

# Operations Distinction

Your Source for Production, Purchasing, Inventory Control, Logistics and Quality Management



A BEHIND THE SCENES LOOK AT  
CUSTOMER SERVICE

FUNDAMENTALS THAT EVERYONE  
SHOULD KNOW TO CREATE  
FLEXIBILITY AND CURTAIL  
COSTS

# BEHIND THE SCENES

Operations Distinction *Consulting*

# WHAT DO THEY HAVE IN COMMON?

- FOR ALL COMPANIES, CUSTOMER SERVICE DOMINATES OUR REASON TO BE IN BUSINESS
- COORDINATING SALES AND PRODUCT AVAILABILITY IS A CHALLENGE

# INVENTORY CONTROL

*You've just received your first HUGE order!  
Normal orders are for a dozen at a  
time and your new order is for 300 due ASAP!  
Your inventory says you have of 310 on  
hand. All right!!*

*Now, can you choose from the  
following what might happen when you go to  
fill the order?*

- a) *You find all 310 in your warehouse. You pack 300 up and ship them to your customer on time.*
- b) *You find only 265 in your warehouse. Your records show that you should have 310. You ask your entire team to stay late and help tear the warehouse apart and find them. You pay overtime, order pizza. After 4 hrs of searching, they find all 310!*
- c) *You find all 310 but when you start to pack them up to ship, you notice that 53 of them are damaged. You place a rush order with your supplier but they won't deliver for 5 more weeks even if you pay extra to expedite them. You ship the customer 257 and backorder 43.*
- d) *The 43 due in 5 weeks is delayed another 6 weeks for a total of 11 weeks! Your supplier has a minimum order quantity of 100. The customer cancels the order just as you receive the 100.*
- e) *All of the above*

# WHAT IS INVENTORY?

INVENTORY IS DEFINED AS GOODS AND MATERIALS THAT A BUSINESS HOLDS AVAILABLE IN STOCK

IT IS AN ASSET

IT IS DOLLARS SPENT THAT CAN NOT BE USED ON OTHER BUSINESS NEEDS

# WE HOLD INVENTORY BECAUSE

- LEAD TIME — THE TIME IT TAKES TO REALIZE YOU NEED TO BUY SOMETHING TO THE TIME IT IS IN-HOUSE AND READY FOR USE
- UNCERTAINTY — UNPREDICTABLE DEMAND, SUPPLY OR MOVEMENT OF GOODS
- ECONOMIES OF SCALE — BUY LARGER QUANTITIES AT A LOWER COST PER UNIT

# Count and Reconcile Inventory on a Preset Schedule

COUNT EVERYTHING  
EVERYWHERE MONTHLY  
(PHYSICAL INVENTORY)



CYCLE COUNTS + ANNUAL  
PHYSICAL INVENTORY



CYCLE COUNTS ONLY  
NO PHYSICAL INVENTORY

# CONSIDER AN ABC ANALYSIS

- “A CLASS” = 20% OF THE TOTAL ITEMS AND 80% OF THE TOTAL VALUE
- “B CLASS” = 30% OF THE TOTAL ITEMS AND 15% OF THE TOTAL VALUE
- “C CLASS” = 50% OF THE TOTAL ITEMS AND 5% OF THE TOTAL VALUE

# INVENTORY TURNS

$$\text{INVENTORY TURNS} = \frac{\text{COST OF GOODS SOLD}}{\text{AVERAGE INVENTORY VALUE}}$$

$$\text{WHERE COGS} = \text{BEGINNING INVENTORY VALUE} + \text{INVENTORY PURCHASED WITHIN THE PERIOD} + \text{COST OF PRODUCTION WITHIN THE PERIOD} - \text{ENDING INVENTORY AT THE END OF THE PERIOD}$$

$$\text{WHERE AVERAGE INVENTORY} = \frac{(\text{BEGINNING INVENTORY} + \text{ENDING INVENTORY})}{2}$$

# NUMBER OF DAYS ON-HAND

$$\# \text{ DAYS INVENTORY} = \frac{365}{\# \text{ INVENTORY TURNS}}$$

$$\text{NUMBER OF DAYS} = \frac{365}{6 \text{ TURNS}} = 60.83 \text{ DAYS ON-HAND}$$

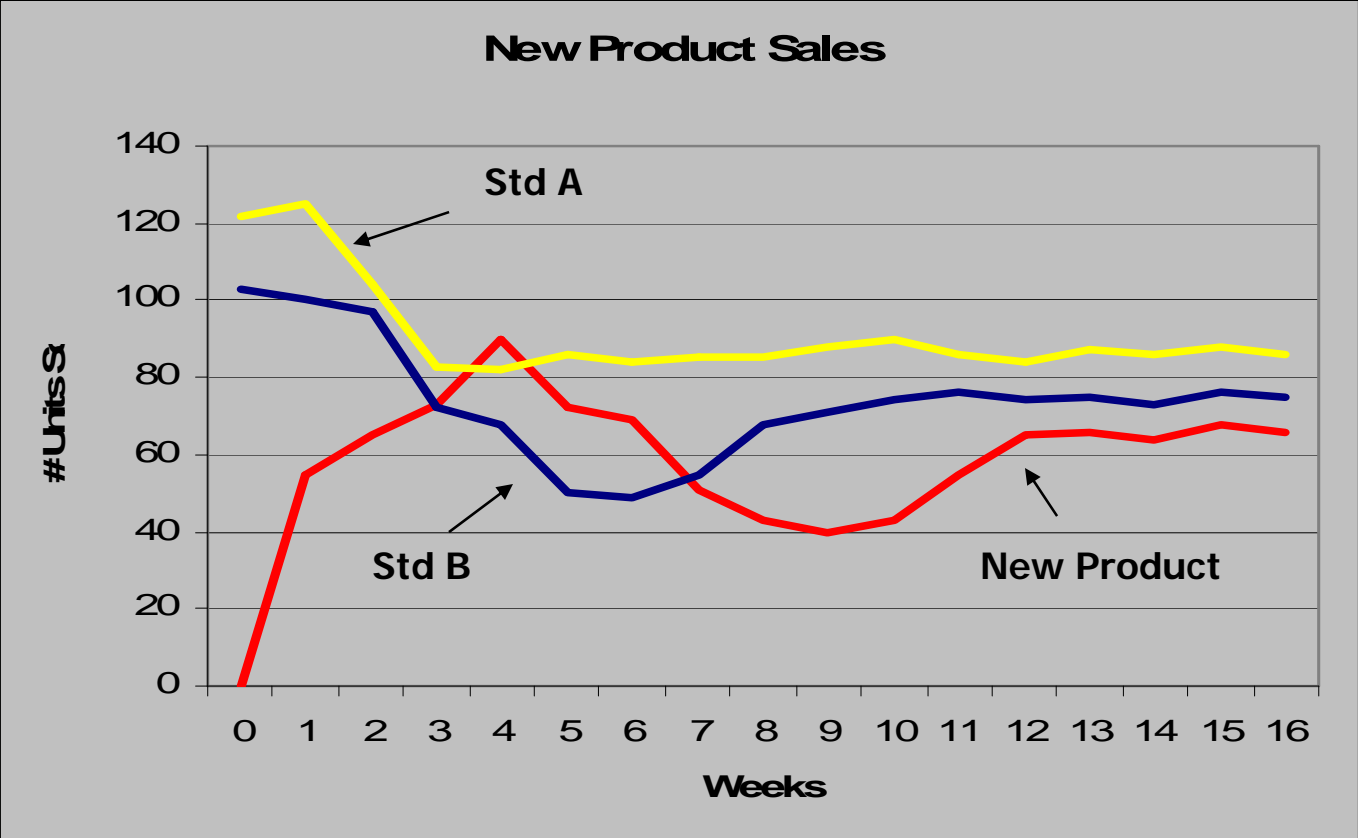
# FORECASTING

1. *DO YOU REALLY KNOW WHAT WAS SOLD TO WHOM?*
1. *DO YOU KNOW WHY THEY BOUGHT YOUR PRODUCT FROM YOU?*
1. *DID YOUR RECENT PRODUCT PROMOTION BRING IN INCREMENTAL SALES OR JUST HELP DISTRIBUTORS STOCK UP AT A LOWER PRICE?*
1. *ARE YOUR SALES SEASONAL OR CYCLICAL?*
1. *IS THERE A GROWTH TREND DEVELOPING IN THE SOUTHEAST USA?*

# New product sales characteristics



# New product sales characteristics with other goods - Cannibalization



# FORECASTING

- PORTION SIZE
- PERISHABLES
- PRONE TO OBSOLESCENCE
- PROMOTIONS & SPECIALS
- FIRE SALES
- NEW MARKETS
- SEASONALITY
- CYCLICAL PATTERNS
- BACKORDER
- LEADERSHIP ADVISORY BOARD

# FORECASTING

- MARKET SHARE
- TRENDS OR PATTERNS
- GROWTH CURVES
- PROBABILITY STUDIES
- “WHAT IF ANALYSIS”
- SIMULATIONS
- SURVEYS
- FORECAST VS ACTUAL

# PURCHASING

# OVERSEAS

WHILE THE PRICE IS RIGHT – THERE ARE CHALLENGES

LANGUAGE

TIME ZONES

CULTURE

TRANSPORTATION

LARGE MINIMUMS

CUSTOMS

LONG LEAD-TIMES

QUARANTINE

TARIFFS

INSURANCE

INFLEXIBILITY

INVENTORY CARRYING COSTS

FOLLOW-UP

CUSTOMS

DUTIES

# PURCHASING

# OVERSEAS

*“hidden costs, taken together, can add an extra 24% to the cost of a product manufactured in China”* SAYS MICHELLE MANISCALCO.

FURTHERMORE, HE STATES *“outsourced product quality is less than that of domestic products (and) payment is often based on the number of units completed and any finished unit is considered a ‘good unit’...The study estimates that quality defects have an average impact of 4% of product costs”*

MANISCALCO, MICHELLE, “MANUFACTURING IN CHINA? THE TRUE COST MAY SURPRISE YOU”, *INJECTION MOLDING*, NOV 1, 2-004

PURCHASING

**ALTERNATIVES** TO  
LOW-COST COUNTRY DIRECT  
SOURCING

- **BROKERS**
- **MIXED BAG**
- **MINIMIZING DIFFERENTIATION**
- **CONSORTIUMS**
- **LOCAL SUPPLIERS**

# PURCHASING

## KNOW YOUR COMMODITIES

- POLITICS — ECONOMY — NATURE
- EXCHANGE RATE
- CULTURE
- GLOBAL AVAILABILITY

# PURCHASING

## YOU AND YOUR SUPPLIERS

- KNOW YOUR ABILITIES — “WHAT IF” SCENARIOS
  1. BUDGET (20% GROWTH)
  2. 50% GROWTH
  3. 100% GROWTH
  4. 20% DECLINE

# PURCHASING

## YOU AND YOUR SUPPLIERS

- UNDERSTAND YOUR SUPPLIER'S ABILITIES
  1. % OF REVENUE
  2. CURRENT & MAXIMUM CAPACITY
  3. COMMITMENT FROM YOU TO ACT
  4. NON-INVOICED INVENTORY
  5. VOLUME DISCOUNTS, BUNDLING

# PURCHASING

## YOU AND YOUR SUPPLIERS

TALK WITH YOUR SUPPLIERS – A LOT!!!

1. SHARE YOUR BUSINESS OBJECTIVES
2. SHARE GROWTH AND/OR DECLINE PROJECTIONS
3. ASK FOR IDEAS
4. WIN – WIN OBJECTIVE

REMEMBER YOUR REVENUE LOSS IS A  
DECLINE IN THEIR REVENUE STREAM

# WEBSITES

- WAREHOUSE MANAGEMENT SYSTEMS — [WWW.CAPTERRA.COM/WAREHOUSE-MANAGEMENT-SOFTWARE](http://WWW.CAPTERRA.COM/WAREHOUSE-MANAGEMENT-SOFTWARE)
- FORECASTING SYSTEMS — GOOGLE “DEMAND FORECASTING SOFTWARE”
- PURCHASING SYSTEMS - [WWW.CAPTERRA.COM/ENTERPRISE-RESOURCE-PLANNING-SOFTWARE](http://WWW.CAPTERRA.COM/ENTERPRISE-RESOURCE-PLANNING-SOFTWARE)

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