NCR S&OP Journey

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AGENDA

Section

- ABOUT NCR
- NCR S&OP JOURNEY
- APPROACH AND ENABLEMENT
- RESULTS
- WHERE WE ARE HEADED & LESSONS LEARNED
ABOUT NCR
ABOUT NCR

$6.4B  
Trailing 12 month revenue

$984M  
Trailing 12 month EBITDA

1,270  
PATENTS HELD BY NCR

20,000+  
SERVICE PROFESSIONALS in 90 countries around the world

34,000  
PROFESSIONALS

7th  
MOST REPUTABLE BRAND IN TECHNOLOGY

18M  
DIGITAL BANKING USERS

TOP 100  
TECHNOLOGY INNOVATORS

75,000  
SITES USING Aloha Platform

8M  
SERVICE REQUESTS REMOTELY RESOLVED

134 years as a technology innovator
NCR Understands Customer Interactions
Because we interact with consumers everywhere

Financial Solutions
- ATMs
- Consulting Services
- Financial Kiosks
- Branch Solutions
- APTRA™ Software
- Payment Solutions

Retail Solutions
- Self-Service Solutions
- POS and Other Assisted-Service Solutions
- Software, Consulting and Services

Travel & Hospitality
- Airline check-in
- Paper
- Mobile
- Ticket & reissue
- Car rental kiosk
- Hotel Check-in

Healthcare
- Patient check-in
- Wayfinding
- Co-pay
- E-signature
- Self-scheduling

Entertainment & Gaming
- Cash dispensers in casinos
- Entertainment kiosks
  - Rental
  - Buy/Sell/Trade
  - Digital Download

NCR Consumables
- High-quality Document and Media Consumable Solutions
- Consumables Consulting, Logistics and Sourcing Services
- eCommerce Services

#1 in Financial Self-Service
Source: Nielsen Report

#1 in Scanners
#1 in POS Software
Source: Venture Development Corp.

8 out of 10 airlines use NCR Travel
Source: Frost

New industry

New industry

The Leading Global Printer Consumables Company

Source: Frost
NCR S&OP JOURNEY
S&OP Vision & Principles - Starting Point

Based on the following Principles

**Vision** “Sell what we make, make what we sell profitably”

- Reality: Choices and Consequences
- Role based collaboration
- Single sources of truth: Units; Dollars; Opportunities; Metrics
- Integrated process and tools

Driving to NCR business goals

One NCR, one plan
Results

- Up to 20% reduction in forecast error
- Planning cycle times reduced by 25%
- Inventory reduction – DP accuracy enabled lower safety stock levels
  - E&O expense reduction
- Factory blown slot avoidance – minimize DP related misses
- Maturity to advanced capabilities – CPFR, inventory postponement, capable-to-promise
S&OP KPIs & Tool & Process

MAPE 2/3/4
Bias Tracking
Volatility
Vs Naïve F/C

LOB MBR

DASHBOARD/REPORTING

Unit/Class/Feature
Performance Vs
Plan & Outlook-
Units/$

MAPE 2/3/4
Bias Tracking
Volatility
Vs Naïve F/C

Country Collaboration
Regional Demand
Global Supply
Plants/
Supply Chain

Sales Central
“Sales Funnel”

Demand
“From Forecast To Plan”

ERP
“Demand across Supply Base” Global Sourcing; Inv Optimizer

Supply
“Managing the Supply Base”

ERP
“Demand across Supply Base” Global Sourcing; Inv Optimizer
People + Process can only take you so far

- **Wide Gap Between Best in Class and Laggards**

**IMPROVE SALES**

- Customer order cycle time (days)
  - Best-in-Class: 98%
  - Average: 95%
  - Laggards: 90%

**REDUCE COSTS**

- Direct materials cost %
  - Best-in-Class: 60%
  - Average: 62%
  - Laggards: 60%

- Production cost per $1000 revenue
  - Best-in-Class: 382
  - Average: 387
  - Laggards: 392

- Freight cost per $1000 revenue
  - Best-in-Class: 0.5
  - Average: 1.2
  - Laggards: 1.8

**REDUCE WORKING CAPITAL**

- Cash to cash cycle time (days)
  - Best-in-Class: 45
  - Average: 60
  - Laggards: 90

- Finished Goods Inventory Turns
  - Best-in-Class: 9.8
  - Average: 6.5
  - Laggards: 16.5

- Raw Material Inventory Turns
  - Best-in-Class: 10
  - Average: 16
  - Laggards: 25

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**S&OP Process Maturity**

- **People + Process**
- **People + Process + Technology**
- **V**

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Note: Best-in-Class = top 25% of performers; Industry Average = middle 50%, and Laggards = bottom 25% of performers.

Source: Inspirage Benchmarking for Industrial Products industry group, leverages a database comprising 1800+ organizations across Industrial Products.
Project Motivation

The Need for Change

- NCR is challenged with consistent and effective execution of planning and fulfillment of demand
- Current business solution is unnecessarily complex and not producing consistent business results
- Multiple systems do not provide a single-source-of-truth
- Oracle Planning Cloud was chosen because:
  1. It aligns with “One System” strategy to simplify the enterprise solution
  2. Lower total cost of ownership ($1.8M over 3 years)
  3. Sufficient functionality which Oracle is continually improving
Organizational Scope
Planning Cloud will be a Global Deployment

The project will impact the supply chain planning function across NCR global locations.

Key Planning Locations
- N. Amer.
- UK
- Brazil
- Chennai
- Budapest

Demand Planning
Supply Planning
S&OP
High-Level System Scope & Process Impact

Software Replacement Scope

- Demand Planning
- Supply Planning
- Inventory Planning
- Material Purchasing
- Hospitality Depot
- S&OP
- MRP/Purchasing
- Available-to-Promise

Why Change?
- System has become highly complex
- Manually intensive & data latency
- Highly customized and interfaced
- New Software Economically Attractive

Benefits
- Simplify Business Process Design
- Increase productivity & data accuracy
- Once source of truth for planning
- Future of the Digital Supply Chain
Organizational Scope

**Directly Impacted Business Groups**

Directly impacted groups are those who have day-to-day interaction with the systems being replaced (Kinaxis, Demantra, Oracle ASCP).

**Who Is Impacted?**

- Demand Planning
- FG Supply Planning
- RM Supply Planning
- Master Scheduling
- Depot Planning

**What Will Change?**

- New application to learn
- Process Re-design
- Operating procedure changes (SOP)
- Reporting Changes
Demand Management Cloud

Key Solution Elements

Key Features
- Unified demand and supply planning
- Exception based process
- Manage exceptions using thresholds
- New product forecasting
- Advanced modeling
- Forecast Approval

Manage Sales History
- Sense and Analyze multiple demand signals
- Adjust for outliers
- View customer & location details
- Year-over-Year comparisons

Manage Forecasts
- Transparent statistical forecast results
- Units and % Overrides
- View forecast in units and dollars $
- Visibility of Sales Forecast
- Waterfall accuracy analysis of past forecasts
- Attach rate based forecast for features

Multi-Dimensional Views
- Item – Product Category
- Model - Class – Range
- Master Customer – Key Account - LOB
- Country - Region - Area
Supply Planning Cloud

Key Solution Elements

**Key Features**
- Common Dimensions and Hierarchies between Demand and Supply planning
- Rich set of User Interfaces
- Ready-To-Build
- Build Plan
- Material Plan
- Plan Comparison
- Rough Cut Capacity Planning
- Drop Ship planning
- Back to Back planning
- Outside Processing
- In Memory based Simulations

**Multi Planning Item Types**
- Configure to Order (CTO) items
- Standard items
  - End items
  - Raw Materials

**Plan by Exception**
- Inventory shortage exceptions
- Reschedule existing orders
- Lead time exceptions
- Drill down to planning details

**Safety Stock**
- Statistical calculation of end items using forecast
- Item attribute days of supply
- User Defined safety stock

**Plan for Multiple Demand Inputs**
- Local Forecast from Demand Planning
- Customer sales orders (&PBO’s)
- Internal sales orders
- Safety stocks
Sales & Operations Planning (S&OP) Cloud

Key Solution Elements

Key Features
• Built-in best practices S&OP Processes
• Built-in aggregate supply planning
• Balance demand and supply
• Multi dimensional views
• Rough Cut Capacity Planning
• Plan Comparisons
• Consensus based forecasting
• Exception based process
• Revenue and Cost Tracking
• Built-in S&OP review dashboards incl. Product review
• Rapid in-line simulation

Manage Planning Cycles
• Rich out of box content – dashboards, analytics
• Process definition based templates
• Actions and decisions based
• Capturing forecast assumptions and tracking
• Units and dollarized views
S&OP is a journey
Inspirage Maturity Framework

**Stage 1**
Reacting
- Business plan drive forecast
- Short-term forecast
- Aggregate S&OP Data
- Off-line Demand / Supply tactical balancing
- Volume focused
- Tribal knowledge dependency
- Manual Tools
- Silo focused

**Stage 2**
Anticipating
- Consensus Forecasting (volume and value)
- Capacity Constraints
- Demand, supply and inventory plans at aggregate level.
- Scenario planning using simulated plans
- New Product Plans
- Foundational dashboards
- Multiple sources of truth
- Conflicting metrics across functions

**Stage 3**
Capable S&OP
- Demand/supply tactical balancing on-line
- Financial projections – price, cost, inventory and margin projections
- IBP management dashboards & KPI suite
- Flexible Budgeting
- Supply Chain Segmentation
- Robust Long-Term Planning Processes

**Stage 4**
Optimized Planning
- Business simulation capability for demand shaping, financial reconciliation and cost to serve
- Demand Driven
- Product & Innovation Reviews
- Inventory Optimization
- Centers of Excellence
- Master Data Governance
- Digitization – IoT etc.
- Business wide focused
- Integrated suite of tools

**Stage 5**
Integrated Business Planning
- Plan drives the business, enabled and linked to strategy
- Market Driven
- Extended Integrations:
  - New Product Introduction
  - Extended / Integrated Analytics (Control Tower)
- Network Optimization
- Extended Enterprise focused
- IBP management reviews not an “event”
- Digitization – IoT etc.
- Business wide focused
- Integrated suite of tools

**Incremental Value**
- Efficiency
- Effectiveness
- Optimization

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Cloud Implementations Are Different
Process Harmonization and Change Management are key

Solution Driven
- Understand capabilities
- Leverage built-in leading practices
- Emphasis on adapting to gaps

Adapt Processes
- Highly-configurable options
- Shorter test cycles
- Predictable results

Iterative
- Frequent visualization of solution
- Ability to inject changes
- Better understanding of solution prior to testing

Incremental
- Shorter implementation cycles
- Multiple wins
- Change over time

What do you want? vs. Will this work?
- Can we customize? vs. Is it configurable?

When can we see it? vs. Ready to try again?
- Are we done yet? vs. What’s next?
Process – The Right Sequence is Important

Source: “Managing Complex Change”, Ambrose 1987
Change Management

It’s more than just system implementation. It is about achieving **business transformation** through successful adoption of simplified processes and new capabilities.

Organizational Change Management (OCM) Benefits

- Reduced negative impacts of change on the business (organizational structures, policies, business processes, and employees)
- Increased employee commitment to change
- Increased speed of adoption to new technology
- Reduced project risk (on time, on budget)
- Maximized business results, achieving the project ROI
Establish a Center of Excellence

- **Governing**: High-level decision making power over the direction of the business and IT initiatives
- **Improving**: Continuous improvement across the different business and extended enterprise
- **Supporting**: Collaborate with internal and external partners across the business
- **Measuring**: Performance measurement across the S&OP processes with improvement initiatives

**Self Funding**

**S&OP COE**

**Sustaining**
WHERE WE ARE HEADED & LESSONS LEARNED
Data is crucial

Collaborative Systems for Cross Functional Discussions

Recurring Monthly Process

1. Week 1
   Innovation & Demand Review

2. Week 2
   Supply Review and Balance Supply and Demand

3. Week 3
   What-if Scenarios and Trade-Off Analysis

4. Week 4
   Executive Review and Monthly Cycle Output

Operational Systems for Functional Silos

Traditional ERP

Aggregate Planning

Detailed Planning
**Recommendations & Next Steps**

**Recommendations**
- Develop vision and principles statement
- Implement a true cross functional team
- Data and reporting are critical
- Tie Units to $

**Next Steps - Cloud**
- Move to Cloud – provide one single source of truth
- Integrated Business Planning simplification
- Reduce complexity and improve decision making
- Leverage advanced features as process mature and new feature are enabled in cloud
Thank You !
Planning Cloud Project Benefits

To the End-to-End Supply Chain Planning Process

**Demand Planning**
- ✔ Simplified forecasting – no feature forecast
- ✔ Forecast Accuracy Tracking
- ✔ Week-to-week visibility to demand changes
- ✔ Weekly visibility to demand sources
- ✔ Dollarized Forecast
- ✔ Use of demand time reduces forecast maintenance

**Supply Planning**
- ✔ Dedicated application to constrain & balance demand
- ✔ Transparent feature planning using planning percentages
- ✔ Visibility to critical plant capacities (RCCP)
- ✔ Comparison of TLS change impacts to production
- ✔ System generated demand signal for USL and Jabil
- ✔ Time fences to protect demand signal stability

**SLM / Materials**
- ✔ Stable build schedule for driving shortage management
- ✔ Single source of truth for the material plan
- ✔ Visibility to monthly TLS change impacts to suppliers

**Master Scheduling**
- ✔ Ability to build and commit to a stable MPS
- ✔ Plant-level RCCP visibility
- ✔ Comparison of TLS change impacts to production
- ✔ Exception-driven capabilities for the MPS

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**Cleanly Integrated & Transparent Demand Signal**
- ✔ Only one integration point
- ✔ Single demand signal driving supply actions

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