

# Case Study - Manufacturing Cycle

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Intensive Study Course on Internal Audit

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# Manufacturing Sector

- Engineering, Construction, Power and Projects
- Textiles, Steel and Cement
- FMCG, Pharmacy and Chemicals
- Automobiles

# Characteristics

- Too many verticals
- Absence of structured process flow charts
- Risk of negative cash flows, LD and retention
- Absence of back to back clauses with vendors
- Projects of different value and gestation period

# Manufacturing Cycle

Procurement  
of Raw  
Materials

Conversion  
of Raw  
Materials in  
Finished  
Product

Sales and  
Distribution

# Manufacturing Cycle



Procurement

Inventory

Logistics

# Procurement – Process Cycle

## Sourcing & Budgeting

- Develop procurement plan and budget
- Match needs to supply capabilities
- Analyze company spend profile

Sourcing Strategy

## Supplier Management

- Gather market and supplier intelligence
- Technical and financial due diligence
- Vendor selection
- Vendor masters
- Vendor evaluation

Vendor Management

## Purchase Requisition

- Prepare and process requisitions
- Review and approve requisitions
- Demand management

Requisitioning

## Purchase Orders

- Solicit and track vendor quotes
- Comparative analysis
- Approvals
- Create vendor orders

Purchasing

## Receiving and Payable

- Delivery acceptance
- Record receipts
- Research / resolve expectations
- 3 way matching
- Debit / credit notes
- Payment

Receipt and Payment

# Procurement – Key Issues

## Key Issues



- ❑ Open Purchase orders
- ❑ Quotations
- ❑ Cost Drivers
- ❑ Controls over SOD
- ❑ Duplicate Vendors
- ❑ Source of Procurement

## Good Practices



- ❑ Cross Functional Team
- ❑ Rate Agreement
- ❑ Data Analysis
- ❑ Reverse Auction
- ❑ Automation
- ❑ Vendor Masters

# Inventory Management – Process Cycle



RM Inventory

Production

FG Inventory  
&  
Despatches

Material  
Management

Job-workers

- Receipt of materials
- Quality control of material receipt
- Physical storage of inventory
- Outside storages

- Issues to production
- Booking of consumption
- Production compliance
- Technical efficiency

- Stock holding
- Quality control
- Management of sales prices
- Direct despatches

- Reconciliation of inventory
- Stock in transit
- Access controls over stock movement

- Stock holding
- Booking of production
- Assets
- Scrap management
- Contract management

Inventory  
Turnover

Work in  
Progress

Sales &  
Distribution

Reconciliation

Sub-  
Contracting



# Inventory Management – Key Issues

## Key Issues



- Job Work / Process Loss
- Inventory Warranty / Free Spares
- Quantity Errors
- Inventory Adjustment
- Classification of Inventory
- Insurance

## Good Practices



- Rotation of Teams
- Perpetual Inventory
- Minimum, Maximum & Re-Order Level
- Stacking of Inventory & Storage Locations
- Calibration of Scales
- Automation (Gate Entry, GRN)

# Logistic Management – Process Cycle

## Transporter Management

## Masters Maintenance

## Planning & Despatch

## Insurance

## Bill Processing & Payments

- Transporter appointment
- Transporter agreements
- Transporter efficiency
- Bank guarantees / security deposits
- Performance management

- Distance mapping
- Rate & route mapping
- Truck definitions
- Transit time definitions

- Route planning & scheduling
- Truck utilisation
- TAT monitoring
- Load scheduling
- Reverse logistics

- Insurance coverage
- Lodging claims
- Receipt of claim amount

- Invoice accounting
- Payment processing
- Payment authorisations

Performance Review

Requirements

Utilisations

Claim monitoring

Invoice & Payments

# Logistic Management – Key Issues

## Key Issues



- Contracting for losses
- Route optimization & Rates
- Truck Turnaround Time
- Complexity in invoices / Quantity Tracking
- Truck Loads / Non - Availability
- Demurrage Charges

## Good Practices



- Turnaround Time Monitoring
- Automated Weighment & Trip Reconciliation
- Partnership Approach / Company Financed Fleet
- Contract Terms
- Calibration of Scales
- Automation (Gate Entry, GRN)

