IE3100R System Design Project

Problem & Objectives

Problems
1. Inefficient processes within the Order Management Cycle.

Scope
Process reengineering in order management cycle and warehouse operations.

Value Stream Mapping
4 sectors are identified to time wastage and inefficiency:
- DRP & Commercial check
- Credit Check
- Warehouse Packing
- Shipment

Credibility Ranking Criteria:
- Financial Strength
- Loyalty
- Payment History
- Order History

Current Order Management Cycle

Problems
Presence of process inefficiencies resulting in longer cycle time.

Initial Problems
Manual scheduling of packing jobs.

Current Accomplishments
Identified redundant & inefficient processes.
Reduce cycle time through introduction of automation, simplification and removal of inefficient processes.
Automation packing scheduling process.

Future Improvements
Refinement of SAP system to accommodate greater process flexibility.
Centralisation of warehouse operations.

Methodology

Aims of Process Reengineering
- Eliminate unnecessary steps (price confirmation, release of green light, etc.)
- Reduce inter-department handoffs
- Utilize IT support to automate (system stock/credibility check, automatic scheduling)
- Improve information flow (shared online database)
- Simplify paperwork by electronic billing and documentation

Implementation

System check for Credibility
1) Credibility Ranking Criteria: 4 criterion identified for credibility rating
2) Computation of Credibility Score for all existing customers by pairwise comparison
3) Assess each customer's credibility score based on the rating system and decide whether to prepaack.

Scheduling Tool—EzSchedule
1) Optimization model on AIMMS
2) User function development and UI building

Fishbone Diagram
5 major reasons for inefficiency:
- Excessive managerial interaction
- Lack of standardization
- Slow communication
- Manual handling
- Lack of storage area

Conclusions
The team's study has uncovered several areas where process inefficiencies are prevalent and have analyzed them from a reengineering perspective.

The proposed systems and implementations can expect to reduce overall cycle time and increase job efficiency.
Improvements are continuous and the team recommends further process enhancements which can further improve productivity of the Order Management Cycle.