Ground Rules for Designing the Distribution Center of the Future

Presented by:

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Wait, a Dog? What kind of Seminar is this?

Would you want a Distribution Center that:

1. Doesn’t do what you tell it to do?
2. Doesn’t play well with others?
3. Tears through labor like a Labrador with a new chew toy?
4. Makes a mess when you leave it alone for too long?

Much like with a new puppy, you need to establish ground rules to help you define success in 2018 and beyond.
Sound Familiar?

“There has been a dramatic change in the overall business climate, including the rising cost of money and labor, fierce global competition, and rapid technological sophistication.”

We have been worried about rising costs, competition, and technology for over 25 years.

Challenge: Ignoring the Distractions and Getting Back to Basics
What We Are Going to Discuss

• Ground Rules for designing the distribution center of the Future
• An brief case study to demonstrate usage of the ground rules in your business
Rule # 1 – Know Who Your Customer Is and What Your Customers Want

• Can You:
  – Identify which customers contribute 80% of your revenue?
  – Demonstrate which products contribute 80% of your revenue?
  – What is the cost to serve the bottom 20% of your Customers?
  – Where is customer demand versus your current distribution center locations?
Analysis Includes

- Inbound / Outbound Order Profiles
- Customer Locations
- Costs to Serve
- Quality Metrics
  - On time delivery
  - Order accuracy
Rule #2 – Establish Metrics That Measure Success

- Determine
  - What is our strategy?
  - What metrics allow us to measure if we are accomplishing that strategy?

What is the #1 Metric Mistake?

<table>
<thead>
<tr>
<th>Functional Area</th>
<th>Performance Indicator Name</th>
<th>Performance Indicator Description</th>
<th>Service Level</th>
</tr>
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<tbody>
<tr>
<td>Quality</td>
<td>Shipped Quantity Accuracy</td>
<td>Assesses customer reported problems with shipment quantity short ships and overages (i.e. variances from ordered quantities not otherwise due to backorders).</td>
<td>98.50%</td>
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<td>Outbound</td>
<td>Outbound Single Line Order Volumes</td>
<td>Outbound non-crossdocked shipped single line orders will not exceed 5% of monthly outbound order volumes.</td>
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Not Tracking in Real Time

- Key Metrics must be Tracked and Feedback Provided in as close to real time as possible
Rule #3 – Determine Your Process and Technology Gaps

Analyze Current Processes

• Process Mapping
• Value Stream Mapping
• Process Improvement
Technology Gaps

What productivity enabling technologies are missing?

- Voice
- Vision
- Out of the box automation
- New Facilities
- Automation / Robotics
Rule #4 – Create a Roadmap for Technology Implementation

• ARM Methodology
  – Analyze
    • Determine where you are and where you need to go
  – Retrofit
    • Adding enabling technologies
  – Mechanize
    • Creating highly automated solutions
Rule #5 – Diligently Procure the Technology, Systems, Facilities, and People Required

Example of procurement process

1. Identify project team
2. Create 3 to 5 year acquisition calendar
3. Create Detailed plans for each major acquisition
4. Engage subject matter experts
Implementing the Ground Rules Example Case

Grocery Distribution Focused on Eastern US

- Servicing 1 Customer out of 3 East Coast DCs
- Cost Sensitive
- Need for rapid replenishment
Rule # 1 – Know Who Your Customer Is and What Your Customers Want

• Data analysis determined that 25 Stores in one region accounted for majority of revenue
  – Customers want rapid replenishment
  – Inventory needs to be fresh with longest expiration date
  – Create potential ecommerce platform for metro region
Rule #2 – Establish Metrics That Measure Success

Focus is on:
- Order Accuracy
- On time Delivery
- Accuracy of Inventory

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Rule #3 – Determine Your Process and Technology Gaps

Analyze Current Processes
- VSM Completed to Determine Current Process Improvements

Analyze Current Systems
- Determine needs in short and long term
Rule #4 – Create a Roadmap for Technology Implementation

• Need for new Metro DC closer to customers
  – Reduces mileage to serve
  – Need for automation / process changes
Rule #5 – Diligently Procure the Technology, Systems, Facilities, and People Required

- Create project plans, management presentations
- Capital Budget
- Vendor reviews
- System design and selection
Questions?
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Or visit MODEX Booth B2730