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EXCELLENCE

OPs InSights

Official Newsletter of Opcellence, MDIM



MEET OUR MENTORS

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. Debasis Chanda

*Dean - Academic and Professor,
Operations Management*



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.

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Improving the Warehouse Receiving Process

- Jessica Singh

Warehouse receiving operations are a critical part in maintaining the integrity of inventory systems and ensuring the availability of products for customers. Without an effective receiving system, items fall through the cracks, are not counted, do not receive adequate inspection, and fail to provide evidence of problems with vendors that affect profitability.

Accountability is one of the critical aspects of warehouse receiving operations. Each worker must record his or her actions in the context of the overall operations. In this way, problems of miscounts, defective shipments and incomplete deliveries are not overlooked during a hectic delivery day. Changing technology often necessitates a change in the process, in by whom, where, and how long materials are handled before they can pass through the system and be available as regular inventory. Exceptions to the standard process should be eliminated as much as possible to reduce both costs and errors.

Inspection is as important to incoming items as it is to outgoing items since items can be immediately assessed at this point, sufficient time and manpower should be in place for inspection to provide accurate inventory data and report any problems with the vendor or shipper. In this way, inadequate packaging or delays in shipping can be evaluated and addressed, as needed.

An efficient warehouse system will eliminate miscounts and warehousing of defective items that disrupt the ability to keep a sufficient amount of suitable materials on hand. Ensuring the best warehouse receiving process requires both regular examinations of operations to find problem areas, as well as ongoing effort to implement logistics solutions that increase data collection and improve physical systems.

Designing and implementing the most effective systems relies on the collection of the right metrics. These generally include:

Dock to stock time - The total time needed to move materials through the system to usability

Receiving error reporting - Systems should be in place to double check the system through label scans to alert to errors during the warehousing process

Dock utilization - Tracking of the utilization of dock doors, as well as space to ensure maximum efficiency

Supplier shipping problems - Recording errors by the shipper, such as incorrect quantities, the wrong product

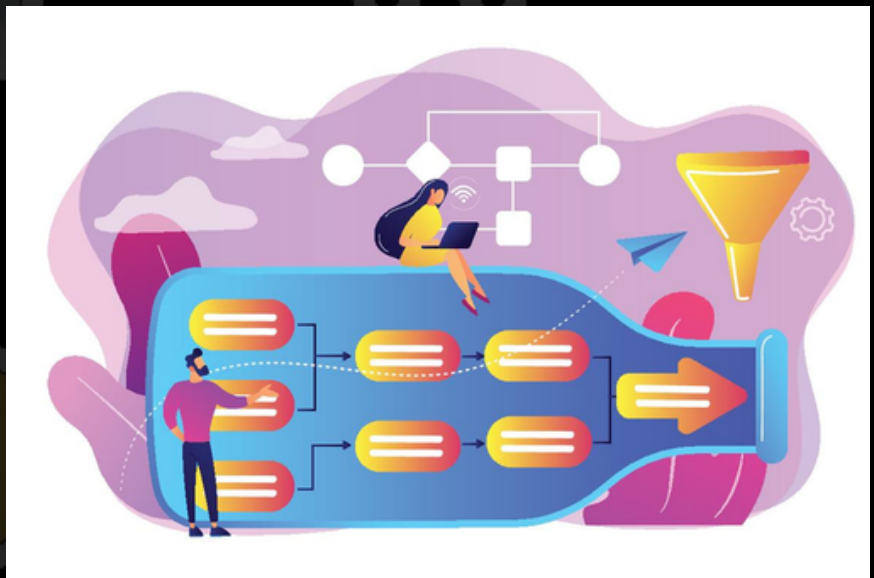


Bottlenecks in manufacturing

- Ishar Alam

At ThroughPut, we define operational bottlenecks in manufacturing as any situation on the factory floor that diminishes productivity. It is time to eliminate this \$10 trillion waste from the global economy using the power of AI-driven analytics. Today, all industrial companies want to increase uptime, reduce operational costs, and boost productivity and throughput. However, bottlenecks in manufacturing are one of the primary reasons why your projects get delayed, budgets burst from the added cost of delays and the whole process becomes unpredictable.

Nearly 40% of industrial output is wasted even before it reaches your customers. Untimely bottlenecks in manufacturing cause a \$12 trillion dent on the global production market and contribute to a major share of this waste. This waste can keep you far away from achieving your operational targets and deeply impact your logistics and **supply chain planning** strategy.



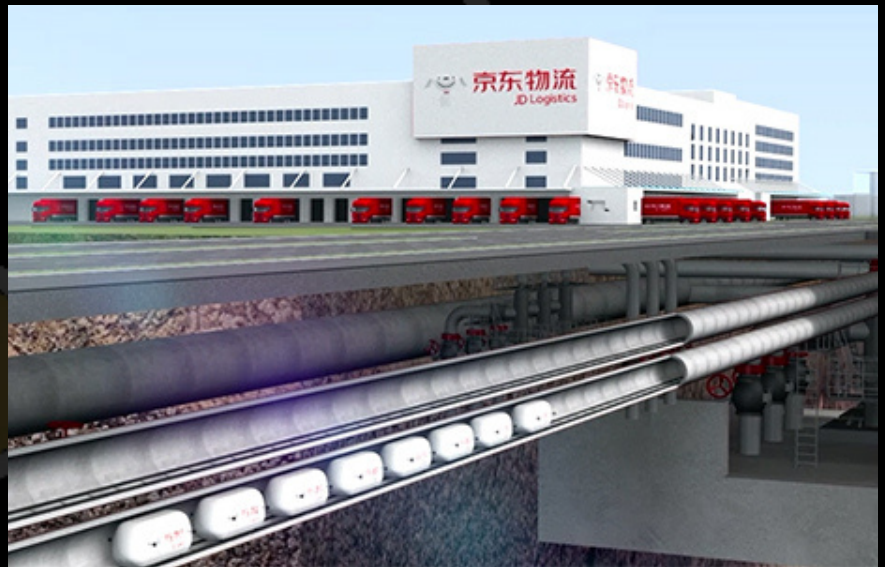
Bottleneck Operation is a process or a step that limits an entire system's capacity to produce at its optimum level that results in clogging productivity, profitability, and growth. This is also called "throughput." Just like the slim neck of a wine bottle that restricts the flow of contents from the bottle at any point in time, an operational bottleneck. So in the context of a factory floor, an operational bottleneck in manufacturing is a work stage that requires more work requests than it can actually process at its maximum throughput capacity. Bottlenecks tend to have different causes and usually have more severe implications in the process industries. In parts manufacturing and assembly, the workers tend to be the rate-limiting factor across various steps, and therefore managing bottleneck operations in manufacturing is often a matter of managing people – by appropriate staffing and task leveling. In process plants, the throughput in most operational steps is limited by equipment capability and not necessarily by labor. And with equipment rather than operating labor being the bottleneck, throughput limitations can't be resolved by bringing in additional labor or by scheduling overtime.

Underground Logistics System (ULS) in China

- Kankan Das

The rapid development of E-commerce and "Internet of Things" technology is promoting total social logistics in China's new urbanization process. For example, the annual growth rate of the express delivery sector has surpassed 50%. A unique advantage of an urban underground logistics system (ULS) is that it is one of the most effective ways to solve urban traffic problems. In China, a new means of freight transportation is required. As a result, ULS is becoming more well-known. Since the 1990s, ULS has piqued the interest of scholars and practitioners in the United States (Rezaie et al., 2016), Germany (Stein, 2003), the Netherlands (Visser, 2010), and Japan (Taniguchi, 2002).

Urban freight networks, infrastructure, and underground space have all changed dramatically as a result of the creation of ULS. This is a critical issue for a city's long-term viability. ULS is also a long-term global planning tool for the survival and development of the city, based on an examination of the external environment, internal conditions, and changing tendencies.



ULS can efficiently relieve traffic congestion, improve freight efficiency, preserve land, energy, and other resources, and minimise pollution and traffic accidents by transferring some of the cargo in the city to underground pipes or tunnels (Rijsenbrij and Pilage, 2002). ULS is being developed to meet significant national strategic goals and development ideas, such as "innovation, coordination, green, open, and sharing." Beijing, Shanghai, and other cities have incorporated ULS into their urban underground space designs. In addition, the Natural Science Foundation of China supported "Integration and Management of Urban ULS under the Guidance of New-type Urbanization" as a Key Project in 2016, the Shanghai Science and Technology Commission supported "Research on Key Technology of Urban ULS Planning," and ULS became the focus of the National Natural Science Foundation funding in 2017, indicating that China has begun to pay close attention to ULS.

Navigating the road ahead for freight transportation Industry in India

- *Shubham Mehrotra*

Globally and in India, business activity has begun to reach pre-pandemic levels, indicating a quick recovery from COVID-19's second wave. In September 2021, the Nomura India Business Resumption Index (NIBRI) surpassed 100. With the business sector reaching new heights and expanding operations, demand for logistics has risen as well. However, there is still apprehension, and enterprises are attempting to buffer themselves in order to survive any potential damage from future COVID-19 waves.



According to an ICRA analysis, with demand recovery approaching pre-pandemic levels, the logistics industry was able to recoup a large portion of losses sustained in the first half and ended FY21 with revenue growth of nearly 4%. The domestic road logistics industry is predicted to rise by 6-8 percent in the current financial year, which is a positive indicator for the Indian economy. Concern levels are growing as post-pandemic product demand remains unabated, and optimistic expectations for increased demand in the second half. According to reports, merchants are trying to compensate for worldwide shipping problems by front-loading their Christmas inventory purchase activities. This adds to the growing evidence of a major and escalating bullwhip impact as companies scramble to get critical components and completed goods. The Indian government responded quickly, exempting cargo movement through ports, supply systems, and the transportation of crucial supplies from the shutdown. Although airports were closed to people, they were open to air freight, particularly vaccines and other needs.

During the early phase of the epidemic, the road transport industry was badly hit. Due to lockdown limitations, just around 20% of India's about 10 million vehicles were operable, which meant that the trucking sector, which handles more than 60% of the country's cargo operations, came to a standstill during the initial phase of the epidemic. The issues caused by COVID-19 have caused severe disruptions in the country's supply networks and transportation industry. Many tiny and disorganised players closed their doors, laying off drivers and disrupting the broader ecosystem. This led in more downstream consequences.

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!