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OPs InSights

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MDI MURSHIDABAD | Management Development Institute

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MEET OUR MENTORS

Dr. Debasis Chanda

Dean - Academic and Professor, Operations Management

Dr. Debasis Chanda brings in 20+ years of cross-functional experience in the IT industry and 5+ years of experience in the Engineering Industry. He is also certified as an Enterprise Architect by The Open Group (TOGAF).

His functional expertise also includes Strategy Consulting and Brand Building.

His industry expertise includes Government, Banking, Insurance, Communications, Media & Entertainment, Manufacturing & Logistics, Retail, Publishing, Pharma & Life Sciences. He also has Global Business exposure – Continental Europe, USA, APAC, Middle East and India.

Dr. Sunil Giri

Chairperson - PGDM and Associate Professor, Operations Management

Dr. Sunil Giri did B. Tech (Electrical Engineering), MBA and PhD in Supply Chain Management. He has 14 years of rich experience in management teaching, training & consulting and research. His research interest is Sustainable Supply Chain, QR Logistics, Humanitarian Logistics, Supply Chain visibility, Lean manufacturing, Quality Management. He has taken training session in campus and in company MDP's conducted for executives/officers of various organizations. He has guided various Ph.D Scholars and had his name published in national and international Journals.

ABOUT OUR CLUB

OPCELLENCE: The Operations club of MDI Murshidabad is the platform for students to harness their potential in the field of Operations Management.
The name is derived from the objective we desire to achieve i.e. OPerational exCELLENCE. OPCELLENCE is a hub where innovative ideas are garnered and nurtured for execution. Brainstorming, case discussions, simulation games, publications, quizzes, etc. are some of the activities conducted round the year to instill interest in the field of operations research and operations management.

INSIDE THIS ISSUE

Waiting Line (Queue) Management

- Vimlendu

The waiting line or queue management is a critical part of service industry. It deals with issue of treatment of customers in sense reduce wait time and improvement of service. Queue management deals with cases where the customer arrival is random; therefore, service rendered to them is also random. A service organization can reduce cost and thus improve profitability by efficient queue management.

Waiting Line Problem

Waiting in line is common phenomena in daily life, for example, banks have customers in line to get service of teller, cars queue up for re-filling, workers line up to access machine to complete their job. Therefore, management needs to work on formulae, which will reduce wait time and create delighted customers without incurring an additional cost. Generally, queue management problems are trade off's situation between cost of time spent in waiting v/s cost of additional capacity or machinery.

Finite and Infinite Population

In a waiting line scenario, there are cases of finite population of customers and infinite population of customers. A finite population scenario considers a fixed or limited size of customers visiting the service counter. It also assumes that customer once served will leave the line thus reducing overall population of customers. However finite population model also considers a scenario where the customer after getting served will re-visit the service counter for re-service, leading to increase in finite population. An infinite population theory looks at a scenario where subtractions and addition of customer do not impact overall workability of the model.

Queuing System

To solve problems related to queue management it is important to understand characteristics of the queue. General premise of queue theory is that there are limited resources for a given population of customers and addition of a new service line will increase the cost aspect to the business. A typical queue system has the following:

Arrival Process: As the name suggests an arrival process look at different components of customer arrival. Customer arrival could in single, batch or bulk, arrival as distribution of time, arrival in finite population or infinite population.

Service Mechanism: this looks at available resources for customer service, queue structure to avail the service and pre-emption of service. Underlining assumption here is that service time of customers is independent of arrival to the queue.

Queue Characteristics: this looks at selection of customers from the queue for service. Generally, customer selection is through first come first served method, random or last in first out. As a result, customers leave if the queue is long, customer leave if they have waited too long or switch to faster serving queue.

Bonded Warehouse

- Ishar Alam

A bonded warehouse is a secured building or area that is used to keep imported goods that are awaiting custom clearance. It is generally at a place near a port and is licensed to keep the imported goods until custom duty is paid and clearance is given to them. The bonded warehouses are now present in all developed countries and many developing countries. When goods enter a bonded warehouse, the importer and the warehouse proprietor incur liability under the bond.

The goods kept in the warehouse are safe and hence importer gets the time to arrange for the customs duty meanwhile. The importers are allowed to mix, divide, re-label the goods inside the bonded warehouse, hence it allows to make the goods suitable for marketing. The goods meant for re-export can also be kept in a bonded warehouse without bearing much financial expenditure.

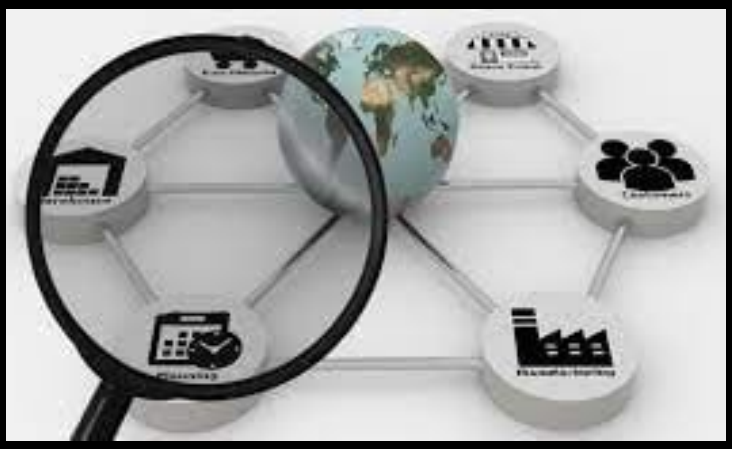
Depending upon the country or region, there are various options for storage of gods in a bonded warehouse. Some of these are-

- Temporary storage premises- These are used for storing goods that enter the customs premises of the EU and await further approval
- Type B customs warehouse- These are public customs warehouse. The administrator has the right to make the warehouse available to anyone who wants to store the goods
- iType C customs warehouse- These are private customs warehouses. Only the administrator of the customs warehouse can store goods in such a warehouse. The warehouse keeper can store goods on behalf of others but he shall remain responsible for customs for the goods stored in such warehouses
- Type D and E customs warehouse- Only the administrator is allowed to store goods in such warehouses. These are strictly private warehouses
- Free warehouse- it is a public bonded warehouse under the control of customs. Anyone can store goods in such warehouses
- Special economic zone- SEZ or a free zone is not a building but a location. It serves similar purposes as a free warehouse.

New Approach to Supply Chain Transparency

- Jessica Singh

Consumer pressure, political tensions, forced labor accusations and new regulations have increased the pressure on companies to share information on their supply chains. Today's supply chains evolved to serve a specific objective - minimize costs. Manufacturing hubs are scattered across the world. Few products originate from a single country; raw materials come from one region, with production done in another.



Few businesses can prove who is in their supply chain (beyond the suppliers they directly contract with) and fewer are capable of staying on top of the business practices adopted by their suppliers. Businesses must embark on a more structured journey to collect information on or from their suppliers. The demands for information will only grow. Knowing your supply chain all the way through to the raw material producer and the ESG details of your suppliers will become a requirement for every business.

Germany recently joined countries such as the UK, Australia, and the Netherlands in the global legislative trend to combat unsustainable supply chain practices by passing its own Supply Chain Due Diligence Act. From 2023 businesses with over 3000 employees have to prove that their supply chains are sustainable and that there are no human rights violations in their supply chains.

Being able to access all the data in one place is powerful – companies can easily look up where a specific item is sourced from, or where it was produced. This knowledge will also help businesses identify inefficiencies in their supply chain. For industries such as fashion and food retail, which are two of the biggest polluters, this would be valuable information. This data can also be shared securely with the entire supply chain to encourage better collaboration and efficiency.

The technology to change this status quo exists today. Platform-based solutions allow businesses to integrate data from multiple sources, with incentives for suppliers to share info, and allowing for external verification.

Technology cannot just help businesses achieve their ESG objectives and meet the growing demands for disclosure, but can also help them stay a step ahead - of their investors, customers, regulators and competitors.

Paperless Warehouses

- Kankan Das

Companies have always used a paper-based warehousing system, but this is beginning to change. More firms are beginning to transition to a paperless warehouse system to accomplish these aims as a result of a combination of technical improvements, the need to reduce waste, general inefficiencies, and overall be more productive.
Nearly 3,000 shipments are transported every second in the global supply chain. Reread that, and by the time you've finished, another 10,000 packages have left the building. There's no way that paper can fully use this type of huge data. Inventory management software (also known as inventory automation software) is now available and will completely transform your business processes.

Warehouse and distribution services that use contemporary technology and automation to streamline warehouse procedures and workflows are referred to as paperless warehousing. It not only improves speed and accuracy, but it also gives you complete visibility into your ecommerce supply chain. For increased flexibility and scalability, firms can outsource logistics to a tech-enabled warehouse.

Paperless warehousing automates routine activities, reducing the need for time-consuming human labour and saving thousands of man-hours. An order picker, for example, can swiftly discover and pick an item to complete an order using an inventory scanner system that can scan and track things using barcodes. By tracking how inventory is doing by SKU at each warehouse site, the warehouse layout and design may be modified utilizing technology to optimize storage and streamline order fulfilment procedures. Supply chain management requires knowing how many units of each product are held at each distribution center.

Retailers can quickly track inventories and view orders by status by deploying paperless warehousing systems. By measuring carrying costs and inventory turnover over time, visibility can also assist cut logistical expenses. Because order data is routinely logged, brands can quickly access previous data and insights to estimate demand, avoid stock outs, and improve customer happiness.

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TEAM OPCELLENCE

BATCH 2020-22

Shikhar Prasad

Bhaskar Saha

Trinadh Koushik Burra

Kriti Chakraborty

Manthan Shrivastava

BATCH 2021-23

Kankan Das

Shubham Mehrotra

Vimlendu Shekhar Mishra

Hazari Ishar Alam

Jessica Singh

Let's turn our Factories to max efficiency level!