

Welcome to Session 238

Optimizing your warehouse through real-time Mobility

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Changes in the Business climate will impact your operation

- Outlook for growth
- Workforce demographics
- Outlook for energy costs
- Expanding regulations
 - Transportation
 - Food Safety, track and trace

Customer Driven Changes

- Smartphone adoption and the connected consumer
- Challenges for multi-channel fulfillment and perpetual inventory accuracy
- Implications for store operations

Track and Trace initiatives address customer expectations, regulatory compliance, and risk management

- Food Safety act signed into law 1/4/2011
 - Specific FDA regulations to follow
 - 1 forward / 1 back from farm to fork
- Produce Traceability Initiative:
 - Standards for Labeling at pallet and case level
 - GTIN standards allowing for Application Identifiers to encode lot#, expiration date, country of origin

Track and Trace Initiatives (cont).

- State Pedigree initiatives tracking for prescription pharmaceuticals
 - What, not how
 - Phase in in CA by 2015
- Aerospace and transportation
- Consumer demands for product information
 - Country of origin
- Need to move data capture to lower units of measure and more operations

Losing Warehouse Strategy #1

Receive product with paper

- Make it difficult to quickly and accurately identify product at the dock
- Don't burden small suppliers to invest in EDI 856 / or Web portal support and adequate labeling
 - Using printouts of open PO's and expected receipts to reconcile the shipments
 - Key entry to update Inventory
- Increase staffing
- Delay inventory availability for customer orders
- Make it impossible to cross-dock materials
- Instead: Require ASN and UCC128 barcodes at shipment/pallet/case level as appropriate
 - Evaluate 2D barcodes to encode additional product information on the physical product rather than a license plate to reference an electronic record
 - Evaluate RFID for a non-touch, granular, information rich receiving process

Losing Strategy #2: Enforce no requirements on suppliers for product labeling and packaging

- Don't burden procurement with more work
- Don't burden small suppliers with labeling requirements. "our suppliers are small companies"
- Don't burden large suppliers "We're too small to put demands on our suppliers"
- Make it impossible to to accurately and productively identify product through putaway, replenishment, inventory control, picking, shipping and returns
- Instead:
 - Establish labeling requirements considering the entire operation
 - Low units of measure
 - Lot / Date capture if needed
 - Barcode Scan-ability
 - Create a Web Portal or subscribe to a service for small suppliers
 - Leverage what other larger customers are already requiring from your suppliers

Losing Strategy #3: Let the user put the product away where ever it's convenient for them

- Let put-away optimize their work, replen and picking can fend for themselves.
- We can always send more to outside storage if our space utilization is low.
- Instead:
 - Establish a Slotting strategy needs to incorporate all storage locations in the warehouse
 - Slotting logic is fundamental to efficient operations and good space utilization
 - Rules will be unique to your business and to a degree, the specific facility
 - Real-time directed put-away with scan or RFID verification.

Losing Strategy #4: Cycle count with paper

- Count off shift
- Count few items per hour
- Make it hard to change priorities and re-direct staffing.
- Require going back to fixed workstations to research inventory issues or freeze a location.
- Real-time cycle count:
 - Get the ergonomics right
 - Leverage the barcodes on the product.
 - Enable research

Losing Strategy #5: Let IT drive the choice for mobility

- Lessen the burden on IT by having 1 device do everything regardless of the operational requirements for:
 - Data capture: Symbology, distance, lighting, RFID, Voice
 - Information presentation: Screen, voice
 - Ruggedness: Vehicle vs handheld vs manager
 - Outdoor use: Display, sealing
 - Temperature: Cooler/Freezer
 - Ergonomics:
 - Hands-Free
- Instead: Use the optimum technology for the operational requirements. Leverage flexible multimodal technology when possible.

Losing Strategy #6: Replenish active pick locations visually

- Don't waste time tracking the physical characteristics of all these SKU's and trying to match them to storage locations
- Pick location stock-outs are manageable, just staff with more runners
- We don't need to scan product into a pick location, our people know the products.
- Instead:
 - Look at GDSN for physical characteristics management
 - Leverage slotting logic to drive replenishment in real-time.
 - Hands-free solutions, wearable or voice to make replenishment productive.
 - Scan verify to keep one replenishment error from becoming multiple picking errors

Losing Strategy #7: Don't worry about all this hands-free picking hype

- It's just a fad
- So half my payroll is picking, do I really have to worry about a few seconds per transaction?
- They've been talking about traceability for years, it'll never happen. I won't have to capture lot# on orders
- Instead:
 - Look at the regulatory requirements strategically
 - Evaluate the process to identify the best way to:
 - Present task information to the user
 - Capture information
 - Verify task accuracy
 - Handle exceptions
 - Communicate
 - Adapt to Process Changes over 5 year life span

Losing Strategy #8: Manage by walking around

- Keep the management team tied to their desks with voicemail and email
- Let the supervisors walk around to find workers when they need to move staff
- We've got that overhead pager system, let's keep it cranking
- We give our important people radios
- Instead:
 - Leverage the existing mobile devices to enable voice and text communication to an individual or work group
 - Re-task workers quickly
 - Minimize indirect time
 - Link up the radio system with the IP voice world to get security, maintenance, yard management online

Losing Strategy #9: Don't proactively manage the mobile infrastructure

- Wait until batteries last 1 hour before replacing
- Survey the building for wireless when there's no product in the rack, then claim amazement when there are coverage gaps.
- Let employees grab any device without assigning it
- Don't track abuse and loss by employee
- Instead:
 - Budget for batteries, they last about 500 charge cycles.
 - Control the devices and their distribution:
 - Leverage RFID for a passive verification

Align the technology investment considering:

- Industry trends:
 - Customer service trends
 - Regulatory
- Business strategy
- Supply chain strategy
- Product characteristics
- Facility design
- Mechanization
- Technology Trends and Capabilities
 - Voice communications
 - Wearable, voice prompting, speech recognition
 - 2 dimensional / imaging
 - RFID



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