



2015 TOCICO International Conference

Sailing Against The Tide

JCB Implementation Case Study

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Presentation Outline

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1. About the company
2. Practices in the industry and unique challenges faced
3. Impact of the challenges on the stake holders
4. TOC solutions implemented
5. Results
6. Gaps in results and the challenges

About the company

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- World's third-largest construction equipment manufacturer.
- Today, we have 22 plants , on four continents and more than 750 dealers around the world.
- Produces a range of over 300 machines and maintains a reputation for unrivalled customer service.



• Founded	1945
• Headquarters	Rocester, Staffordshire, United Kingdom
• Products	Construction, Demolition & Agriculture Machinery



The Challenges in the industry

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Shorter Customer's tolerance time



Conflict of 'Serving customer within 24 hours' Vs 'Control Inventory and Obsolesces



Unpredictable & Need based demand

The Challenges in the industry

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High dependency on planning capabilities of retail outlet in-charge

Legal Compulsion to support equipment



Spurious suppliers

The Business Scenario in India

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1. Downturn in infrastructure, mining sector since 2012



2. Dealers major income source (equipment sale) has shrunk, making business unviable for several dealers

3. The entire market for equipment has declined by almost by 20% to 30%



Impact of the challenges on the stake holders : Customers

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- Direct financial damage for every hour of downtime of equipment
- Loss of productive capacity of entire fleet associated with the equipment
- In case of non availability of part, more fire fighting, disturbances
- Possibility of long term impact on repetitive business

Impact of the challenges on the stake holders : Dealers

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- Impact on customer satisfaction and trust on the dealer (may lead customers to alternative means)
- Considerable cash blocked in non-moving parts, higher obsolesces,
- Loss of margin to get stock out parts urgently from the company & Possibility of negative impact on sale of equi



Impact of the challenges on the stake holders : Company

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- Possibility of reputation of entire company getting impacted due to lower service.

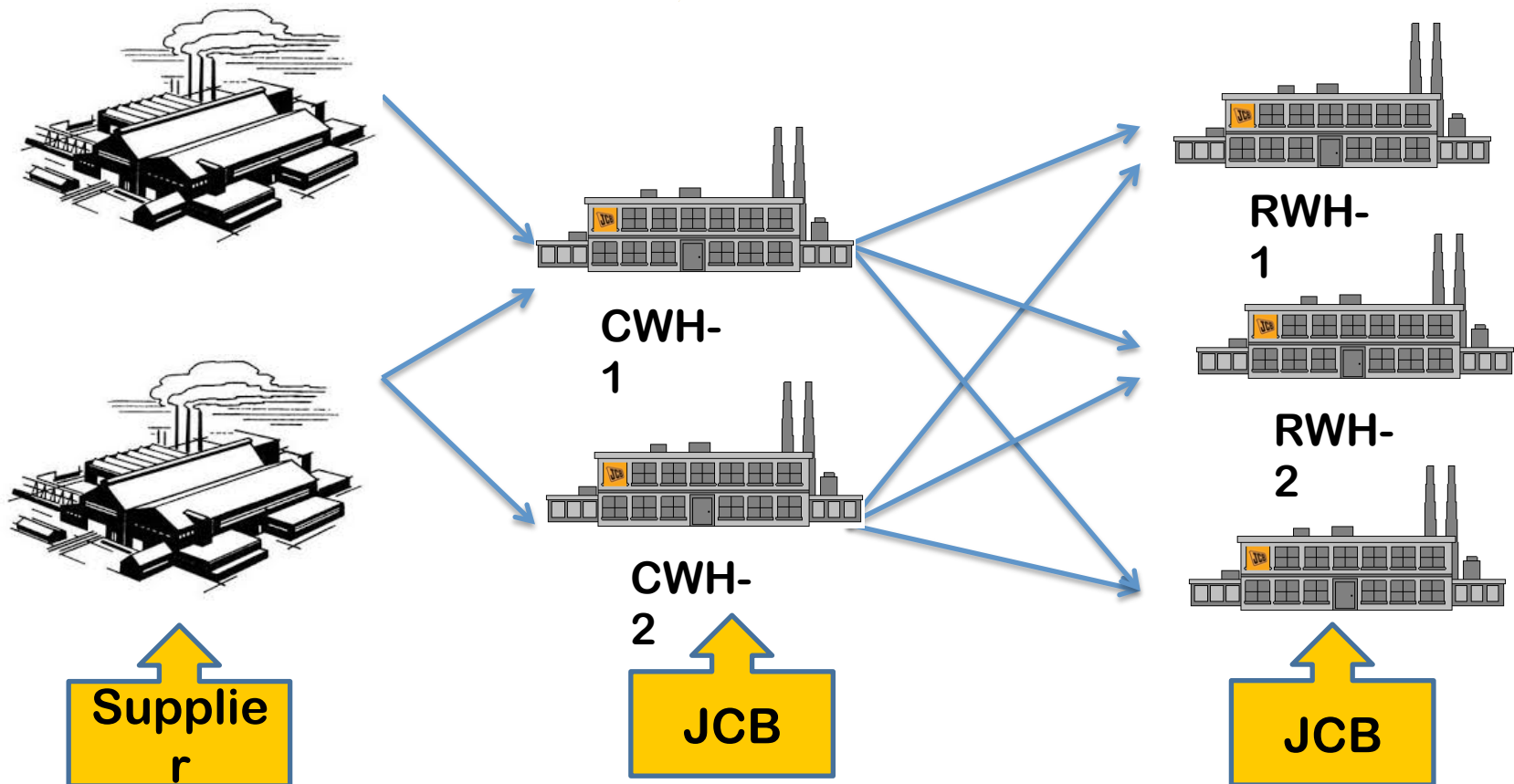


- Higher OE to provide service to market
 - More warehouses
 - Higher inventories
 - Higher obsolesces



Internal Supply Chain

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TOC solutions implemented: JCB

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- Out of total universe of 30,000 parts 8,000 switched on replenishment process
- Buffer norms set for RWH and CWH
- Replenishment mechanism implemented between CWH to RWH

- Receiving daily orders from dealers, supplying more frequently (Manual process converted to automated process)
- Separate packaging of black, red and other orders for faster processing at dealer's end

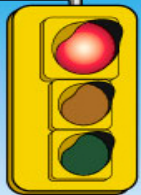
- Instead of monthly ordering to vendors, started placing orders weekly based on actual consumption
- Changing the mindset of vendors from bulk orders supply to frequent supply in small batches

Color based priorities and DBM suggesting changes in buffer norms

JCB

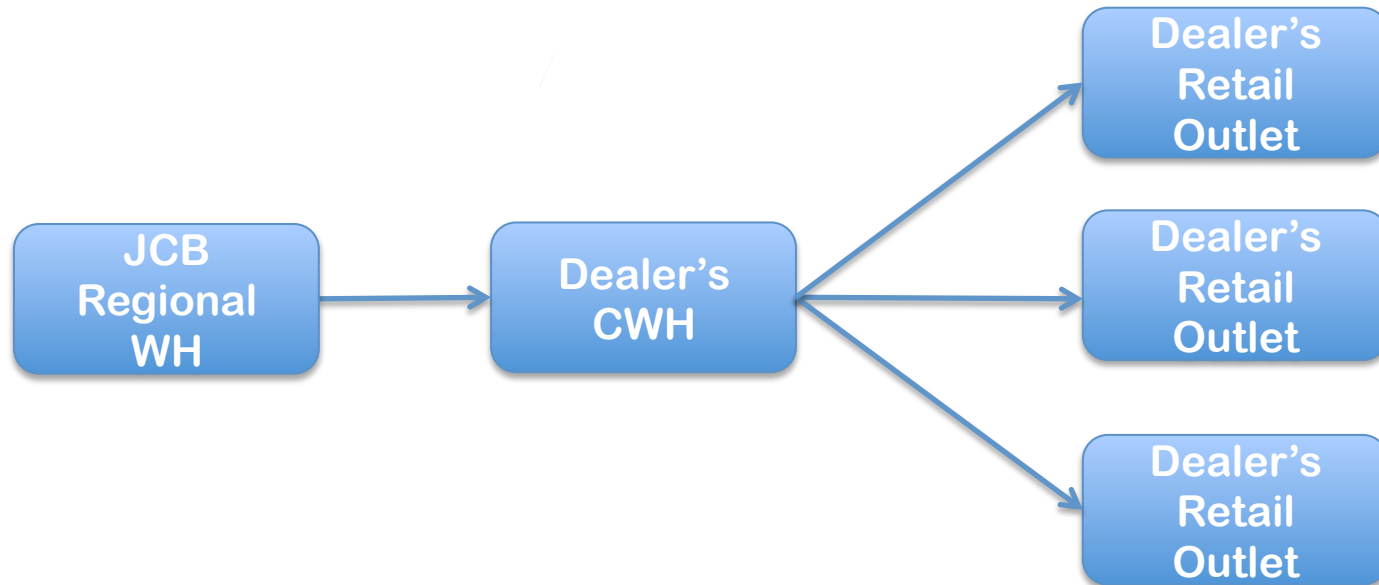
Dealer

Supplier



Dealers Supply Chain and Planning process before TOC

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- Retail outlet in-charge forecasts next month's demand and places order to dealer's CWH
- Dealer's CWH manager decides what to supply and what not to supply resulting in ongoing conflict
- Dealer places three months advance orders to JCB as per forecast

Effects of solutions implemented: Dealers

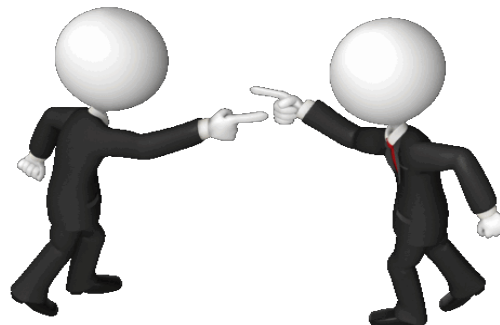
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Removed dependence on skill or market knowledge of retail outlets in-charge



Resolved ongoing conflict between retail outlet in-charge and CWH material manager of dealer on what to supply .

CWH Material Manager



Retail Outlet In-charge

Challenges in implementing TOC solutions

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- Tax implication, difficult handling of heavy parts prevented from building one CWH
- Dealing with a large product range consumed in small quantities
- Breaking traditional practice of JCB demanding 3 months advanced orders from dealers
- Convincing dealers to follow replenishment up to his stores

Key Terminologies

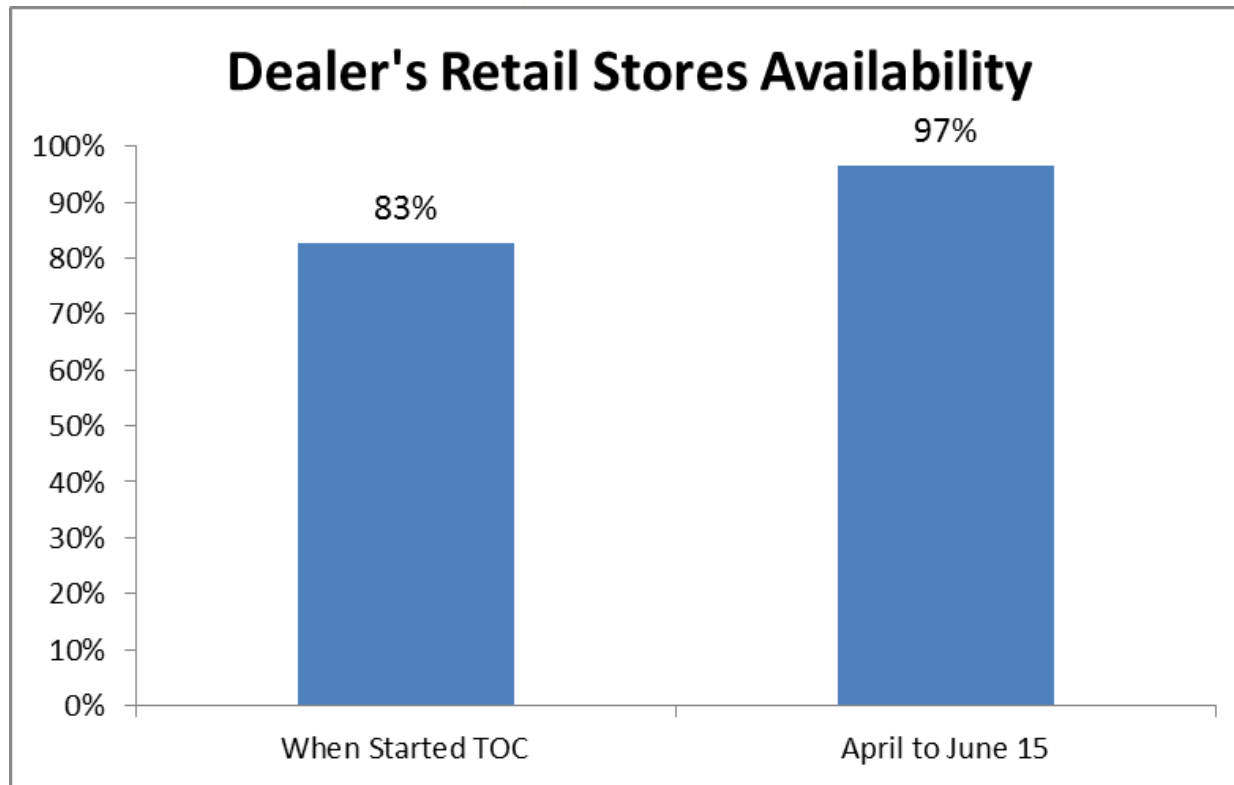
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1. **Off The Shelf Availability (OTS):** Out of total order lines received on a day, how many order lines system allocated the stock in full the instance order was received at respective warehouse
2. **Vehicle Off Road (VOR):** The urgent order dealer raises to JCB if an equipment is under 'Break Down' and he doesn't have required part in any of his stores



The Results at Dealers

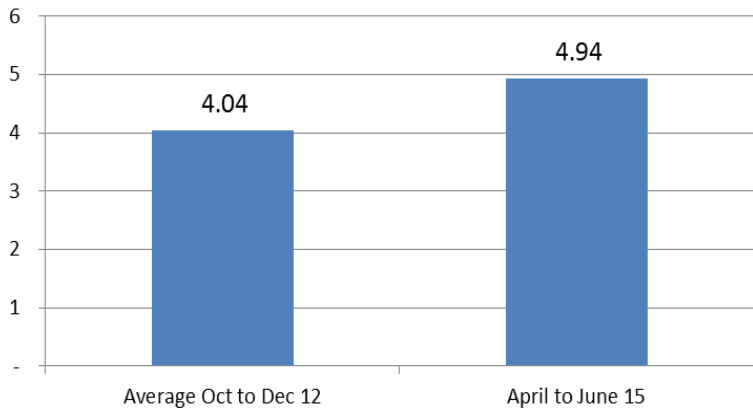
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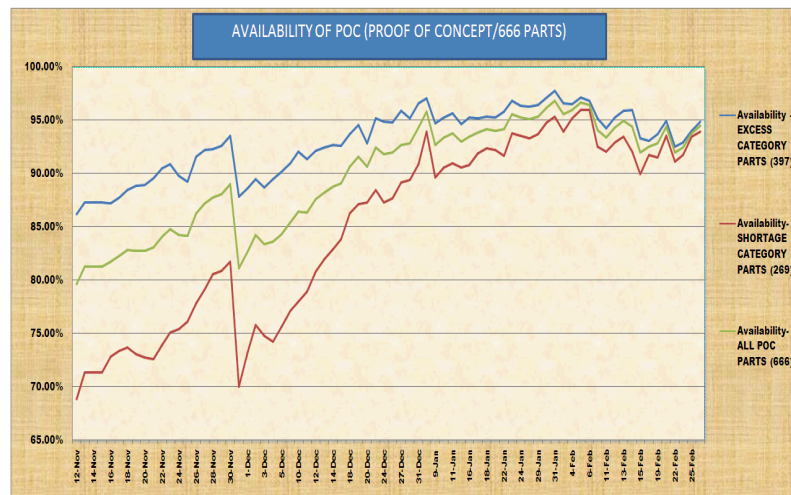
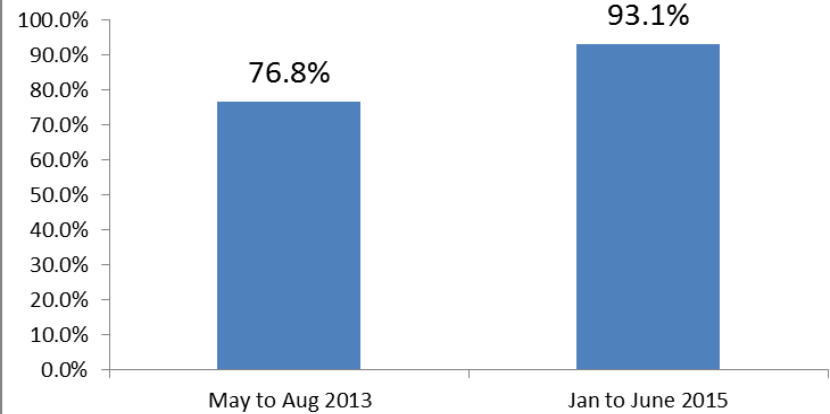
The Results at JCB

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Inventory Turn



OTS

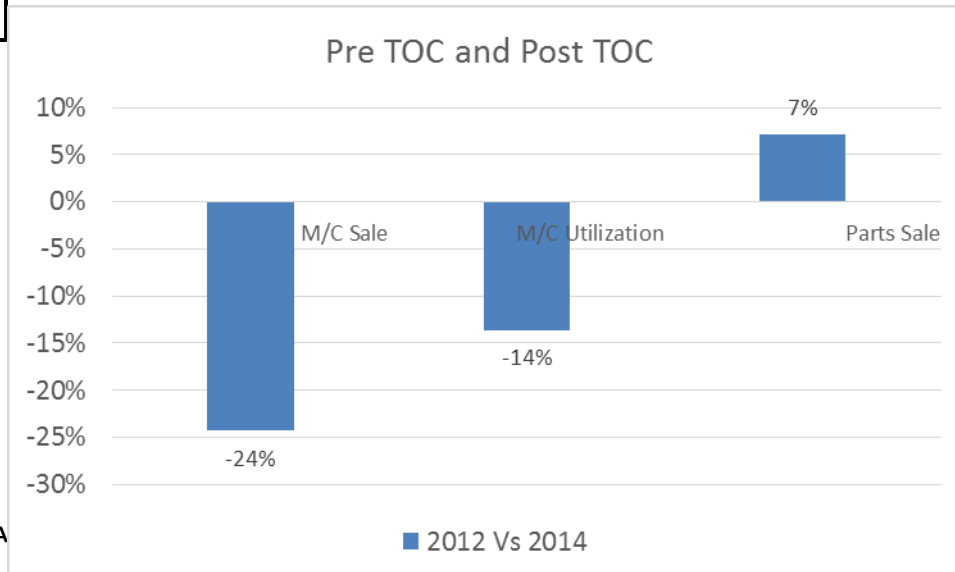
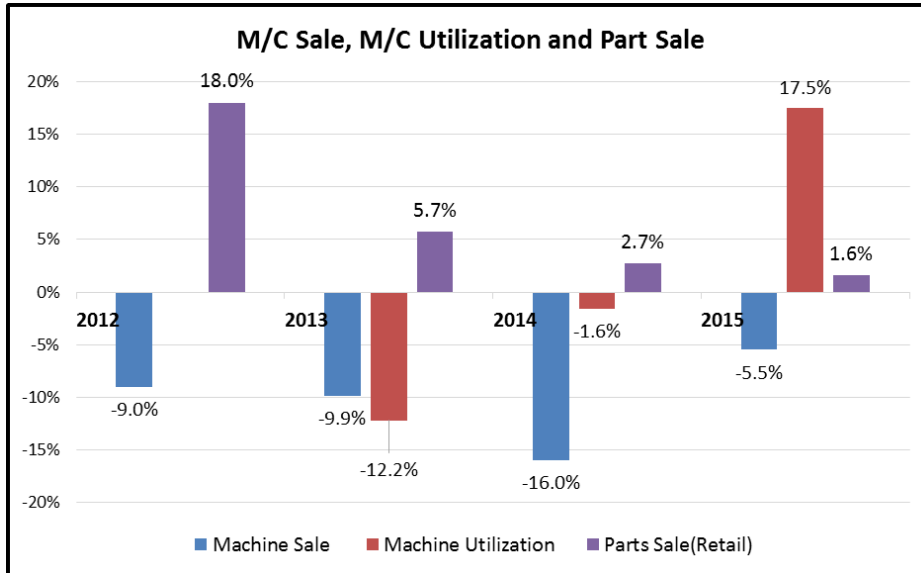


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The Results : JCB Sales Growth

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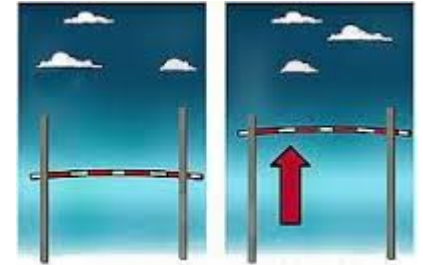
Other Achievements

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System taking over control of retail outlets (retail outlets contributing ~90% sales)



Switching from generic availability measure to much stringent measure OTS

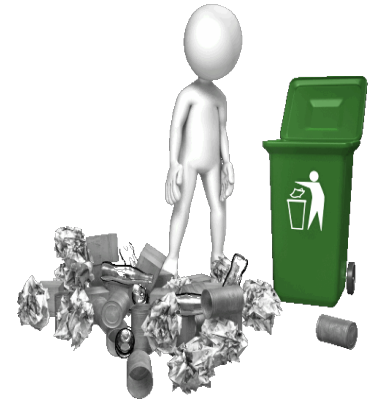


Process for addition of parts on replenishment

Gaps in results and the challenges

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Improvement in dealers inventory turn:
Significant amount of non moving
inventory in system (Dealers ~40%, JCB ~
25%)



A solution is developed for fulfilling demand
from non-moving inventory of dealers

- Creating virtual pool of dealers non moving inventory
- Fresh replenishment orders from other dealers first fulfilled from virtual pool



