



**K. K. Wagh Institute of Engineering Education & Research, Nashik**  
(An Autonomous Institute From A.Y. 2022-23)

SUMMER-2024	
Exam Seat No.:	
Academic Year:2023-2024	Semester:IV
Class:SY	Program:MBA
Branch Code:M.B.A.	Pattern:2022
Name of Course:Business CASE STUDY in Operations Management	Course Code:MBA224406
Max. Marks:30	Duration:1.15 Hrs.

**Instructions:** Candidates should read carefully the instructions printed on the Question Paper and on the cover page of the Answer Book, which is provided for their use.

1. This question paper contains 3 page(s).
2. Answer to each new question is to be started on a new page.
3. Assume suitable data wherever required, but justify it.
4. Draw the neat labelled diagrams, wherever necessary.
5. The last columns indicates the Course Outcome and level of Blooms Taxonomy of the Question/sub-question.
6. Solve Any 2 Questions from the 3 Questions given below.

Q.1) 1.Deere & Company

(15) CO1,  
CO2,  
CO3,  
CO4,  
CO5

Deere & Company (brand name John Deere) is famed for the manufacture and supply of machinery used in agriculture, construction, and forestry, as well as diesel engines and lawn care equipment. In 2014, Deere & Company was listed 80th in the Fortune 500 America's ranking and was 307th in the 2013 Fortune Global 500 ranking.

**Supply Chain Cost Reduction Challenges:** Deere and Company has a diverse product range, which includes a mix of heavy machinery for the consumer market, and industrial equipment, which is made to order. Retail activity is extremely seasonal, with the majority of sales occurring between March and July.

The company was replenishing dealers' inventory weekly, using direct shipment and cross-docking operations from source warehouses located near Deere & Company's manufacturing facilities. This operation was proving too costly and too slow, so the company launched an initiative to achieve a 10% supply chain cost reduction within four years.

**The Path to Cost Reduction:** The company undertook a supply chain network-redesign program, resulting in the commissioning of intermediate "merge centers" and optimization of cross-dock terminal locations.

Deere & Company also began consolidating shipments and using break-bulk terminals during the seasonal peak. The company also increased its use of third-party logistics providers and effectively created a network that could be optimized tactically at any given point in time.

**Supply Chain Cost Management Results:** Deere & Company's supply chain cost-management achievements included an inventory decrease of \$1 billion, a significant reduction in customer delivery lead times (from ten days to five or less) and annual transportation cost savings of around 5%.

1)Devise a Supply Chain Strategy for Intel and show in detail what they did to reduce the supply chain costs.Draw flowcharts if necessary.

2)List 2 cost reduction strategies in TRANSPORTATION.

Q.2) 2. AGCO

(15) CO1,  
CO2,  
CO3,  
CO4,  
CO5

Like Deere & Company, AGCO is a leading global force in the manufacture and supply of agricultural machinery. The company grew substantially over the course of two decades, achieving a considerable portion of that growth by way of acquisitions.

As commonly happens when enterprises grow in this way, AGCO experienced increasing degrees of supply chain complexity, along with associated increases in cost, but for many years, did little to address the issue directly, primarily due to the decentralized and fragmented nature of its global network.

In 2012, AGCO's leaders recognised that this state of affairs could not continue and decided to establish a long-term program of strategic optimisation.

**Supply Chain Cost Reduction Challenges:** With five separate brands under its umbrella, AGCO's product portfolio is vast. At the point when optimisation planning began, sourcing and inbound logistics were managed by teams in various countries, each with different levels of SCM maturity, and using different tools and systems.

As a result of the decentralised environment, in which inbound logistics and transport management were separate operational fields, there was insufficient transparency in the supply chain. The enterprise as a whole was not taking advantage of synergies and economies of scale (and the benefits of the same). These issues existed against a backdrop of a volatile, seasonal market.

**The Path to Cost Reduction:** Following a SCOR supply chain benchmarking exercise, AGCO decided to approach its cost reduction and efficiency goals by blending new technology—in the form of a globally integrated transport management system (TMS)—with a commitment to form a partnership with a suitably capable 3PL provider.

As North and South American divisions of the company were already working with a recently implemented TMS, leaders decided to introduce the blended approach in Europe, with commitments to replicate the model, if successful, in its other operating regions.

With the technology and partnership in place, a logistics control tower was developed, which integrates and coordinates all daily inbound supply activities within Europe, from the negotiation of carrier freight rates, through inbound shipment scheduling and transport plan optimisation to self-billing for carrier payment.

**Supply Chain Cost Management Results:** Within a year and a half of their European logistics solution's go-live, AGCO achieved freight cost reductions of some 18%, and has continued to save between three and five percent on freight expenditure, year-on-year, ever since. Having since rolled the new operating model out in China and North America, the company has reduced inbound logistics costs by 28%, increased network performance by 25% and cut inventory levels by a quarter.

1)Devise a Supply Chain Strategy for Intel and show in detail what they did to reduce the supply chain costs.Draw flowcharts if necessary.

2)List 2 cost reduction strategies in TRANSPORTATION.

Q.3) 3. Terex

(15) CO1,  
CO2,  
CO3,  
CO4,  
CO5

Headquartered in Westport Connecticut, Terex Corporation may not be such a well-known name, but if your company has ever rented an aerial working platform (a scissor-lift or similar), there is a good chance it was manufactured by Terex and dispatched to the rental company from its transfer center in North Bend, Washington.

The North Bend facility is always full of lifting equipment. The company makes most pieces to order and customizes them to meet customers' unique preferences. Terex maintained a manual

system for yard management at the transfer centre, which generated excessive costs for what should have been a relatively simple process of locating customers' units to prepare them for delivery.

**The Supply Chain Cost Reduction Challenge:** A wallboard and sticker system was a low-tech solution for identifying equipment items in the yard at Terex. While inexpensive in itself, the solution cost around six minutes every time an employee had to locate a unit in the yard. It also required a considerable number of hours to be spent each month taking physical inventories and updating the company's ERP platform.

**The Path to Cost Reduction:** Terex decided to replace the outdated manual yard management process with a new, digital solution using RFID tracking. Terex decided to replace the outdated manual yard management process with a new, digital solution using RFID tracking. Decision-makers chose a yard management software (YMS) product, and then had the transfer centre surveyed before initiating a pilot project covering a small portion of the yard.

After a successful pilot, the company approved the solution for full-scale implementation, replacing stickers, yard maps, and wallboard with electronic tracking and digital inventory management. As of December 2017, Terex was planning to integrate the yard management solution with its ERP platform to enable even greater functionality.

**Supply Chain Cost Management Results:** While the YMS cannot reconcile inventory automatically with the Terex ERP application, it does at least provide a daily inventory count via its business intelligence module. That alone has saved the labour costs previously incurred in carrying out manual counts.

More importantly, though, the RFID-based unit identification and location processes have saved the company around 70 weeks per year in labour costs, by cutting the process-time down from six minutes, to a mere 30 seconds per unit.

1) Devise a Supply Chain Strategy for Intel and show in detail what they did to reduce the supply chain costs. Draw flowcharts if necessary.

2) Explain how IT and Software have been used by Terex to increase the efficiency and cost reduced.

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