TECHNOLOGY AND BUSINESS INNOVATIONS TO IMPROVE OPERATIONS

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PROJECT SPONSOR: STEVEN RODGERS, SLOAN VALVE
Agenda

- Introduction & Team Structure
- Supplier Data Optimization Review
- Warehouse Management Review
- Conclusion
Introduction

- **Sloan Valve**
  - Industry Leader and Innovator
  - Green Initiatives, Commitment to Sustainability
  - [www.SloanValve.com](http://www.SloanValve.com)

- **IIT Students**
  - Diverse Group of 9 INTM & ME students

- **IPRO 306**
  - Creating Process Efficiencies Through the Use of Technology
    - Optimization of Supplier Data
    - Warehouse Improvements via Warehouse Management System (WMS)
Team Structure

Sean Delahanty (MITO)
Team Lead

Hammad Toor (MITO)
Team Coordinator

Hetul Thakkar (MITO)
Project Lead
Supplier Data Optimization

Yayan Zhang
INTM

Sikander Soleja
M.E.

Arjun Jalan
M.E.

Julien Jaouen (MITO)
Project Lead
Warehouse Management

Sung Kim
M.E.

Santiago Guerrero Jones
MITO
Supplier Data Optimization Review

- Introduction & Team Structure
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Supplier Data Optimization – Global Sourcing

Issue ➔ Process and Solution ➔ Implementation
Issues

- 109,000 Suspect Data Records Currently in SAP
- Data Records Are Obsolete, Duplicate or Have Incomplete Information
- Currently No Process Exists to Manage and Accurately Maintain Data
To-Be Process

1. Download Data (109,000)
2. Cleanse (30,000)
3. Poll suppliers (95 vendors correlates to 90% spend)
4. Validate

Repeat

- Upload into SAP
- Format data
- Consolidate

Check random sampling
Repeat based on quarterly/annually

Info Records
Material Master
Vendor Master

(109,000) (30,000) (95 vendors correlates to 90% spend)
Solutions

Tactical Solution (Short)

Mass Emailing
Quarterly Review

Tool

- Microsoft Access
- Mail Merge
- Mail Group

Quarterly Business Review

Data Update

No Action

Y

Supplier Update Template

Review & Upload to SAP

N
Solutions (cont’d)

- **Strategic Solution (Long)**
  
  **Supplier Web Portal**

  1. Log Into Supplier Portal
  2. Download Self Service Template
  3. Updates Relevant Data
  4. Upload Template
  5. Sourcing Validates
  6. Negotiate
  7. Updates SAP
Implementation

- **Supplier Portal Development / Creation**
  - Web Development Process

- **Data Record Management Process**

- **Refine Process**
Warehouse Management Review

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Supply Chain Optimization – Current Issues

- Increased operational complexity
- **No formal procedures on how to store items**
  - Manual processes
  - Wrong people making put-away decisions
- **Warehouse organization**
  - Hard to identify products in storage locations
  - Bins not clearly defined
  - Inventory is not stored by volume of transactions
- **Shipping errors on outbound and internal orders**
Accomplishments

New ABC → Identify fast movers
Accomplishments

New and Improved PROCEDURES

Current Process

Future Process
Accomplishments

Warehouse
ORGANIZATION
Additional Accomplishments

• Definition and quantification of BIN LOCATIONS
  • BULK 294 Bins
  • PALLET RACK 719 Bins
  • FLOW RACK 172 Bins
  • GRAVITY RACKS 136 Bins

• Identification of products and bins

• DEMO development, testing and instruction material
Expected Implementation Results

Picking Productivity Improvement

- Increased Inventory Control
- Better Information Accuracy and Visibility
- More Efficiently Managed Workforce

Savings

- Returns: 25%
- Labor: 25%
- Scrap: 30%
- Carrying Cost: 15%
Recommendations

- Radio Frequency technology is required to maintain accuracy level and achieve expected results
- Move the demo site to a fully configured warehouse management module in the testing system
- A comprehensive implementation project plan needs to be developed
- Further enhancement to Unit and Integration test scripts
• Introduction & Team Structure

• Supplier Data Optimization Review

• Warehouse Management Review

• Conclusion
Conclusion

IPRO 306 Takeaways

- Common, Real World Issues
- Collaboration, Working “With”, Not “For”
- Impact! Both Short and Long Term
Thank You for Your Time and Attention! Questions?
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<tbody>
<tr>
<td>1</td>
<td>Material</td>
<td>Plant</td>
<td>Lot Size</td>
<td>Minimum Lot Size</td>
<td>Planned Deliv. Time</td>
<td>Country of Origin</td>
<td>Rounding value</td>
<td>Material Group</td>
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<td>(Actual)</td>
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**MRP procedure**
- MRP Type: PD
- MRP Type: MRP
- Reconder Point: 9
- Planning time fence: 0
- MRP Controller: PP2

**Lot size data**
- Lot size: EX
- Lot-for-lot quantity
- Minimum Lot Size: 200
- Maximum Lot Size: 9
- Assembly scrap (%): 9.00
- Rounding Profile:
- Unit of Measure Grp:

**MRP areas**
- MRP area exists
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<tr>
<td>1</td>
<td>Vendor Name</td>
<td>Sales Person</td>
<td>Street</td>
<td>City</td>
<td>State</td>
<td>Zip</td>
<td>Country</td>
<td>Telephone</td>
<td>Fax</td>
<td>E-Mail</td>
<td></td>
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<td>2</td>
<td>(not in Vendor Master)</td>
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