Ten Worst (and some Best) Demand Forecasting Practices That Impact Forecasting Performance

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APICS – Northern NJ Chapter, April 14, 2011

Agenda – A Journey Through CPDF Certification

- Embrace "change and chance" while creating more *flexible demand forecasting* and planning processes

- Realize collaborative forecasting as a key component in achieving *excellence in demand forecasting* and planning

- Recognize standards and checklists as an essential ingredient to enhancing professionalism in forecaster development while achieving greater *efficiencies in demand cycles*.
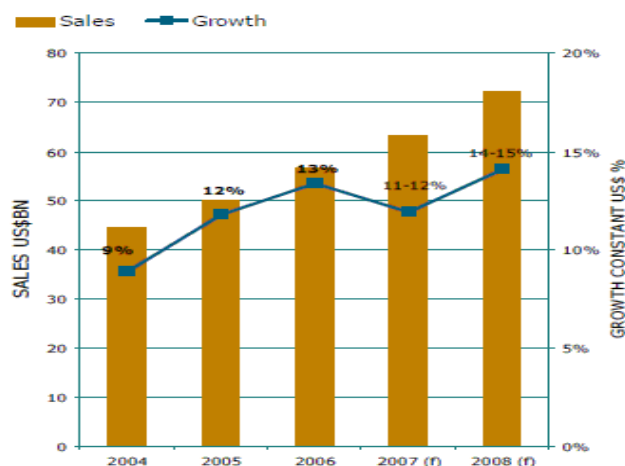
TOP 8 2008 generics sales in top eight markets expected to reach $70-74bn, with growth between 14-15%

Sales — Growth

Key Points

— $20bn at risk for patent expiry in 2008, $15bn in the US

— Part D and generic sampling are encouraging utilization of generics in US

— Generics drivers in Japan, include TV advertising by generics companies to increase awareness and lessen perception of inferiority

— Biosimilar EPOs launch in Europe in 2007; impact will begin to be felt in 2008

— Italy & Spain are top of EGMA's list for improving generic penetration levels

Source: IMS Health, Generics Market Prognosis, Sep 2007

2008 EyeforPharma Forecasting Excellence • April 3, 2008

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Is a Forecast "Just a Number"?

Credible forecasting means never having to say you are certain

14% -15%

plus or minus 0% or what ???

A Forecast Is NOT Just A Number!

14.5%

(plus or minus 0.5%)
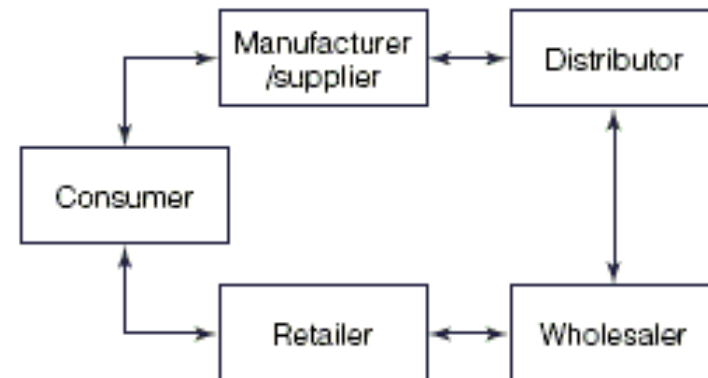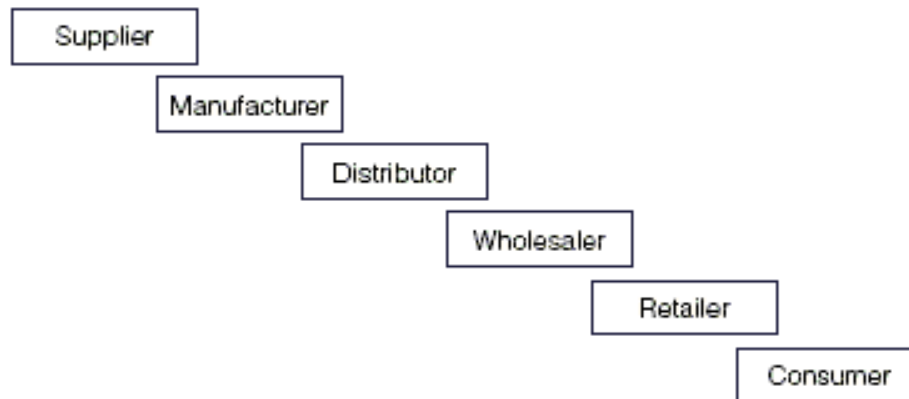
14.5%

(plus 2% or minus 1%)

What is Demand Forecasting and Planning?

- **Demand Forecasting** is all about CHANGE and CHANCE
- Revolves around predicting future quantities demanded by consumer/customer with the ability to pay
  - Exclude forecasting natural disasters (floods, earthquakes, etc.), and forecasting weather, stocks and sports
  - Not to be confused with "Planning" as a business function
- **Demand Planning** is about action to create and shape demand for the business
- **Demand Management** is about preparing for and providing of the *right* amount of the *right* product to be in the *right* place at the *right* time at the *right* price

Traditional and Integrated Supply Chains

Supplier

Manufacturer

Distributor

Wholesaler

Retailer

Consumer

```
         ┌──────────────┐      ┌──────────────┐
         │ Manufacturer │◄────►│ Distributor  │
    ┌───►│  /supplier   │      │              │
    │    └──────────────┘      └──────────────┘
┌──────────┐                          ▲
│ Consumer │                          │
│          │                          ▼
└──────────┘                   
    │    ┌──────────────┐      ┌──────────────┐
    └───►│   Retailer   │◄────►│  Wholesaler  │
    ◄────│              │      │              │
         └──────────────┘      └──────────────┘
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Worst Practice #1
Not separating forecasting from planning

- *Deriving demand forecasts from a Plan*
  - ☑ *Sales management sets a target based on sales targets and compensation*
  - ☑ *Marketing management sets a target based on planned promotions*
- *Constraining supply to 'make the numbers'*
  - ☑ *Limit sales forecasts to numbers you can achieve with inventory*
  - ☑ *You can do this even with a good demand forecast*

  Bad practice becomes self-fullfilling prophecy

Worst Practice #2
Having unrealistic accuracy expectations

1. Not separating forecasting from planning

2. Gaming metrics -

☑ SKUs (subaggregates) tend to be less accurate than product level forecasts (aggregates)

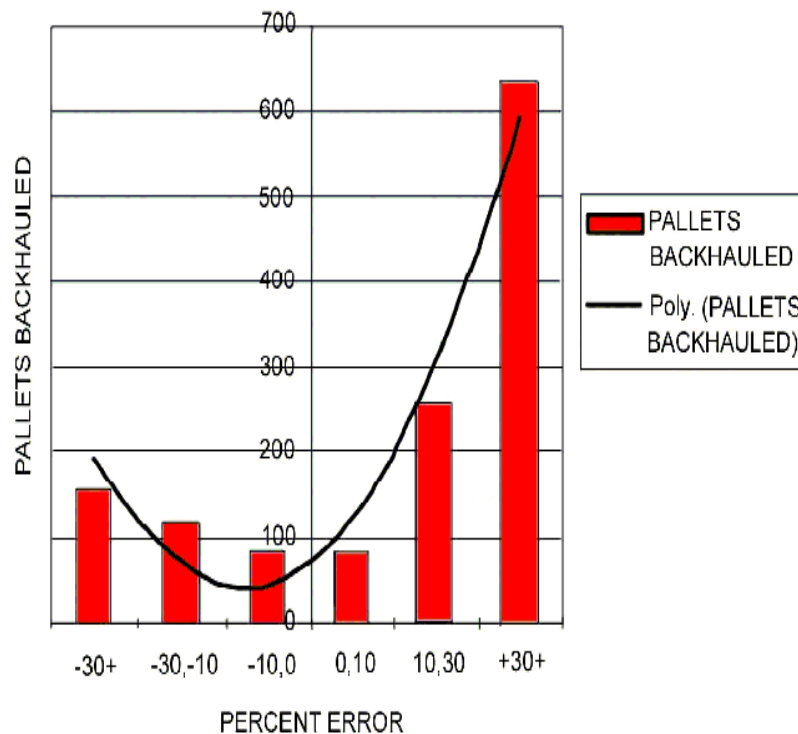☑ Forecaster reports results only at the most aggregate level

Bad practice because what gets measured gets done

Best Practice: Evaluate Accuracy and Performance Metrics

BACKHAULS VS FORECAST ERROR

Worst Practice #3
Blaming the forecast on all business woes

> 1. Not separating forecasting from planning
> 2. Gaming metrics

3. Not balancing demand forecasts with supply planning and financial objectives

- ☑ No effective S&OP process in place
- ☑ Downstream users of forecasts are ignored
- ☑ Customer service, order fill rate,
    revenue generation
    and profit suffers

Bad practice because there is lack of collaboration

Best Practices Requires Collaboration Among Peers

Distribution, geo-level forecasts by SKU in cases or plant-level forecasts by SKU in units

Manufacturing

Regional-level forecasts by division in sales dollars and margins

Finance

Marketing

Brand-level forecasts by channel and in sales volumes

Sales

Account- or regional-level forecasts by product category in sales dollars
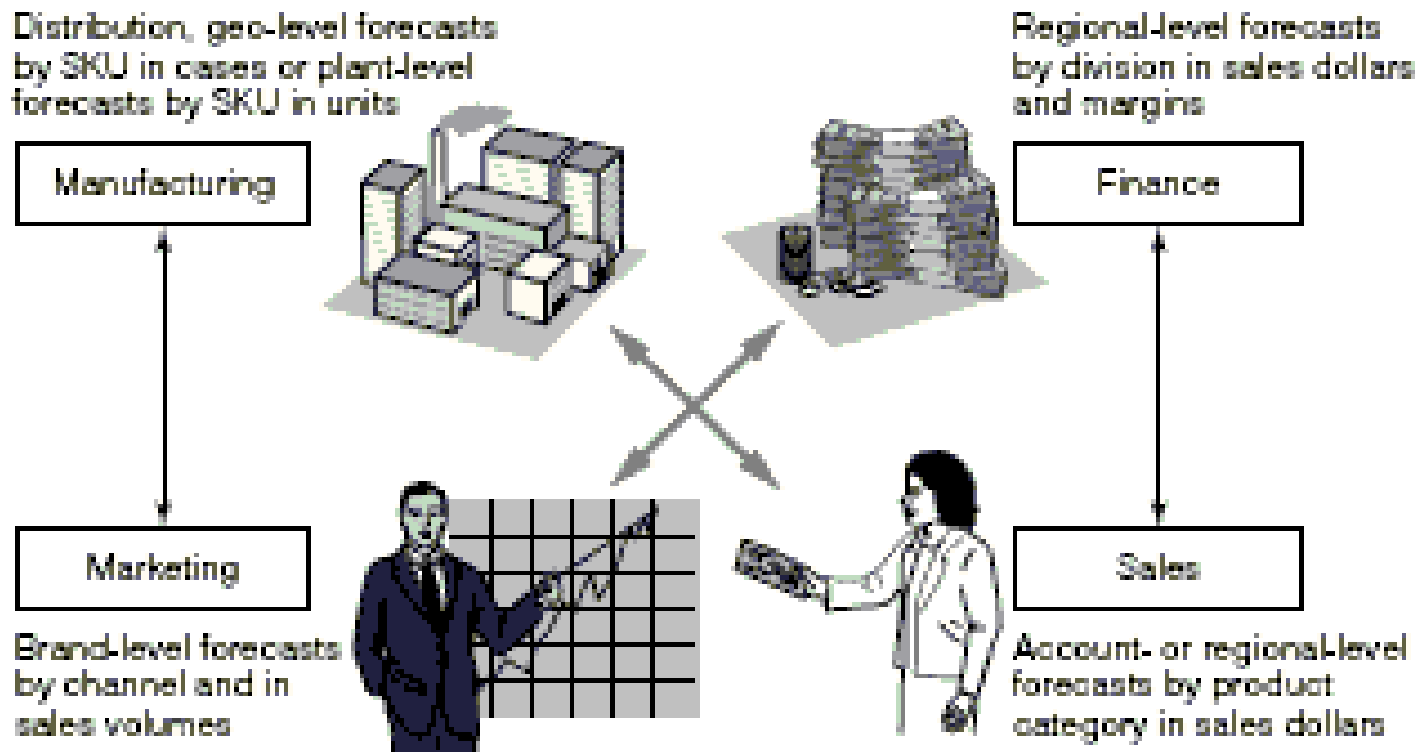
Worst Practice #4
Not minding the gap

1. Not separating forecasting from planning
2. Gaming metrics
3. Blaming the forecast on all business woes

4. Example: Demand for telecom services in a previous recession

- ☑ Operations forecasts 'business as usual' up-trending
- ☑ Demand is declining due to population migration
- ☑ Gap between supply and demand widens
- ☑ Crisis reaches attention of upper management

The changing environment has a significant impact on the brand, – which must be forecast ...

Shorter Product lifecycles	Reduction In Salesforce	Cuts in promotional spending

Internal pressures decreased marketing spend
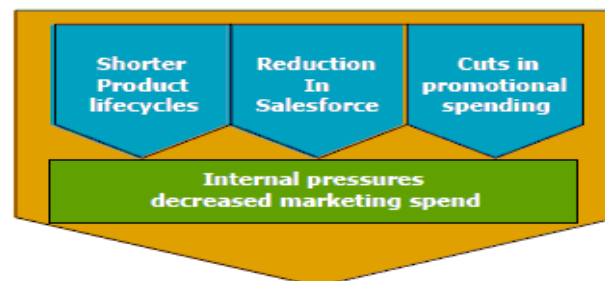
Increased challenges for Brand success

External pressures Increased barriers

Gaining in complexity	Increased regulations	Stricter Prescribing parameters	Increased barriers to access
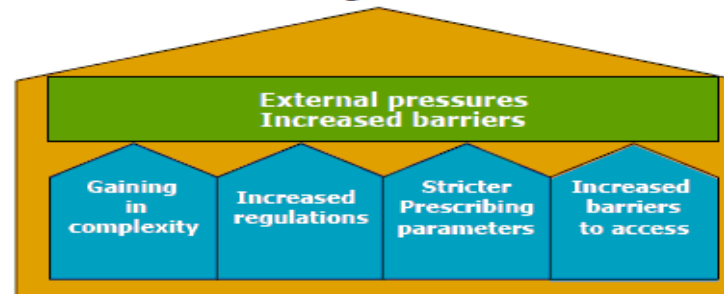
Worst Practice #5
Killing the messenger

1. Not separating forecasting from planning
2. Gaming metrics
3. Blaming the forecast on all business woes
4. Not minding the gap

5. Example: Nike lost $400M

- ☑ Nike went live with much taunted demand forecasting system in 2000
- ☑ Nine months later it takes a massive inventory write-off ==> stock plummeted!
- ☑ Management claim: Automated forecasts were inaccurate ==> system's fault!
- ☑ Court case: inadequate data communication among systems and no management review of forecasts ==> $90M order of wrong shoes and 80M shortfall on popular shoes

Inadequate Data Framework Can Lead To Misuse of Demand Hierarchies
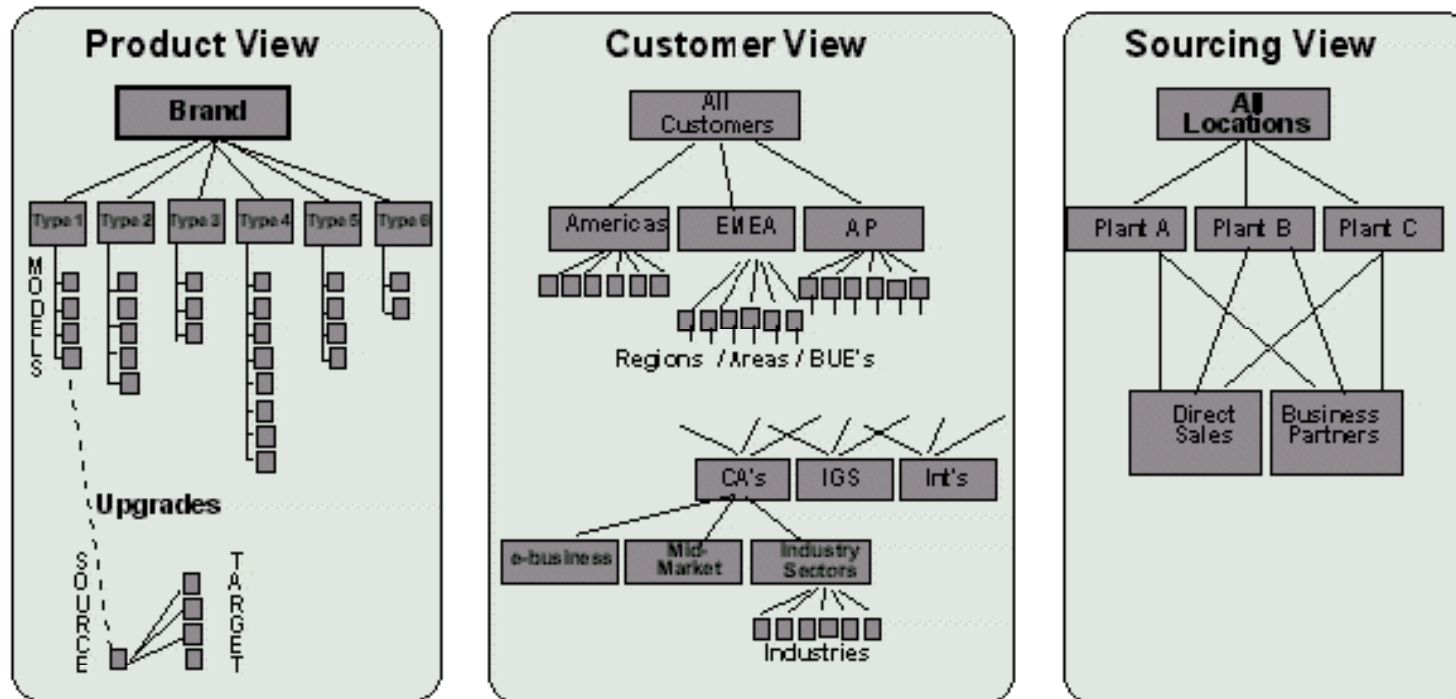
"They need the **SHIP** forecast for "Type 1" **upgrades** to "Type 2" for **EMEA** Manufacturing **Industry** Customers - sold through **Business Partners**?"

Best Practices: Create a Structured, Flexible Framework For Data But …

Global Budgeting and Forecasting

Revenue Audited Sales Process – Baseline Forecast
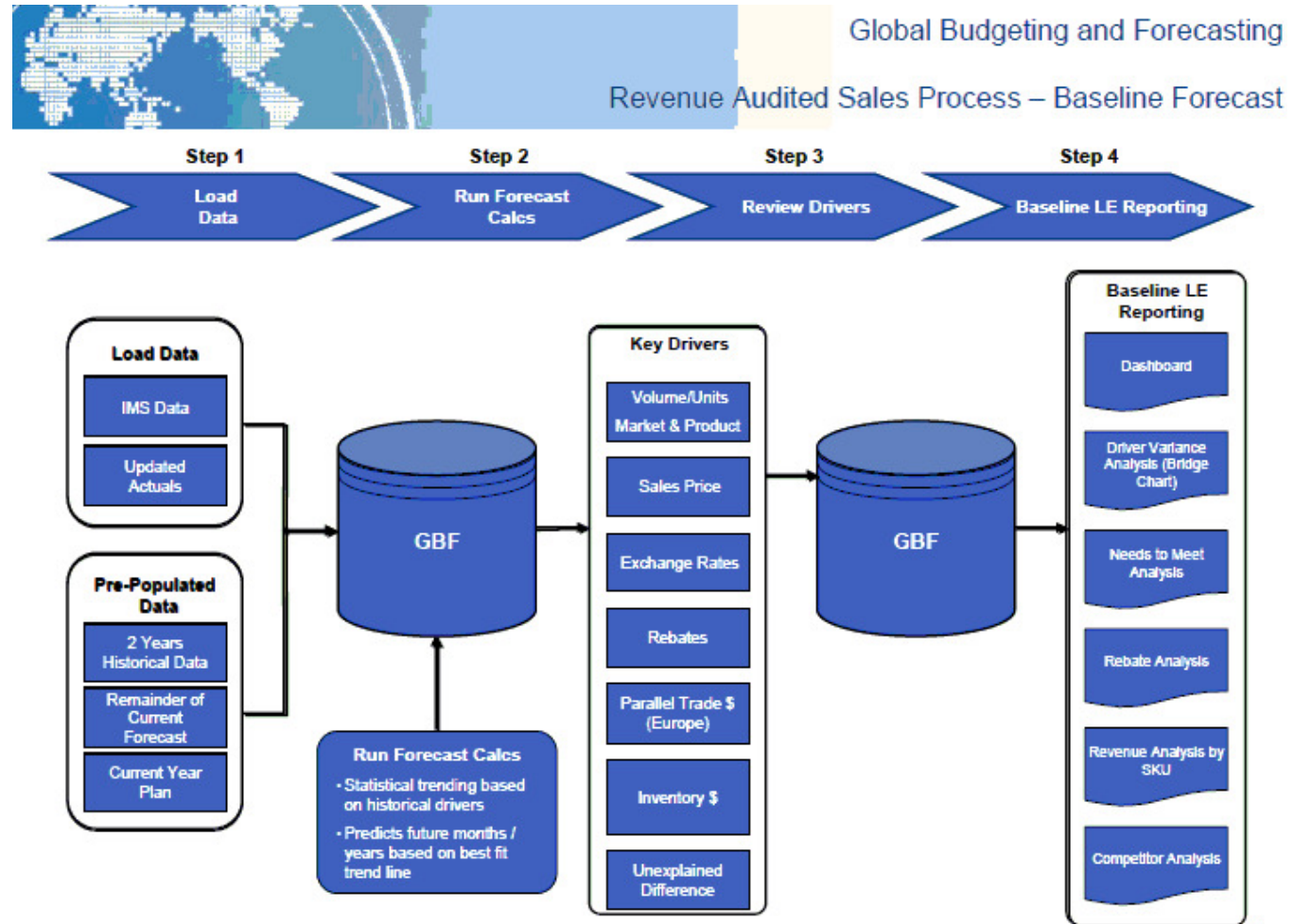
Worst Practice #6
Betting on the numbers

> 1. Not separating forecasting from planning
> 2. Gaming metrics
> 3. Blaming the forecast on all business woes
> 4. Not minding the gap
> 5. Killing the messenger

6. Hershey lost $112M on IT project
   - ☑ Adopted large-scale ERP system
   - ☑ Order processing hampered during busiest season

Best Practice: Forecasters Cannot Know Everything

They need to find a way to efficiently apply the information/knowledge of others

Worst Practice #7
## Different strokes for different folks

1. Not separating forecasting from planning
2. Gaming metrics
3. Blaming the forecast on all business woes
4. Not minding the gap
5. Killing the messenger
6. Betting on the numbers

7. Lack of assumptions common to all stakeholders
   - ☑ 'Silos' in the corporation all making their own 'forecasts'

Consider . . Who Are The Stakeholders?

- Executives
- Financial managers
- Sales and marketing managers
- Competitive strategy planners
- Production and inventory managers

The collaborative forecasting team
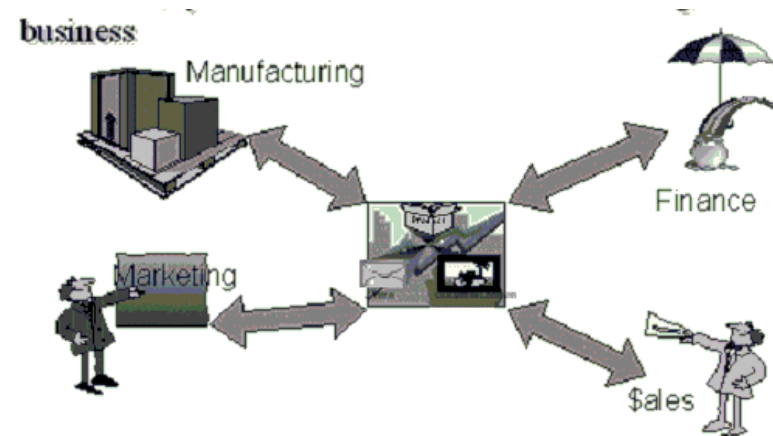
Worst Practice #8
Not seeing the forest for the trees

1. Not separating forecasting from planning
2. Gaming metrics
3. Blaming the forecast on all business woes
4. Not minding the gap
5. Killing the messenger
6. Betting on the numbers
7. Lack of assumptions common to all stakeholders

8. Winning the battle but losing the war

So, Where Should Demand Forecastıng and Planning Function Reside?
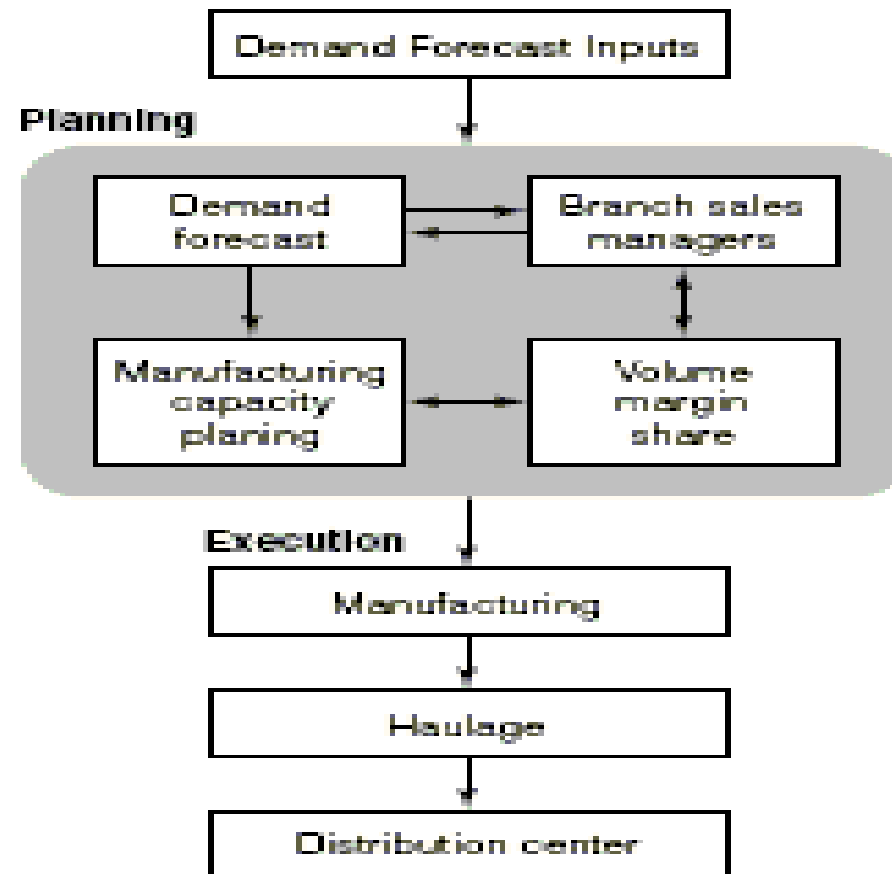
Where Does the Demand Forecasting Function Reside Today?

It depends on who does the survey

Survey 1

Operations/Production	26%
Sales	17%
Marketing	13%
Logistics	12%
Strategic Planning	12%
Forecasting Dept	8%
Others	8%
Finance	5%

Survey 2

Supply Chain	79%
Sales	3%
Customer Supp	3%
Marketing	0%
Other	15%

Best Practice: Establish an Efficient Forecasting Work-Flow Cycle

- Identify a Person-in-Charge (PIC)
- Involve the cross-functional organizations ('Silos")
- Determine the user needs for reports
- Set a firm time-table
- Communicate, communicate, communicate
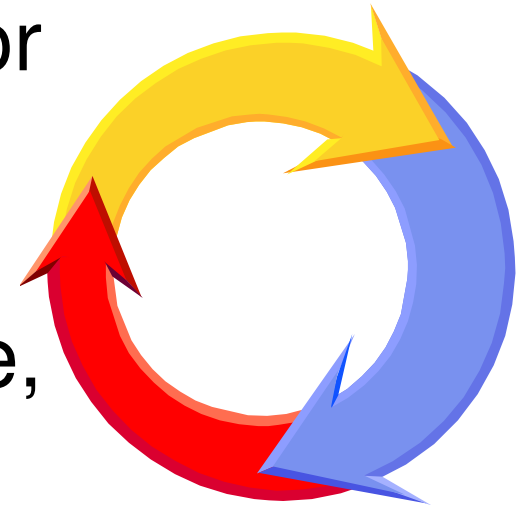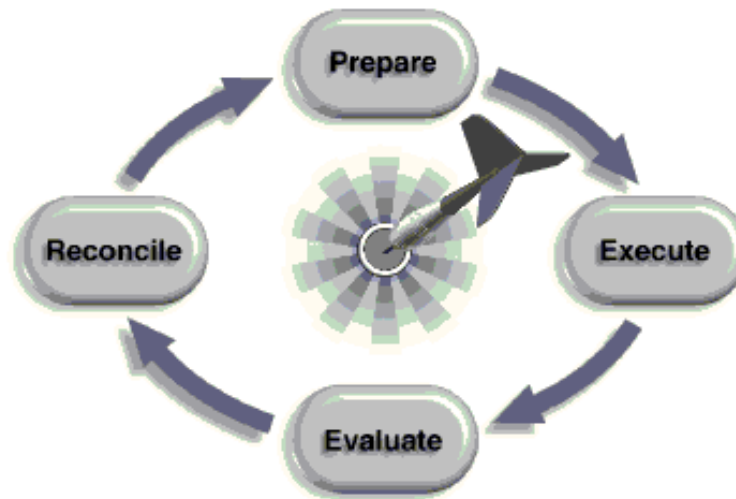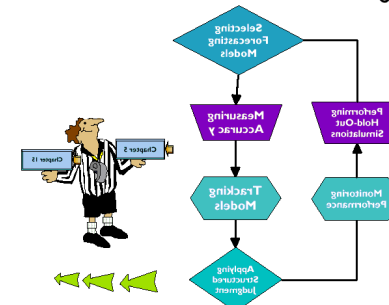
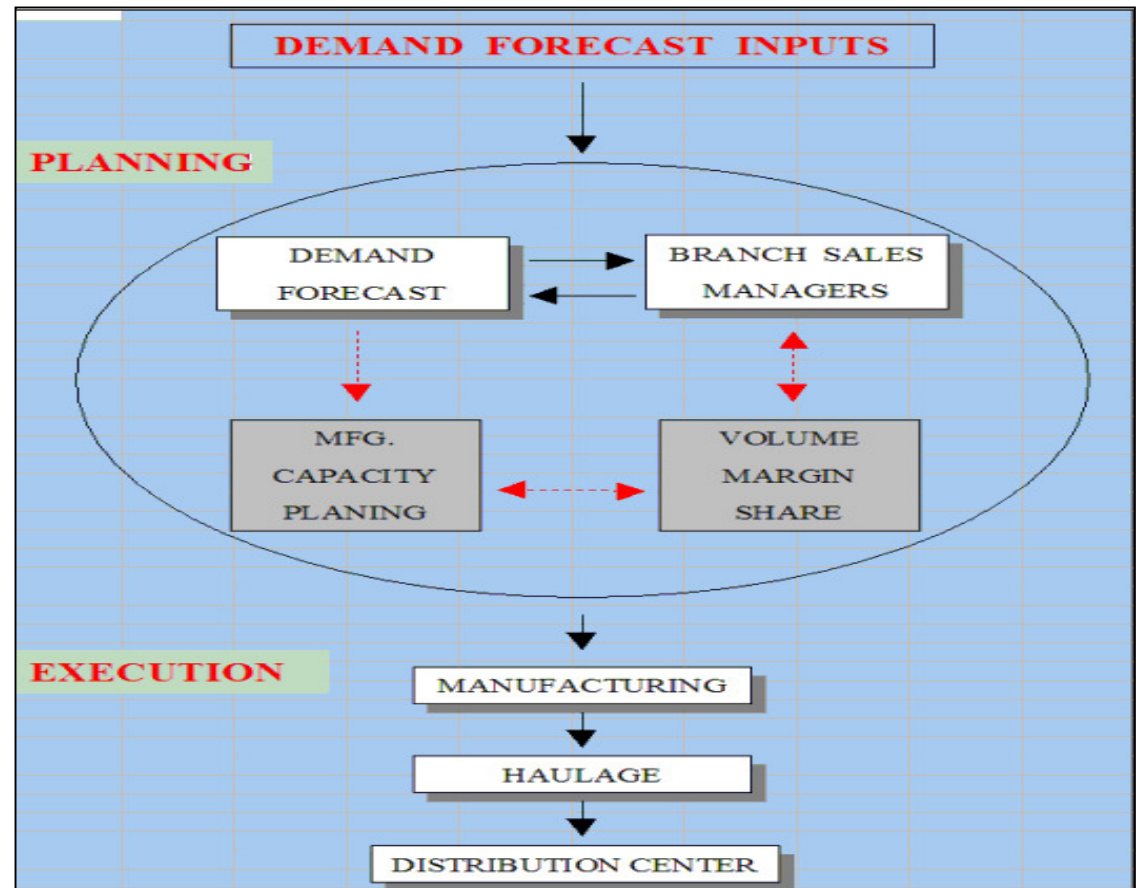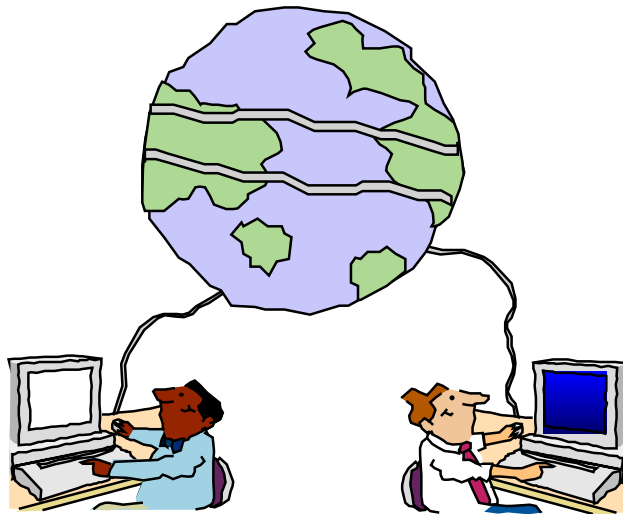# A Four-Step Demand Forecasting Cycle
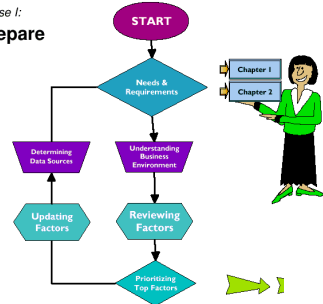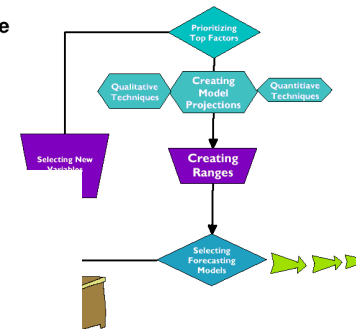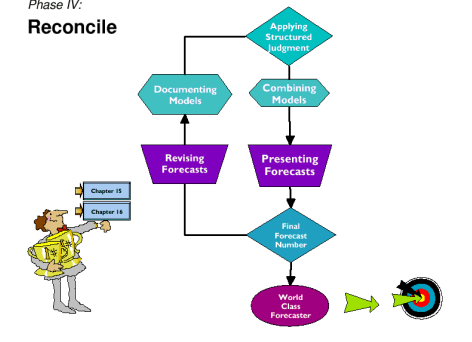
Worst Practice #9
False prophet

1. Not separating forecasting from planning
2. Gaming metrics
3. Blaming the forecast on all business woes
4. Not minding the gap
5. Killing the messenger
6. Betting on the numbers
7. Lack of assumptions common to all stakeholders
8. Winning the battle but losing the war

9. The model must be right

George Box: "All models are wrong, but some are useful"

Worst Practice #10
A little knowledge can be dangerous

Not separating forecasting from planning
2. Gaming metrics
3. Blaming the forecast on all business woes
4. Not minding the gap
5. Killing the messenger
6. Betting on the numbers
7. Lack of assumptions common to all stakeholders
8. Winning the battle but losing the war
9. The model must be right

10. Not enhancing forecasting knowldge in management, the sales force, and customers

Best Practice: Collaborate With Field Sales and Customer As A Source for Improving Demand Forecasts and Plans

DEMAND FORECAST INPUTS

PLANNING

| DEMAND FORECAST | → ← | BRANCH SALES MANAGERS |

| MFG. CAPACITY PLANING | ← → | VOLUME MARGIN SHARE |

EXECUTION

MANUFACTURING

HAULAGE

DISTRIBUTION CENTER

Best Practice : Reconcile the 'Final Forecast' through an S&OP Process
(or FS&OP or SI&OP, ...)

Reconciliation of the final forecast - To facilitate changes/revisions made to a forecast in any part of the demand hierarchy during the forecasting process requires a consistent, synchronized information flow throughout the business
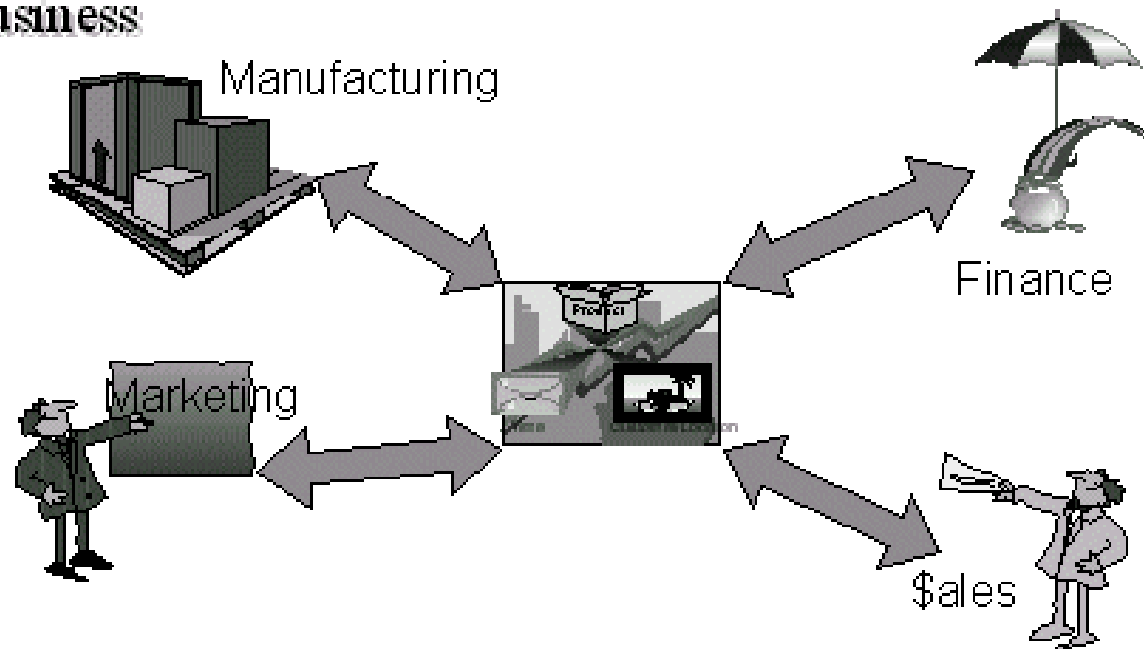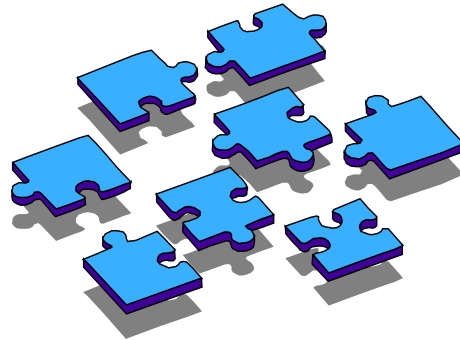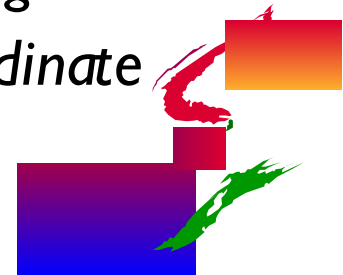
Achieving Best Practices
Completing the Puzzle

Formalize a forecasting process

Make forecasting an independent, unconstrained function

Separate planning from demand forecasting

Collaborate, coordinate and cooperate

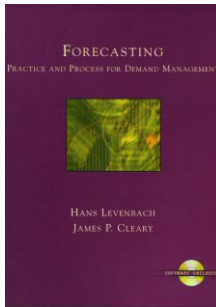# Things To Think About for Forecasting Collaborations

- Data Proliferation – Create an Integrated Data Framework that drives a Forecast Decision Support System

- Break Down Silos through Collaborative Forecasting (e.g. Budgeting and Rolling Demand Forecasts)
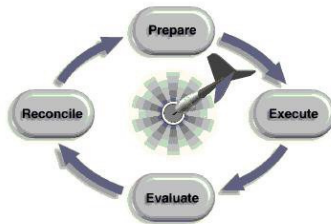
- Manage Complexity – Role of The Checklist

Resources and Additional Information

Levenbach, H. and J. P. Cleary (2005). *Forecasting: Practice and Process for Demand Management*, Duxbury Press. Can purchase through Amazon.com
Website: www.peerforecaster.com for free software tools

Certified Professional in Demand Forecasting (CPDF®)
Website: www.cpdftraining.org
Two-day hands-on, instructor-led training followed by self-study, e-learning spreadsheet problem sets (endorsed by IIF)

PEER Planner Forecast Decision Support System:
Aimed to streamline inefficient demand forecasting cycles
www.delphus.com

Questions or Comments?

Cell: (201) 400 8916

Lucy and the Chocolate Factory
by BagOfMagicFood
52,798 views
2:50

http://www.youtube.com/watch?v=4wp3m1vg06Q

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