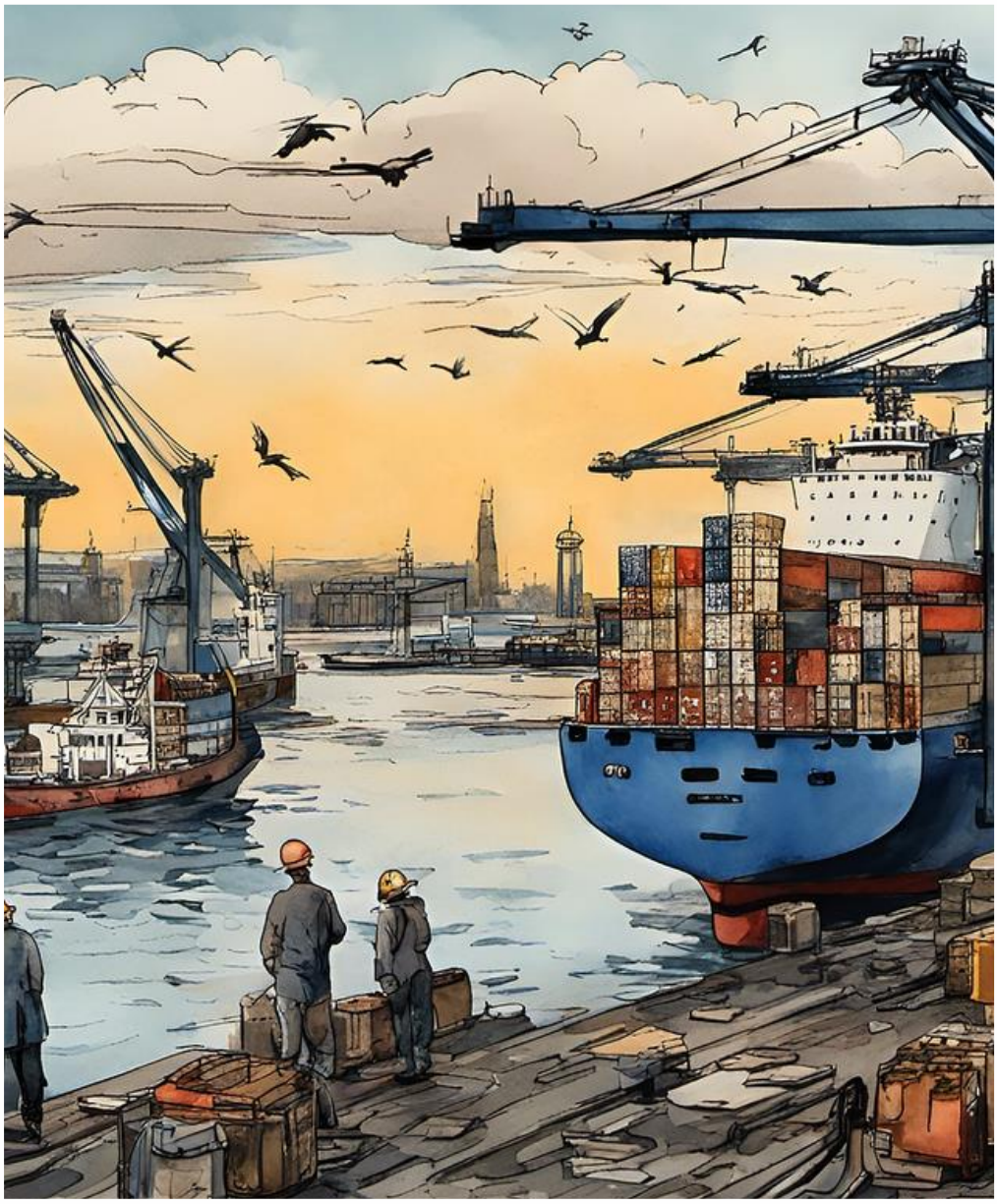
DISHA

2023-25, VOLUME I



A NEWSLETTER BY THE DEPARTMENT OF OPERATIONS AND SUPPLY CHAIN MANAGEMENT.

ITM BUSINESS SCHOOL, KHARGHAR

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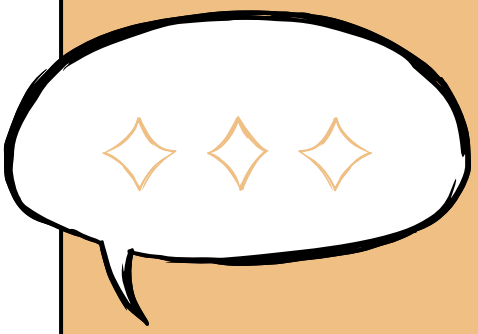


WORDS FROM ITM LEADERS

DEPARTMENT OF OPERATIONS AND SUPPLY CHAIN MANAGEMENT

Message from Director

Congratulations to Operations & SCM Team for helping us stay up to date with their newsletter! This initiative is sure to benefit all the management graduates in becoming aware of the importance of Operations and Supply Chain as a relevant business function. OP & SCM streamlines everything from product flow to unexpected natural disasters. Close interconnection of logistics, procurement, operations encompassing supply chain management meets the needs of business houses today. An effective SCM can eliminate or effectively deal with problems and meet the needs of both producers and consumers. Organization's that want to achieve sustainability over a long period will be wise to invest in dynamic and advanced supply chain management and operations systems. This newsletter is bound to be a great connection to understand the best practices followed in this field. The articles, trivia and topics are sure to be a treasure for readers to unravel.

Happy Reading and Best Wishes.

Dr. Lakshmi Mohan
PRO VC - ISU
Director – ITM Business School

Message from Dean

My compliments to team Operation Management for bringing out the newsletter of the department. this will provide a platform to building managers to express their domain specific knowledge and creative talent. I wish all the best for the upcoming newsletter and hope it would broaden its scope in thein the future months and years to come.

Best wishes.

Dr. Saritprava Das
Dean – ITM Business School

Message from HOD

“Empower the present, enrich the future. The boundless potential of young minds transforms aspirations into achievements.”

“DISHA", our beacon of wisdom and insight, illuminates the path for our students in the intricate world of Operations and Supply Chain. This newsletter is not just a collection of words; it's a journey of discovery, shared knowledge, and collaborative growth.

In each article, we find the heartbeat of our department pulsating with the enthusiasm and intellect of our students. Your commitment to excellence, innovative thinking, and dedication to the field shine through the pages of DISHA.

Let's continue this journey together, embracing the learning opportunities and paving the way for a future where our Operations and Supply Chain communities thrive. Your contributions make DISHA not just a newsletter but a vibrant reflection of our collective passion and commitment. Here's to the endless possibilities that lie ahead and the exciting ventures we'll undertake as a united community. Happy reading and keep the "DISHA" spirit alive!

Best wishes.

Asst. Prof. Gayatri Kaple

HOD - Operations & Supply Chain Management

ITM Business School

ARTICLES

DEPARTMENT OF OPERATIONS AND SUPPLY CHAIN MANAGEMENT

VECHAIN

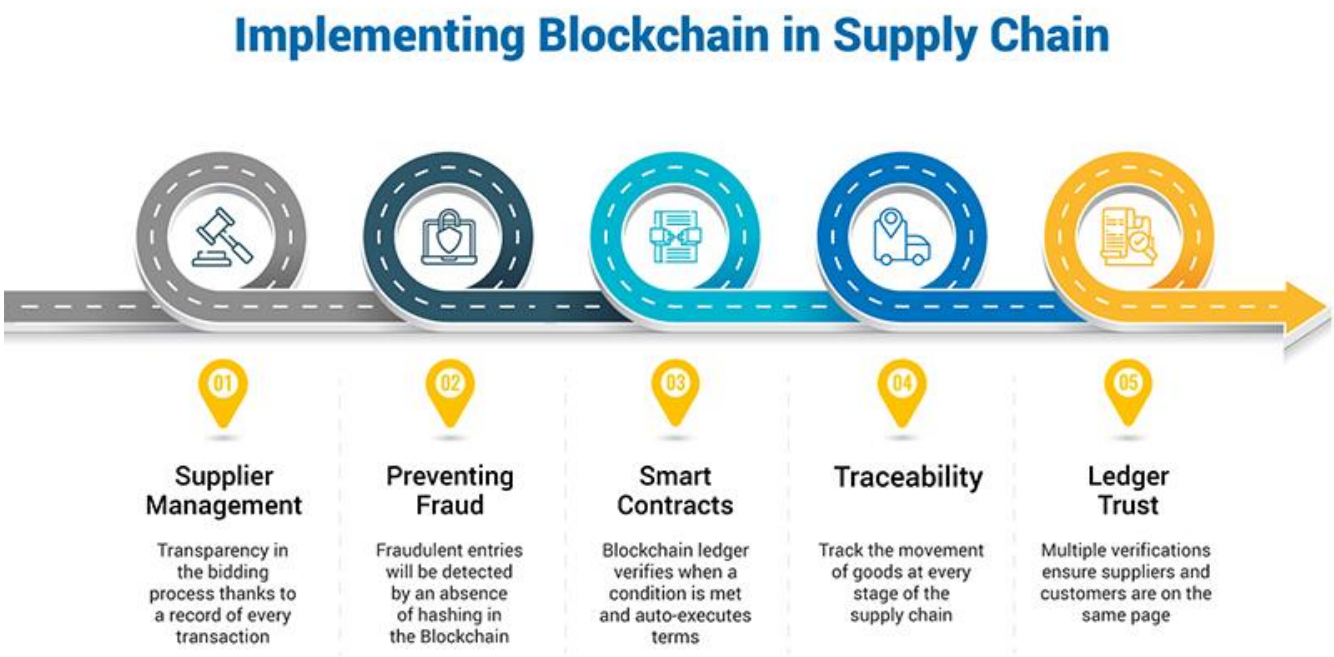
Leading the Blockchain Revolution in Supply Chain

Blockchain is a distributed ledger technology that allows for a decentralized system with peer-to-peer transactions. This means that no sole authority has control over the complete system. Satoshi Nakamoto was the first person to bring forward such an idea of a digital currency application. Blockchain through various improvements has the potential to bring to the supply chain industry traceability and transparency in the complete process in a secure manner. The way blockchain works is that every transaction that occurs during a process in the supply chain industry is turned into a hash, the hash is dependent not only on the current transaction but on the previous hash as well. Once a transaction has been verified, it is added to the blockchain as a block in chronological order. Each block is linked to the previous block and combined they make a blockchain. The data in a blockchain is stored in multiple computers known as nodes; these also check the hash and verify transactions. What makes blockchain so secure is that the blockchain is stored on multiple computers so causing a major security breach would require data corruption on a multitude of computers; furthermore, since all hashes are linked and inspected by nodes, a hacker would have to change all those hashes for an invalid data entry to be made in the blockchain. Blockchain consists of several components; one of them is a transaction on blockchain which is created when two or more participants exchange monetary values, possession of fiat currency, assets, cryptocurrency, or a contract between two or more participants. Another type of transaction is the creation of non-monetary e.g., medical records, land registry records, rental of goods, etc. There is another type of transaction that relates to supply chain management, business process automation (within smart contracts), and compliance or auditing of financials. A smart contract is a software program that constitutes a set of conditions, once these set of predefined conditions are met, certain actions are performed (such as transferring funds, transferring ownership, or sending notifications, etc.). The incorporation of blockchain technology with smart contracts allows for versatility in creating and modelling programs that cater to real-world problems through less expensive and time-consuming means that also exclude the need for any third-party system. We can write smart contracts on Solidity, Rust, Yul, Vyper, or DAML (Defence against money laundering). Another benefit of Smart contracts is decreasing risk, and cost, removing intermediaries on one side, and increasing accuracy, speed, and real-time updates in business models on the other side. They are self-executing, self-enforcing, and governed by business logic among parties. Moreover, there are different types of Blockchain networks. They can be public where anyone can write to the blockchain without authorization or permission. Alternatively, a blockchain could be private where permissions need to be granted for adding and retrieving transactions. Open vs. Closed Blockchain exists in which open allows full public access to retrieve transactions. Closed blockchains allow participants with permission to retrieve transactions. In addition to enhancing security and transparency in supply chain processes, blockchain technology also promotes efficiency by reducing the need for intermediaries and providing real-time updates through smart contracts. This decentralized approach not only minimizes risks and costs but also fosters a more agile and responsive ecosystem in various industries.

Is an example of a closed Blockchain where certain roles with permissions could be allowed to see Election results and others can only cast a vote.

The supply chain management system consists of a multitude of levels and systems, such as, manufacturing, procurement, storage, shipment, food processing, etc., which also will have terms and conditions among participants. These terms and conditions will be specific to the involved participants at each level of authority. Blockchain nodes carry out confirmation and check the validity of the transaction, upon which if the requirements (business rules of smart contract) are met then events (rules) of a smart contract will start to execute. One example in supply chain management system using smart contracts can facilitate multiple parties by requiring their virtual signatures for agreement or calling a shipment to be sent after the manufacturer receives order from a supplier, or compliance or regulatory authority receives components of the product being shipped for approval. If the contractual clauses of a smart contract are to be compared with real world analogue data, then systems called “oracles” are used to fetch this data and validate it. A smart contract consists of value, address, functions, and state. A transaction is taken as input, the relevant comparisons are made and accordingly, the code is executed to produce a certain output.

Blockchain compliments smart contracts in a supply chain industry as blockchain nodes complete the task of verifying and validating the conditions as well as allowing for this to take place in a secure open environment (Boschi et al., 2018). For example, a transaction in the Ethereum blockchain can be explained as a signed message sent by an externally owned account (owned by a user on the Ethereum blockchain) to another account on the Ethereum Blockchain. This transaction is a serialized binary message which contains Recipient, Signature, Gas price, (fee the sender offers to pay to the miner), value (currency amount to be transferred to the recipient), Gas limit (fee paid by initializer of a transaction), Value and Data (metadata or any data to be stored with a transaction) (Ethereum Transactions, n.d.). Nonce is a sequence number issued by the blockchain to prevent message replication and this is zero-based counters. Gas price value in terms of crypto which is paid by the originator of the transaction and Gas limit is the maximum amount of gas that the Originator is willing to pay. Recipient is where the transaction is sent, and this is a public address on the blockchain. Value is the amount of crypto that is sent to the recipient and Data is binary payload of variable length.



VECHAIN DISRUPTING TRADITIONAL MANAGEMENT

VeChain was founded in 2015 and is a project of Blockchain. The project was devised as a supply chain management and anti-counterfeiting system based on blockchain and IoT technologies. However, in December 2017 it was rebranded and relaunched as VechainThor blockchain for dApps. VeChain is popular for its blockchain technology and smart product tracking chips which can be integrated into various devices like NFC chips, QR codes, or RFID trackers. The main objective of VeChain is to optimize the supply chain to ensure anti-counterfeiting, and product safety and to verify product authenticity (VeChain, n.d.). The VechainThor blockchain is established on the Ethereum blockchain and it is best known as a platform for dApps. VeChain borrowed the technical blocks from Ethereum such as the accounting/balance blockchain model, Recursive Length Prefix (RLP) encoding methods, Ethereum virtual machine (EVM), etc. It takes 10 seconds to generate a block in VeChainThor whereas the development team states that the VeChainThor blockchain can go up to 10,000 transactions per second (TPS)

including the proof of authority (PoA) consensus mechanism. Initially, the platform was launched with 50-TPS a value that matched the needs of the network at the time. VeChainThor transactions are multitasking since it allow them to perform multiple actions in a single operation. The highest TPS recorded was 165. The main feature of VechainThor is that it is designed to mass integrate blockchain technology into business – for this, the project further requires development to simplify the real use of business technologies, in addition to transferring value which is blockchain's primary function. VeChain enables Smart Contracts that can automate entire processes and ensure their transparency without the need for third-party intervention or modification. To enhance supply chain efficiency, businesses require both transparency and efficiency. VeChain achieves this by integrating blockchain technology into supply chain management processes. Vechain and its affiliates have developed solid cross-industry partnerships that will facilitate ecosystem adoption and collaboration.

VeChain enables Smart Contracts that can automate entire processes and ensure their transparency without the need for third-party intervention or modification. To enhance supply chain efficiency, businesses require both transparency and efficiency. VeChain achieves this by integrating blockchain technology into supply chain management processes.

The VeChainThor blockchain operates similarly to other business blockchain platforms, but it stands out by providing more integrated and efficient blockchain solutions through its Blockchain as a Service (BaaS) product, Toolchain. This tool allows businesses to create custom blockchain-based solutions to fit their specific needs.

Through the use of smart contract technology, all transfers or product sales must fulfill specific conditions set in advance. The blockchain network securely captures and encrypts all transactional data and related information, enabling full process automation without third-party engagement and guaranteeing transparency and tamper-proofness.

The PoA consensus system is used in the VeChainThor blockchain to enable the use of Authority Master nodes (AM) that are trusted to confirm transactions. AM are the primary complete nodes responsible for maintaining the VeChainThor blockchain by verifying and adding blocks to the chain, as well as participating in platform governance. In return for these duties, they earn rewards which are denominated in VET tokens.

Advantages of VeChain

• Digitalizing Assets

VeChain enables businesses to digitize their assets, creating digital representations on the blockchain that can be efficiently managed, monitored and tracked, leading to increased transparency and productivity.

• Unique Two-Token System

VeChain utilizes a unique two-token model consisting of the VeChain Token (VET) and the VeThor Token (VTHO). The VET acts as a store of value that provides access to the services and features of the VeChain platform, while the VTHO is used to pay transaction fees within the network. This model allows users to manage digital assets securely and transparently on the VeChain platform.

• Manage the Supply Chain

VeChain simplifies supply chain management by providing product tracking, monitoring, quality verification, and inventory management services. The platform's distributed network of devices connected through IoT integration enables real-time data sharing and analysis, resulting in greater supply chain efficiency and visibility.

• Governance and Economic Model

To provide a secure and transparent supply chain management platform, VeChain has designed an economic model and governance system. The VeChain Foundation and Steering Committee manage and develop the platform, as well as oversee the network. The use of VET and VTHO tokens incentivizes network participation and provides users with passive income through Staking, as well as access to premium services on the platform.

• Mass Adoption

VeChain has the potential to be a game-changer in industries as diverse as logistics, anti-counterfeiting, and healthcare. By digitizing assets and integrating IoT technology, it can enhance supply chain transparency and traceability, creating a safer and more efficient ecosystem. VeChain has partnered with various companies and organizations, including Walmart China. Walmart has implemented blockchain in its food supply chain to improve transparency and efficiency.

Through blockchain, Walmart can track food from farm to store in real time, allowing it to identify and address issues quickly. The use of blockchain technology in the food industry has the potential to reduce waste, increase food safety and, of course, improve efficiency.

- Krutik Naik, PGDM 2023-25, OPS & SCM

A CRUCIAL MODERN BUSINESS STEP

In recent years, the concept of sustainability has transitioned from being a buzzword to an essential pillar of business operations. The intersection of business and environmental responsibility, the focus on sustainability in procurement practices has become a compelling area of interest. The procurement process, traditionally centred on obtaining goods and services at the lowest cost, has undergone a paradigm shift. It now requires a holistic approach that considers the environmental, social, and economic impacts of purchasing decisions.

Procurement, often considered the gateway to the supply chain, holds immense power to drive sustainability initiatives across industries. Adopting sustainable procurement practices involves integrating environmental and social considerations into supplier selection, contract negotiation, and ongoing supplier management. By prioritizing suppliers with eco-friendly manufacturing processes, ethical labour practices, and a commitment to reducing their carbon footprint, businesses can significantly influence their environmental impact. One of the primary challenges in implementing sustainable procurement practices lies in balancing sustainability goals with cost-effectiveness.

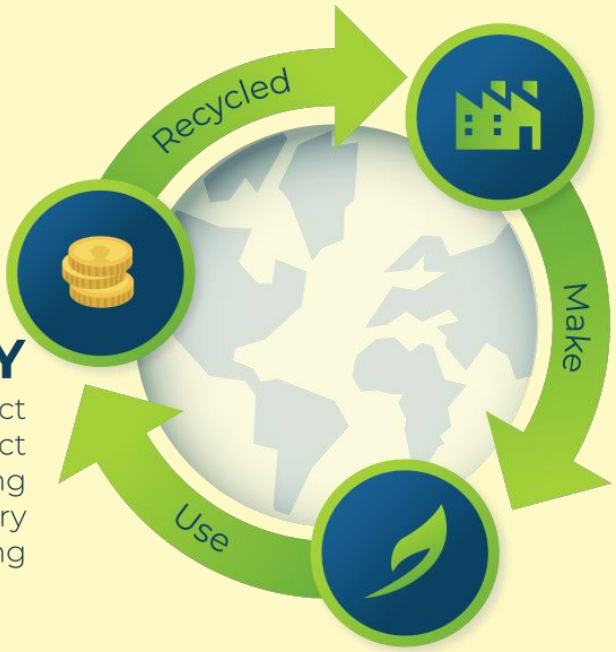
Many assume that embracing sustainability comes at a higher cost. However, this mindset fails to consider the long-term benefits and cost savings associated with sustainable procurement. Investing in sustainable suppliers can lead to reduced waste, increased efficiency, improved brand reputation, and access to new markets that prioritize environmentally responsible businesses.

Technology plays a pivotal role in revolutionizing sustainable procurement. The advent of blockchain, artificial intelligence, and big data analytics offers tools to track and trace supply chains, ensuring transparency and accountability. These technological advancements enable businesses to assess supplier performance accurately, identify areas for improvement, and mitigate risks associated with unsustainable practices.

Furthermore, collaboration and partnerships within and beyond the industry are vital for driving sustainable procurement initiatives. Engaging with suppliers, industry peers, NGOs, and governmental bodies can foster knowledge sharing, best practices, and the development of industry standards that promote sustainability.

India, known for its diverse industries, faces substantial challenges in balancing economic growth with environmental conservation. One significant aspect where sustainability can make a profound impact is procurement - the process of sourcing goods and services. The integration of sustainable practices in procurement not only benefits the environment but also contributes to long-term business viability and social well-being.

Sustainable Procurement Strategy



01 SOCIETY
Health and safety
Rights of the employees
Self-empowerment & Learning
Diversity, equality & inclusion

02 ENVIRONMENT
Circular Resources
Carbon Footprint
Energy Efficiency
Waste & Land Use
Hazardous Materials

03 ECONOMY
Fair Business conduct
Local economic impact
Consumer wellbeing
Anti-Bribery
Money Laundering

One notable example of sustainable procurement in Indian industries is the adoption of eco-friendly packaging materials in the fast-moving consumer goods (FMCG) sector. Companies like Hindustan Unilever Limited (HUL) have shifted towards biodegradable packaging materials, reducing their environmental footprint. This initiative not only aligns with global sustainability goals but also resonates with the environmentally conscious Indian consumer base.

Moreover, the Automobile industry in India is increasingly embracing sustainable procurement by sourcing raw materials ethically. Tata Motors, for instance, has committed to responsibly sourcing metals like aluminium and steel, ensuring they are obtained through suppliers adhering to fair labour practices and environmentally sound mining methods. This move not only emphasizes ethical procurement but also creates a ripple effect across the supply chain, encouraging suppliers to adopt sustainable practices. Furthermore, renewable energy procurement is gaining traction in India's corporate sector. Companies such as Infosys and Wipro are investing heavily in renewable energy sources to power their operations. By integrating renewable energy procurement strategies, these companies not only reduce their carbon footprint but also set a benchmark for other industries, illustrating the feasibility and benefits of sustainable energy adoption. Implementing sustainable procurement practices comes with its challenges, including higher initial costs and the need for supplier collaboration. However, the long-term benefits outweigh these challenges. Businesses engaging in sustainable procurement enhance their brand reputation, mitigate risks associated with supply chain disruptions, and comply with evolving regulatory standards, ultimately leading to increased competitiveness and resilience. As future business leaders, it is imperative to champion sustainable procurement practices. Embracing innovation and technology, fostering supplier partnerships, and advocating for regulatory support are key strategies to overcome hurdles in this journey towards sustainable procurement. In conclusion, the integration of sustainable procurement practices within Indian industries is not merely an ethical choice but a strategic imperative. By drawing inspiration from successful initiatives like eco-friendly packaging in FMCG, ethical sourcing in the automobile sector, and renewable energy adoption in IT, businesses can create a harmonious balance between economic growth, environmental conservation, and social responsibility, thus paving the way for a sustainable future. Remember, the journey towards sustainability begins with every procurement decision made today. As future managers, let us steer Indian industries towards a more sustainable and prosperous tomorrow.

- Omkar Talekar, PGDM 2023-25, OPS & SCM

DRONE DELIVERY

Pioneering the Future of Swift and Seamless Logistics

Drone delivery services are no longer science fiction. In recent years, these futuristic transport systems have moved from experimental projects to real operations, changing the way goods are received. From food and medicine to important documents and even coffee, drones are taking to the skies, promising faster delivery times, lower costs and greater accessibility

Speed Advantages: Drones can navigate congested cities and bypass geographic barriers to deliver packages in a fraction of the time it takes for traditional ground delivery. Imagine receiving your online order in minutes instead of hours!

Cost-effectiveness: Operating drones is often cheaper than maintaining delivery vehicles. This means potentially lower delivery costs for consumers and better profitability for businesses.

Accessibility: Drones can reach remote and underserved areas where traditional delivery methods are impractical or unavailable. It opens up new ways to connect communities and ensure that everyone has access to essential products and services.

Environmental benefits: Electric drones produce no emissions, which contributes to a cleaner environment and reduces our dependence on fossil fuels. The Future of Drone Delivery

Here are some emerging trends in drone delivery:

Food and grocery delivery: Companies like Domino's Pizza and Uber Eats are already experimenting with drone food delivery. This could become an important drone delivery market in the future.

Medical Supply Delivery: Drones are used to deliver medical supplies to remote areas and people in disaster areas. This could have significant implications for health care.

Small packages: Companies like Amazon plan to use drones to deliver small packages to customers and #039; homes It could revolutionize the way we shop online.

Drone delivery is still in its infancy, but it could change the way we live and work. As technology continues to advance and regulations are introduced, we can expect drone delivery to become an increasingly common part of our daily lives.

The Current Landscape of Drone Delivery

Several major players are currently vying for dominance in the drone delivery market. Here are a few notable examples:

Amazon Prime Air: The e-commerce giant has been aggressively testing drone delivery in various locations worldwide. They recently announced plans to expand their operations to new cities in the United States and Europe.

CAGR 44.2%

$9.51 Billion
Market Size in 2027

$520 Million
Market Size in 2019

Duration Outlook

- Short Duration (<25 kilometers)
- Long Duration (>25 kilometers)

Range Outlook

- Short Range (<25 kilometers)
- Long Range (>25 kilometers)

Package Size Outlook

- < 2 kilograms
- 2.5 kilograms
- > 5 kilograms

UPS Flight Forward: UPS is focusing on drone delivery for medical supplies and urgent shipments. They have partnered with healthcare organizations to deliver essential items, such as blood and tissue samples, in time-sensitive situations.

Wing (Alphabet): This subsidiary of Google's parent company, Alphabet, has been conducting drone delivery trials in Australia and Finland. They specialize in delivering small packages, such as food and coffee, directly to customers' backyards.

Challenges and the Road Ahead

Despite the exciting potential, drone delivery still faces several challenges. Safety concerns regarding midair collisions, noise pollution, and privacy issues need to be addressed before widespread adoption can occur. Additionally, regulatory frameworks and airspace management systems need to be developed to ensure safe and efficient drone operations.

However, the future of drone delivery looks promising. As technology advances and regulations evolve, we can expect to see these flying couriers become an increasingly common sight in our skies. Imagine a world where you can order anything you need and have it delivered to your doorstep within minutes, all thanks to the magic of drones.

The ethical considerations of drone delivery, such as the potential for job displacement and misuse of the technology. The role of artificial intelligence and machine learning in optimizing drone delivery routes and ensuring safety. The potential for drone delivery to revolutionize not only the delivery industry but also other sectors, such as healthcare and disaster relief. I hope this provides a good starting point for your article on emerging drone delivery services. Feel free to expand on these points and add your own insights and perspectives. Additionally, exploring the environmental impact of widespread drone delivery, including considerations such as energy consumption, carbon footprint, and the implications for sustainability. Moreover, examining the regulatory challenges and privacy concerns associated with the increasing integration of drones into everyday life will provide a comprehensive overview of the multifaceted landscape surrounding emerging drone delivery services.

- Krutik Naik, PGDM 2023-25, OPS & SCM

RESILIENCE

Unveiling China's Resilient Supply Chain Triumph

China's supply chain played a pivotal role in global flow of goods and services. Before 2020, China was known as the "world's factory" as China played a crucial role in manufacturing and exporting a wide range of products. The country had a highly efficient and integrated supply chain, vast manufacturing capabilities, skilled workforce, and infrastructure. Factory Closure, to contain the virus China impose strict lockdown, leading to temporary closure of factories. This disrupted the production and distribution of goods, causing ripple effects throughout the supply chain. Labour Shortage, Lockdown and quarantine restricted the movement of workforce this affected the workforce capacity to meet production demands, further disrupting the supply chain. Disruption in Transportation, Reduced air travel and disrupted shipping routed led to delays in transportation of raw material and finished goods. Global Demand Fluctuation, while there was increased in the demand of medical supplies and essential goods, on the other hand travel, tourism, and hospitality experienced downturn. Supply chain Complexity: many companies rely heavily on the on the single – source supplier often located in China. When these suppliers were affected by the pandemic it created a domino effect, disrupting entire supply chain. These Factors Contributed to the Supply Chain Disruption Unemployment and Labour Market Challenges, factory closure and reduced production led to layoffs and unemployment in many regions, creating challenges in labour market. Increased Cost: Company Faced increased cost related to finding alternative supplier, expediting shipments, and implementing new logistics solutions to overcome the supply chain. Shift in the consumer behaviour, online shopping and e-commerce witnessed a surge and consumer became more conscious of supply chain vulnerabilities. These are the Global Consequences of China's Supply Chain Disruption Economic Contraction, the closure of factories, reduced production and disruption in trade contributed to slowdown in the GDP growth. Job losses and Unemployment, the temporary closure of factories reduced production capacity led to job losses and increased unemployment in various sectors. Impact on Export Driven Industries, China heavily relies on exports. The disruption in the supply chain affected export-driven industries such as manufacturing, electronics and textiles leading to the decline in the export volume. Global reputation, pandemic related issue led to questions about transparency and communication, impacting perceptions of China role in global trade and its ability to manage international supply chain effectively. These are some of the major Challenges Faced by China the Chinese government implemented measure to mitigate the economic impact including fiscal stimulus packages, financial support for affected industries and policy adjustment to support employment. Acceleration in technology adoption, companies enhanced automation, digitalization, and remote work capabilities to improve resilience. Policies adjustment, the Chinese government implemented policies adjustment, this includes measure to stabilize employment, support small and medium size Enterprises (SMEs) and promote economic recovery. Focus on Resilience and Stability, China began emphasizing efforts to create a more resilient and flexible economy and industrial structure, like Dual Circulation Strategy, prioritizing domestic consumption and innovation, building strategic stockpiles, and enhancing Logistics. These are the essential steps taken by China to overcome supply chain challenges.

- Mohit Kumar, PGDM 2023-25, OPS & SCM

GUESTS OF HONOUR

DEPARTMENT OF OPERATIONS AND SUPPLY CHAIN MANAGEMENT

E-Commerce in Supply Chain Management

Mr. Anurag Yadav, Founder: KRITS Automotive

The Institute for Technology and Management, Kharghar, showcased its dedication to fostering a comprehensive learning environment by hosting a compelling guest lecture centered on the theme of 'E-COMMERCE IN SUPPLY CHAIN MANAGEMENT' for the esteemed operations and Supply Chain batch of 2023-25. The engaging session featured Prof. Anurag Yadav, an accomplished industry expert, whose extensive journey through the realms of operations and supply chain management added invaluable insights to the discourse.

Prof. Yadav, drawing from his rich background, elucidated the dynamic landscape of supply chain management. With a remarkable professional trajectory that includes pivotal roles in distinguished companies such as Shriram, BOSCH, BAJAJ, VOLVO, and SKODA, Mr. Yadav brought a wealth of practical experience to the lecture. The transition from being a Sales Officer to establishing his own venture, KRITS, in 2023 highlighted the diverse and multifaceted nature of his expertise, providing a real-world context to the operational intricacies discussed during the session.

The lecture meticulously explored the evolution of commerce, adeptly distinguishing between traditional and E-commerce paradigms. Prof. Yadav's interactive approach encouraged students to actively participate by posing questions, fostering a thorough understanding of the subject matter. This engagement not only enhanced the learning experience but also demonstrated the Institute's commitment to providing a holistic education that combines theoretical knowledge with practical application. The commendable initiative taken by the Department of Operation and Supply Chain Management in organizing this enlightening session underscored the institution's dedication to exposing students to real-world industry scenarios. By serving as a valuable platform, the guest lecture effectively bridged the gap between theoretical concepts and their practical implementation. In essence, the event proved to be a significant milestone in equipping students with the nuanced understanding required for navigating the intricate landscape of E-commerce in Supply Chain Management.

Service Operation Management

By Prof. Eddison Cardozo, Assistant Professor, ARMIET, Mumbai

In a recent guest lecture organized by the Department of Operation & Supply Chain Management at ITM Business School, Kharghar, students of the batch (2023-25) were treated to a comprehensive exploration of “Service Operations Management.” The session, held on 18th December 2023 and led by esteemed guest speaker Prof. Eddison Cardozo, shed light on the intricacies of service operations within the broader context of supply chain management.

Prof. Cardozo, currently an Assistant Professor at ARMIET College, Mumbai, brought to the table a wealth of experience spanning over 19 years. His diverse roles, ranging from Operations Executive to CSA-Sales across the Middle East and South Asia, provided students with a holistic understanding of the subject matter. Additionally, his contributions to 12 research papers, with 6 listed in UGC CARE, showcased his commitment to academic excellence.

The lecture commenced with an introduction to operations management, followed by a dive into the fundamentals of service operations management. Prof. Cardozo elucidated on the types and major functions of service operations, drawing insightful comparisons between service and production operations. Notably, he predicted a significant 20% growth in the service industry over the next five years, emphasizing the sector's burgeoning importance.

The session culminated in an engaging activity that challenged students' understanding and application of the concepts discussed. Prof. Cardozo's interactive approach fostered a dynamic learning environment, allowing students to actively participate and grasp the practical nuances of service operations.

Post-lecture, Prof. Cardozo took the initiative to address students' queries, providing clarity on various aspects of service operations management. The Department of Operation & Supply Chain Management's commendable effort in organizing this insightful session underscores its commitment to enhancing students' knowledge and industry exposure.

In conclusion, the guest lecture proved to be an enriching experience for the Operation & Supply Chain Management Batch (2023-25), offering valuable insights into the evolving landscape of service operations. Prof. Cardozo's expertise, coupled with the department's proactive approach, contributed to the success of this educational initiative.

Inventory Management

By Prof. Rajiv Wad, Ex-HOD, NCRD Sterling Institute of Management Studies

On the 22nd of August 2023, ITM Business School hosted a guest lecture on inventory management for its PGDM students. The distinguished speaker for the session was Mr. Rajiv Wad, former Head of Department at NCRD's Sterling Institute of Management Studies. The lecture delved into the strategic control and monitoring of goods and materials within the supply chain, emphasizing the critical role of inventory management in achieving a balance between costs, demand, and customer service.

The significance of inventory management lies in its impact on a company's assets, capital, and resources. Effectively managing inventory ensures that organizations maintain the right amount of stock at the right time to meet customer demand while minimizing holding costs, stockouts, and obsolescence.

The lecture commenced with an overview of inventory components, types, and methods of calculation. Mr. Rajiv Wad then delved into the intricacies of inventory management, explaining the Economic Order Quantity (EOQ) technique with real-world examples and numerical illustrations.

Mr. Wad addressed the challenges inherent in inventory management, such as demand uncertainty, lead time variations, and the bullwhip effect. Collaborative forecasting, effective communication with suppliers, and the implementation of agile supply chain strategies were highlighted as key strategies to mitigate these challenges.

In conclusion, inventory management emerges as a dynamic discipline requiring a delicate balance between supply and demand, cost, and service. By grasping key principles and adopting modern techniques, businesses can optimize inventory management to enhance efficiency, profitability, and gain a competitive edge in the complex global marketplace. The guest lecture provided invaluable insights, equipping PGDM students at ITM Business School with the knowledge and skills essential for navigating the challenges of inventory management in the contemporary business landscape.

Inventory Management

By Prof. Rajiv Wad, Ex-HOD, NCRD Sterling Institute of Management Studies

Total Quality Management

By Mr. Anand Gupta, Associate GM at Navio Shipping Private Limited, Mumbai

On the 8th of August 2023, Mr. Anand Gupta, Associate GM at Navio Shipping Private Limited, Mumbai, delivered an enlightening session at ITM Business School, Kharghar. The focus of the session was a comprehensive overview of Total Quality Management (TQM) implementation in Toyota Corporation, highlighting its transformative impact on overall performance and operations.

Mr. Anand Gupta guided us through the principles of Total Quality Management, emphasizing the application of quality management principles throughout an organization to achieve continuous improvement and customer satisfaction. Key areas of discussion included addressing intangible process impacts, optimizing processes, and embracing the Kaizen philosophy for continuous improvement. We delved into the key practices that have contributed to Toyota's TQM success. These included executive commitment, active participation across all organizational levels, the adoption of the Toyota Management System (TMS), integration of quality control at all production levels, and the decentralization of decision-making through policy deployment.

Benefits of TQM in Toyota:
Through Mr. Gupta's insights, we explored the tangible benefits of TQM implementation at Toyota, such as customer-focused strategies, enhanced operational efficiency, adaptability to changing demands, and a reduction in intangible process impacts. The Toyota Production System (TPS), a cornerstone of TQM at Toyota, was discussed in detail, focusing on just-in-time production and waste reduction.

Challenges of TQM Implementation:
Mr. Gupta shed light on the challenges faced by Toyota in TQM implementation, including resource constraints, cultural and structural barriers affecting communication, and the imperative need for proper training and leadership commitment. His analysis underscored the critical importance of resources, cultural alignment, and effective leadership in the successful implementation of TQM.

7 Principles of TPS:

Under Mr. Anand Gupta's tutelage, we explored the seven principles of the Toyota Production System (TPS), including reducing setup time, small lot production, quality at the source, pull production, leveling out the workload, building a culture of problem-solving, and fostering a learning organization through relentless reflection and continuous improvement.

Conclusion:

In conclusion, Mr. Anand Gupta's session provided us with a deep understanding of Toyota's success in TQM implementation. His teachings emphasized the significance of commitment, active participation, and lean manufacturing practices. Through Mr. Gupta's guidance, we gained valuable insights into the challenges faced by Toyota and the enduring commitment to TQM principles for sustained innovation and competitiveness. This session was a valuable learning experience for both students and professionals, offering a practical understanding of TQM in a real-world context

Inventory Management

By Dr. Soumya Vaithinathan

On February 21, 2023, ITM Business School had the privilege of hosting Dr. Soumya Vaithinathan, an esteemed expert in inventory management. The guest lecture, tailored for students specializing in Operations and Supply Chain Management, provided a comprehensive exploration of the intricacies of inventory management and its pivotal role in optimizing business operations. Dr. Vaithinathan elucidated that inventory management involves overseeing the entire journey of goods, starting from manufacturing to reaching the end customers. This process includes meticulous tracking of inventory levels, ensuring timely availability, and minimizing associated costs.

Key takeaways:

Types of Inventory:

The lecture differentiated between two primary types of inventory - raw materials and finished goods. Raw materials encompass components necessary for production, while finished goods represent the end products ready for sale.

Costs Associated with Inventory Management:

Dr. Vaithinathan shed light on the various costs linked with inventory management, including ordering costs, carrying costs, and stockout costs. Ordering costs pertain to expenses incurred in placing orders, while carrying costs include storage-related expenses. Stockout costs encompass the repercussions of running out of inventory, such as lost sales and customers.

Effective Inventory Management Techniques:

The lecture emphasized techniques that businesses employ to enhance inventory management, such as just-in-time (JIT) inventory, economic order quantity (EOQ), and safety stock. These techniques contribute to cost reduction, improved customer satisfaction, and increased profitability.

Economic Order Quantity (EOQ):

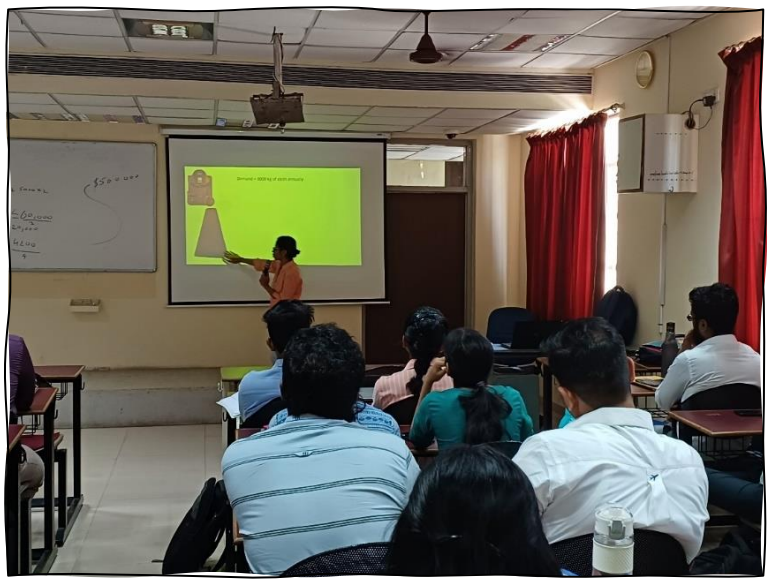
Dr. Vaithinathan introduced EOQ as a formula for determining the optimal order quantity, considering both ordering and carrying costs. This method aids businesses in minimizing total inventory costs.

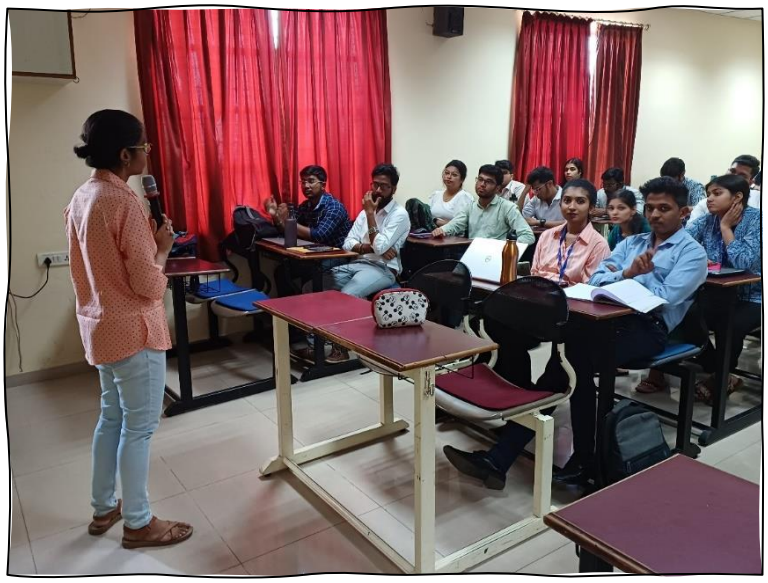
Safety Stock:

Safety stock, as explained by the speaker, serves as a reserve inventory that businesses maintain to meet demand even in the face of unexpected supply chain disruptions.

Conclusion:

Dr. Soumya Vaithinathan's guest lecture left an indelible mark on the students of Operations and Supply Chain Management at ITM Business School. The insights shared underscored the critical importance of effective inventory management in the realm of supply chain management. Attendees gained a nuanced understanding of the associated costs and learned techniques to optimize inventory management, ensuring its availability when needed. The lecture served as a valuable addition to the academic journey, equipping students with practical knowledge crucial for their future roles in the dynamic business landscape.





Lean Six Sigma

Mr. Parag Khedkar, Director at Creativentions

The Lean Six Sigma-Green Belt Certification Course conducted at ITM Business School from 1st to 4th February 2024 was a significant initiative aimed at enriching the knowledge and skills of students from various disciplines, including Operations & SCM, RMM, and Marketing. Facilitated by Mr. Parag Khedkar, Consultant-Business Excellence at Creativentions, the course delved into the intricacies of Lean and Six Sigma methodologies, offering students a holistic perspective on process improvement and quality management.

Key Takeaways:

1. Lean Manufacturing:
The lecture on Lean Manufacturing not only covered its core principles but also delved into real-world applications and success stories. Students were given insights into how lean principles have been implemented across diverse industries, leading to increased productivity, reduced lead times, and improved cost-effectiveness. The emphasis on respecting people and encouraging their active involvement resonated with the course's commitment to holistic organizational improvement.

2. Six Sigma Methodology:
The Six Sigma portion of the course provided a comprehensive understanding of the DMAIC process. Practical examples and case studies were integrated to illustrate how statistical analysis and data-driven decision-making contribute to achieving the goal of producing no more than 3.4 defects per million opportunities. The significance of continuous improvement in sustaining quality gains was underscored.

3. The 4P Model of Lean:
The 4P model was explored in detail, with a focus on its holistic approach to lean production. Real-world scenarios were presented to showcase how organizations can simultaneously enhance their processes, engage their workforce, measure performance metrics, and adopt a problem-solving mindset. The model's alignment with continuous improvement strategies was highlighted.

4. The Eight Wastes of Lean:
The eight wastes of lean, represented by DOWNTIME, were analyzed in depth, with specific attention given to their applicability beyond manufacturing. The discussion extended to how these wastes could be identified and eliminated in various processes, including services. The aim was to instill a mindset among students to constantly seek out and eliminate inefficiencies.

5. 5S Method:
The 5S method's application was illustrated through case studies, emphasizing its simplicity and effectiveness in enhancing workplace efficiency. The focus on creating standardized procedures for sorting, ordering, cleaning, and maintaining the workspace resonated with the course's broader goal of sustained improvement.

6. Just-In-Time (JIT):
JIT's implementation challenges and benefits were discussed, with a spotlight on the need for collaboration and communication across the supply chain. Real-world examples of successful JIT systems were explored, providing students with insights into how this strategy can lead to not only operational efficiency but also cost savings and improved customer satisfaction.

7. Poka-yoke:
The poka-yoke technique's integration into quality management systems and its role in preventing errors and defects were highlighted. Practical demonstrations showcased how this method contributes to creating error-proof processes and enhancing overall product or service quality.

8. Kanban and Kaizen:
The synergy between Kanban and Kaizen was explored, emphasizing their collaborative role in promoting continuous improvement and effective workflow management. The visual representation of work in Kanban and the philosophy of small, incremental changes in Kaizen were emphasized as key components of Lean and continuous improvement.

9. Toyota 3M Model:
The Toyota 3M Model, focusing on waste elimination through Muda, Mura, and Muri, was presented as a crucial aspect of the Toyota Production System. The practical application of this model in identifying and eliminating inefficiencies across different stages of the production process was discussed.

Conclusion:

The Lean Six Sigma-Green Belt Certification Course at ITM Business School emerged as an immersive and insightful program that not only equipped students with theoretical knowledge but also provided practical insights through industry professionals. The course's success lay in its ability to seamlessly blend academic concepts with real-world applications, ensuring that students not only understand the methodologies but can also apply them in diverse organizational contexts. The commitment to fostering a mindset of continuous improvement and efficiency enhancement was evident throughout the course, making it a pivotal learning experience for the participating students. The practical skills acquired during the course are poised to empower them as they step into the dynamic realms of operations, supply chain, and marketing.

QCFI COMPETITION

DEPARTMENT OF OPERATIONS AND SUPPLY CHAIN MANAGEMENT

Triumph at QCFI

In a resounding success, 4 students from the Operations & Supply Chain Management Batch of 2022-24 recently excelled at the Quality Control Forum of India (QCFI) competition, securing two gold and two silver certificates. QCFI, known for promoting quality practices, provides a platform for showcasing prowess in quality control.

The winning projects demonstrated innovative approaches to quality control, reflecting the students' ability to analyze processes, identify areas for improvement, and implement effective solutions. These achievements not only attest to ITM Business School's commitment to academic excellence but also highlight its dedication to practical application.

ITM Business School's triumph at QCFI celebrates the dedication and hard work of its students, reinforcing the institution's commitment to fostering excellence in quality management. It serves as an inspiration for future students to strive for greatness in their academic and professional endeavors.

Heartiest congratulations to Aman Ade, Sudip Paul, Uddhav Salvi and Parth Panchal!

Quality Circle Forum of India

Mumbai Chapter

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on 30th Sept. and 1st Oct. 2023 at Zaverben Popatlal Sabhagraha, Ghatkopar, Mumbai

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INDUSTRIAL VISIT

DEPARTMENT OF OPERATIONS AND SUPPLY CHAIN MANAGEMENT

Unlocking the Dynamics of Jawaharlal Nehru Port: A Glimpse into India's Seaport Marvel

A recent field visit to the Jawaharlal Nehru Port Authority (JNPA) provided a profound insight into the intricate operations of India's largest container port located in Nava Sheva. The excursion was aimed at unraveling the complexities of port management, with a particular focus on berths and the crucial role of cranes in cargo handling.

Key Learnings:

Terminals Overview:

JNPA boasts five operational container terminals, each serving a unique purpose. From the Nhava Sheva Free Port Terminals to the newly commissioned Bharat Mumbai Container Terminals Private Limited (BMCT), the port plays a pivotal role in the country's international trade.

Berths and Cargo Handling:

The port's dedicated container terminals feature strategically designed berths equipped with cutting-edge technology. These berths are tailored for efficient handling of containerized cargo, with specialized Liquid Cargo Berths catering to oil and chemical shipments.

Cranes at Work:

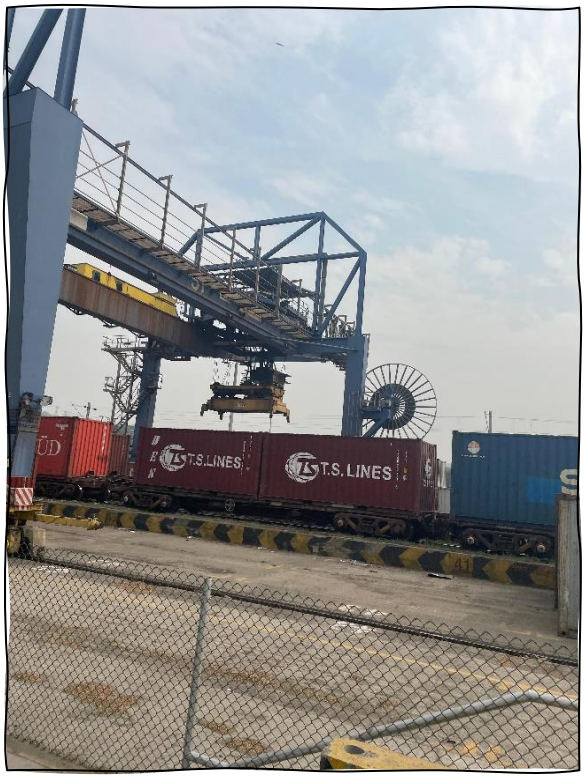
Witnessing various crane types in action, such as the Rail Mounted Quay Crane (RMQC), Rail Mounted Gantry Crane (RMGC), and Rubber-Tired Gantry Crane (RTGC), provided a glimpse into the precision required in cargo handling. Each crane type serves specific functions, from vessel-side operations to stacking and transporting containers within the terminal.

Expansion Initiatives:

JNPA's forward-thinking approach is evident in its development plans, including a satellite port at Vadhvan and Dry Ports at Jalna and Wardha. These initiatives aim to promote industrialization in the hinterland, further integrating the port into the country's economic landscape.

Conclusion:

The field visit underscored the symbiotic relationship between port operations and the broader supply chain. The efficiency of cargo handling at JNPA is crucial for reducing transit times and ensuring the seamless movement of goods across the extensive supply chain network.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Claim

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TESTIMONIALS

DEPARTMENT OF OPERATIONS AND SUPPLY CHAIN MANAGEMENT

Shane Matthews

Operations & Supply Chain Management Batch of 2022-24

I am incredibly grateful for my transformative journey at ITM Business School pursuing the PGDM in Operations and Supply Chain Management. The program's comprehensive curriculum, expert faculty, and hands-on approach have equipped me with invaluable skills and insights. The supportive learning environment and industry exposure provided by ITM have not only enhanced my academic knowledge but also prepared me for real-world challenges. I am confident that the knowledge gained here will be a cornerstone for my success in the dynamic field of operations and supply chain management. Thank you, ITM, for a truly enriching experience!

Parth Pravin Panchal

Operations & Supply Chain Management Batch of 2022-24

Coming from a family business background, I was pretty clear about choosing Operations & SCM as a specialization as I have always had interest in Machines, the new technologies associated with them, how does a process work so smoothly at a manufacturing plant, and the entire supply chain aspect (export & import). Another reason to choose this specialization was the curriculum, most of the other colleges offer Operations and Supply chain management as a different stream, but here you get exposure to both the areas.

The involvement of NGO internship in the curriculum was such a great experience to have as you get a chance to help the underprivileged & spread happiness among these children. The proper 5-month industry internship program (IIP), where you get the practical exposure of the industry & have a chance to apply the concepts you have learned was also a fruitful experience.

Deep Mehta

Operations & Supply Chain Management Batch of 2022-24

My journey of a PGDM at ITM Business School has been nothing short of transformative. The curriculum's depth provided a well-rounded understanding of management principles, blending theoretical concepts with practical applications. The distinguished faculty, with their rich industry experience, not only imparted knowledge but also instilled a sense of critical thinking and strategic decision-making. The numerous case studies, group projects, and industry interactions were instrumental in honing our problem-solving skills and exposing us to real-world challenges. Beyond academics, the college's commitment to holistic development was evident through various extracurricular activities, leadership programs, and workshops. These experiences not only complemented our academic learning but also enhanced our interpersonal and leadership skills. As I reflect on my journey, I am grateful for the lifelong friendships formed and the enduring impact ITM Business School has had on my personal and professional growth. I extend my heartfelt thanks to the entire ITM Business School community – faculty, staff, and fellow students – for creating an environment that goes beyond traditional education. Thank you, ITM Business School, for an enriching and rewarding post-graduate journey.

Sudip Paul

Operations & Supply Chain Management Batch of 2022-24

Choosing ITM for Operations & SCM specialization was a pivotal decision in my career journey as an Engineer. The program provided an enchanting environment for growth, nurturing, and confidence building. Beyond classroom knowledge, ITM uniquely emphasizes competency building and skill showcasing, making graduates industry-ready.

The distinctive features of ITM, including faculty-led activities, insights from industry experts, and opportunities for certifications like Lean Six Sigma Green Belt, enhance the overall learning experience. As an Automobile Engineer aspiring for a Production Operation role, ITM has been instrumental in connecting with esteemed alumni, gaining valuable industry insights, and preparing for future challenges.

The program's standout aspect is its practical orientation, offering live projects, an Entrepreneurship Cell, NGO internships, and a substantial 5-month industrial internship for unparalleled exposure. The incorporation of a Leadership Lab and a Lifestyle Management lab adds a unique touch, shaping professionals ready to excel in both corporate and personal realms. ITM has truly been the catalyst for my career growth in Operations & SCM.

ARTISTRY

DEPARTMENT OF OPERATIONS AND SUPPLY CHAIN MANAGEMENT

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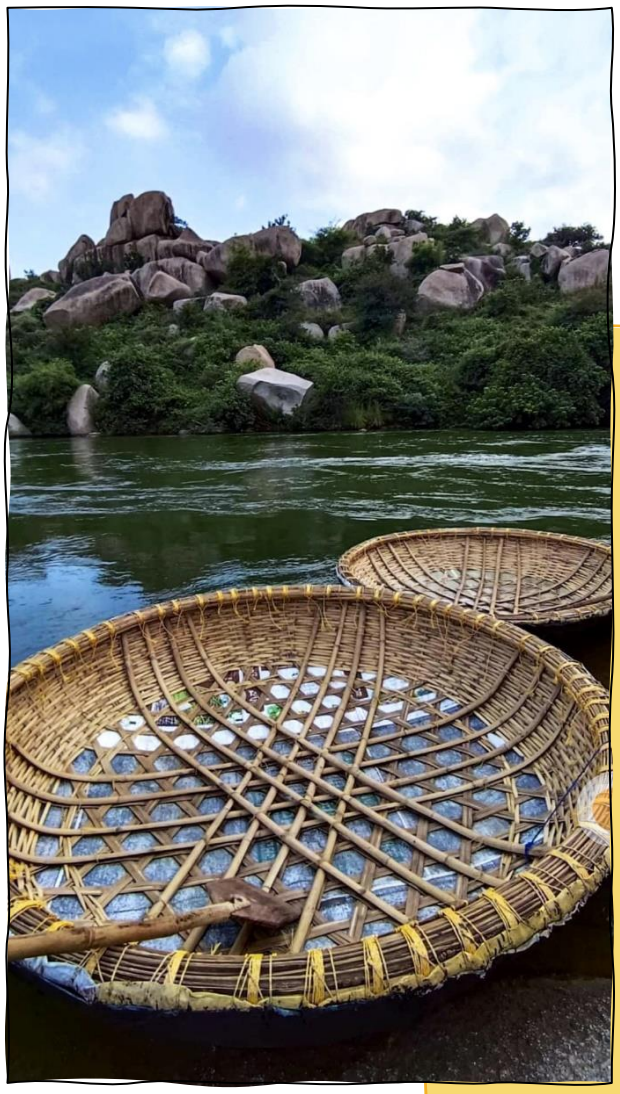

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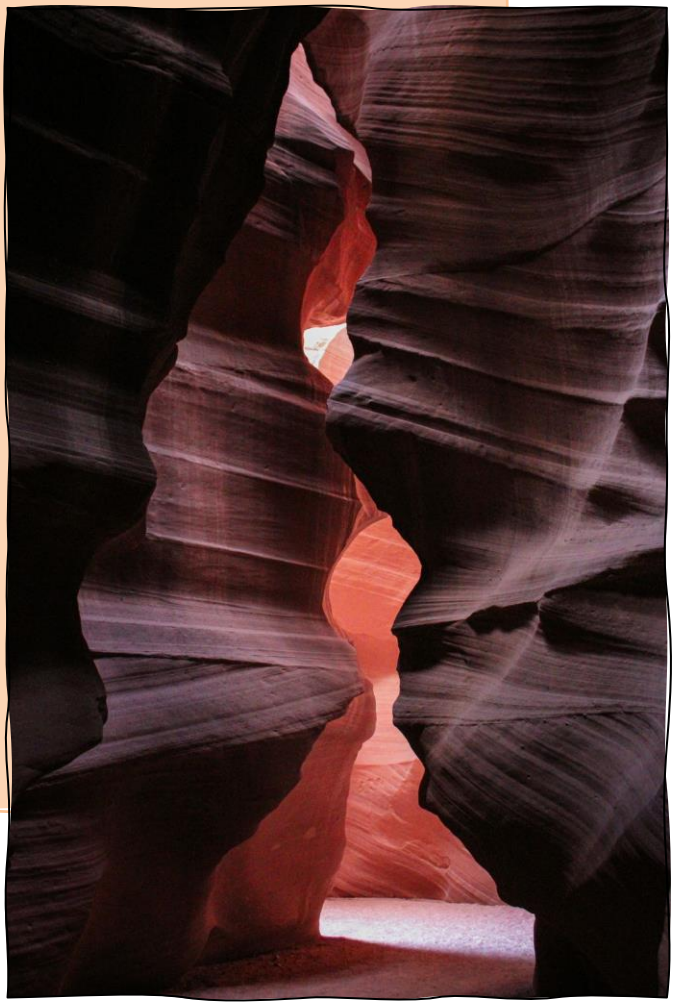
SUBHRAKIRAN MANDAL

VANSHIKA PORAY



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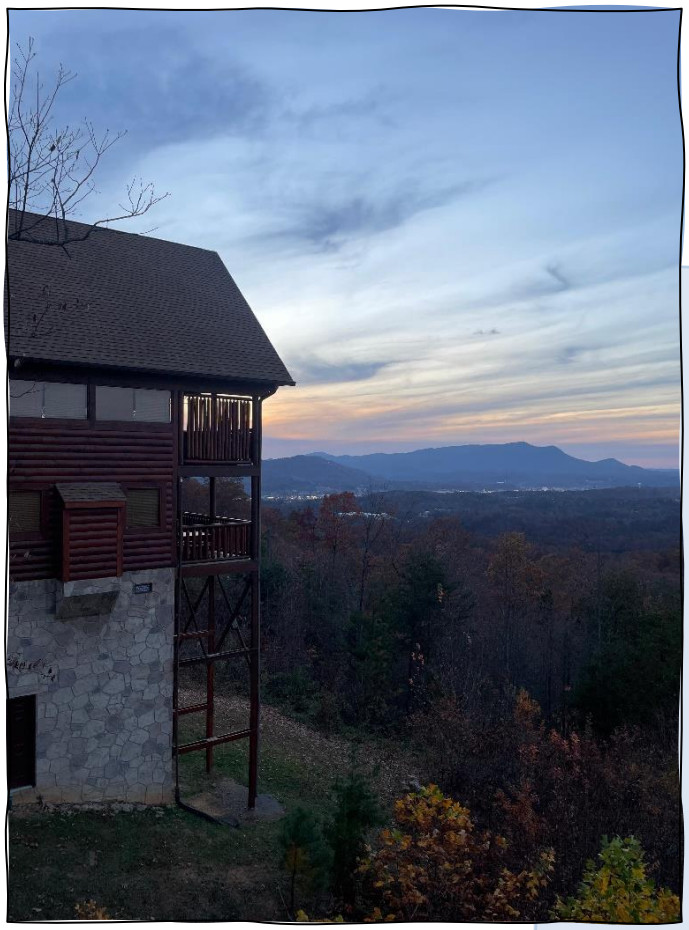

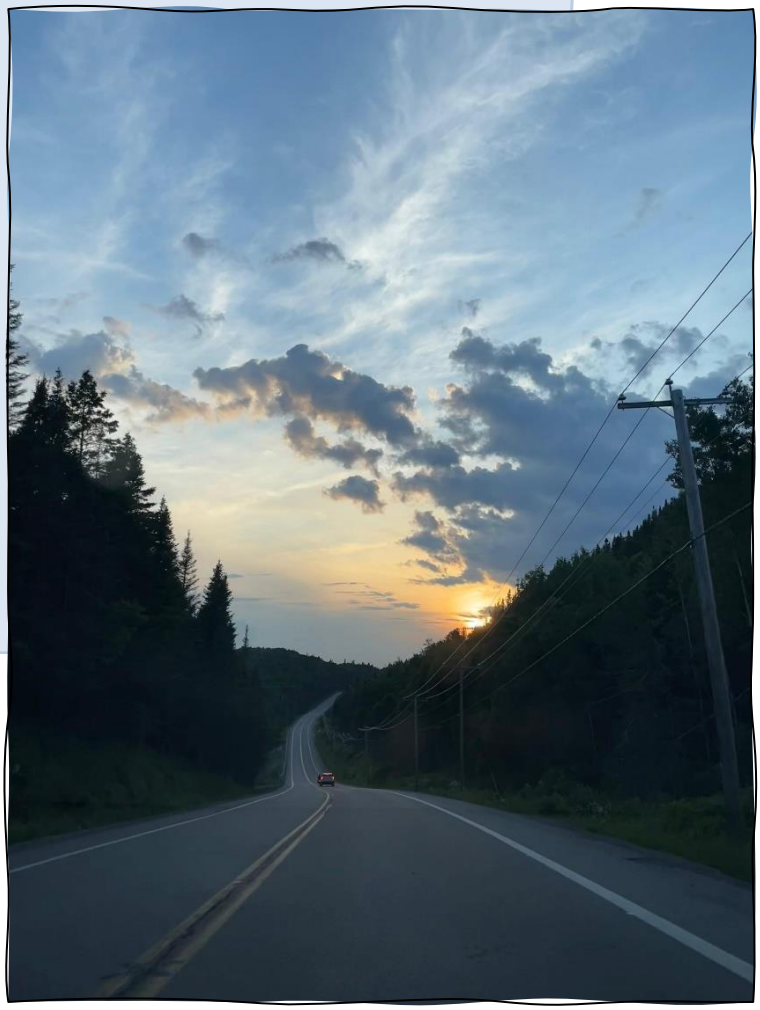

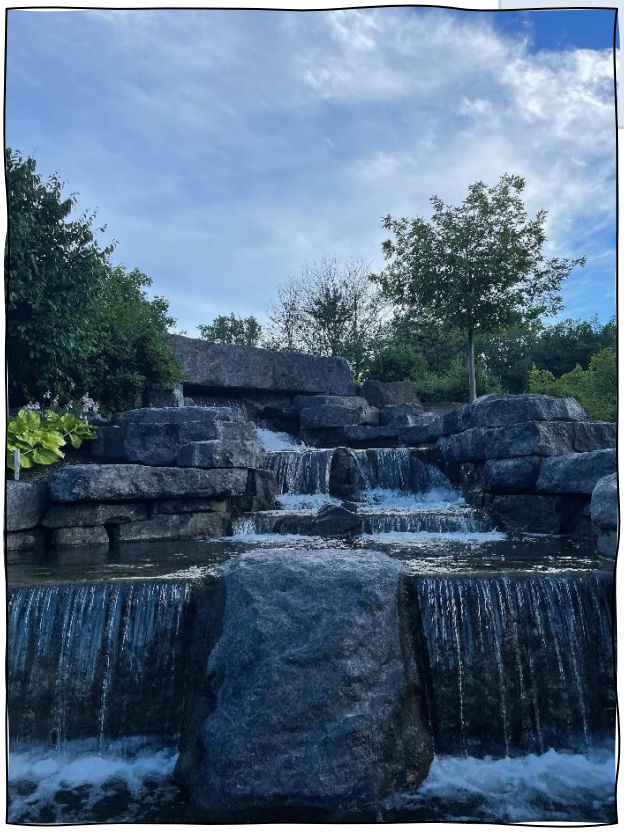

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