during November.

All the eminent personalities appreciated and scholars & students expressed their gratitude to National President IIMM with warm apploudg.

Prof. (Dr.) Goutam Sengupta, Rector of Techno India University College Chairman of CRIMM said: "I am extremely happy to note how the summit collaborators have all synergised for a common cause of Blue Ocean Strategy opposed to Red Ocean Strategy to save mankind from the impending disaster. This summit stands as a beacon of hope, demonstrating how innovation can lead to holistic and sustainable market opportunities."

TIU felicitated Prof(Dr) S Roychowdhury who focussed the audience about IIMM activities and invited all to participate in NATCOM with various benefits for faculties and students.

Dr Sengupta proposed to induct Dr Roychowdhury as Evaluator of Thesis/ desertation of CRIMM and National President approved.

For more information please contact

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