APICS2014

Shipment Forecast Integrity & Accuracy

Alan G. Dunn, President
GDI Consulting & Training Company

GDI Consulting & Training
Making Breakthrough Changes at Breakneck Speed!

Oliver Wight Said It Better Than Anyone!



"It seems to me that management believes there are only TWO kinds of shipment forecasts:

- *Lucky*

or

- *Lousy!*

Surely with all the tools at our disposal today, we can improve on this condition!"

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Shipment Forecasting Is MOSTLY About Data



80% Data



10% Informed Opinion



10% Luck

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FOUR Major Questions When Addressing the Subject of Forecast Error Reduction

1. Can forecasts be improved?
2. What to measure?
3. What drives forecasts?
4. How should forecasting be "organized?"

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1. Can Forecasts Be Improved?

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Should We Try One of These Approaches?



- Model historical data better?
- Use more robust mathematical models?
- Stop allowing sales people to forecast?
- *Forget it!*… just stock a ton of inventory!

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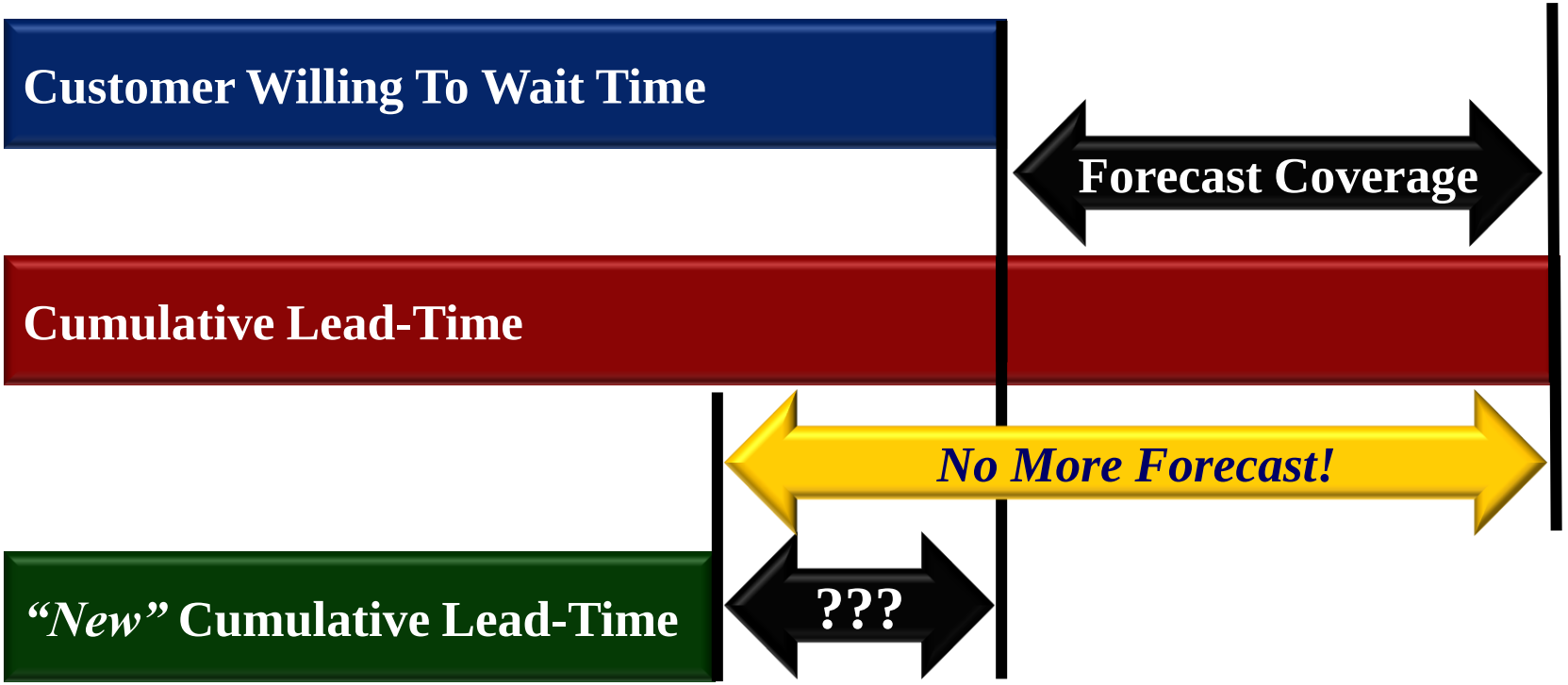
We Need To Understand Why We Forecast In the First Place

The cumulative lead-time is greater than the time the customer is willing to wait.



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The ABSOLUTE BEST Answer….



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The ABSOLUTE BEST Answer….



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2. What To Measure?

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What Do You Do When Your Forecast Is Wrong… *The Obvious Answer*

Forecast Again With New Data!



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Which Forecast Is the *"Measurable"* Forecast?

Early In Period 1, We Forecast Periods 2 Thru 6

Forecast Iteration 1	Period Forecast Demand Amounts									
Forecast From Period	1	2	3	4	5	6	7	8	9	10
1		200	210	200	300	200				
2										
3										
4										
5										
6										
7										
8										
9										
10										

Imagine the cumulative planning lead-time is 5 periods

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Which Forecast Is the *"Measurable"* Forecast?

Early In Period 2, We Re-Forecast Periods 3 Thru 6 + 7

Forecast Iteration 2	Period Forecast Demand Amounts									
Forecast From Period	1	2	3	4	5	6	7	8	9	10
1		200	210	200	300	200				
2			210	200	250	200	200			
3										
4										
5										
6										
7										
8										
9										
10										

Imagine the cumulative planning lead-time is 5 periods

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Which Forecast Is the *"Measurable"* Forecast?

Early In Period 3, We Re-Forecast Periods 4 Thru 7 + 8

Forecast Iteration 3		Period Forecast Demand Amounts									
		1	2	3	4	5	6	7	8	9	10
Forecast From Period	1		200	210	200	300	200				
	2			210	200	250	200	200			
	3				200	240	200	200	200		
	4										
	5										
	6										
	7										
	8										
	9										
	10										

Imagine the cumulative planning lead-time is 5 periods

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Which Forecast Is the *"Measurable"* Forecast?

Early In Period 4, We Re-Forecast Periods 5 Thru 8 + 9

Forecast Iteration 4		Period Forecast Demand Amounts									
		1	2	3	4	5	6	7	8	9	10
Forecast From Period	1		200	210	200	300	200				
	2			210	200	250	200	200			
	3				200	240	200	200	200		
	4					240	200	200	210	210	
	5										
	6										
	7										
	8										
	9										
	10										

Imagine the cumulative planning lead-time is 5 periods

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What is Period 5's Forecast Error?

Forecast Iteration 5		Period Forecast Demand Amounts									
		1	2	3	4	5	6	7	8	9	10
Forecast From Period	1		200	210	200	300	200				
	2			210	200	250	200	200			
	3				200	240	200	200	200	210	
	4					240	200	200	210	210	
	5						200	200	220	210	280
	6										
	7										
	8										
	9										
	10										

Actual Shipments = 260

Utilized Forecast = ___

Forecast Error =

Period 5's Forecast Error Is = ???

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The Answer Is… NEGATIVE 40!

Forecast Iteration 5		Period Forecast Demand Amounts									
		1	2	3	4	5	6	7	8	9	10
Forecast From Period	1		200	210	200	300	200				
	2			210	200	250	200	200			
	3				200	240	200	200	200	210	
	4					240	200	200	210	210	
	5						200	200	220	210	280
	6										
	7										
	8										
	9										
	10										

Actual Shipments =	260
Utilized Forecast =	300
Forecast Error =	(40)

Period 5's Forecast Error Is = (40)

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3. What "Drives" Forecasts?

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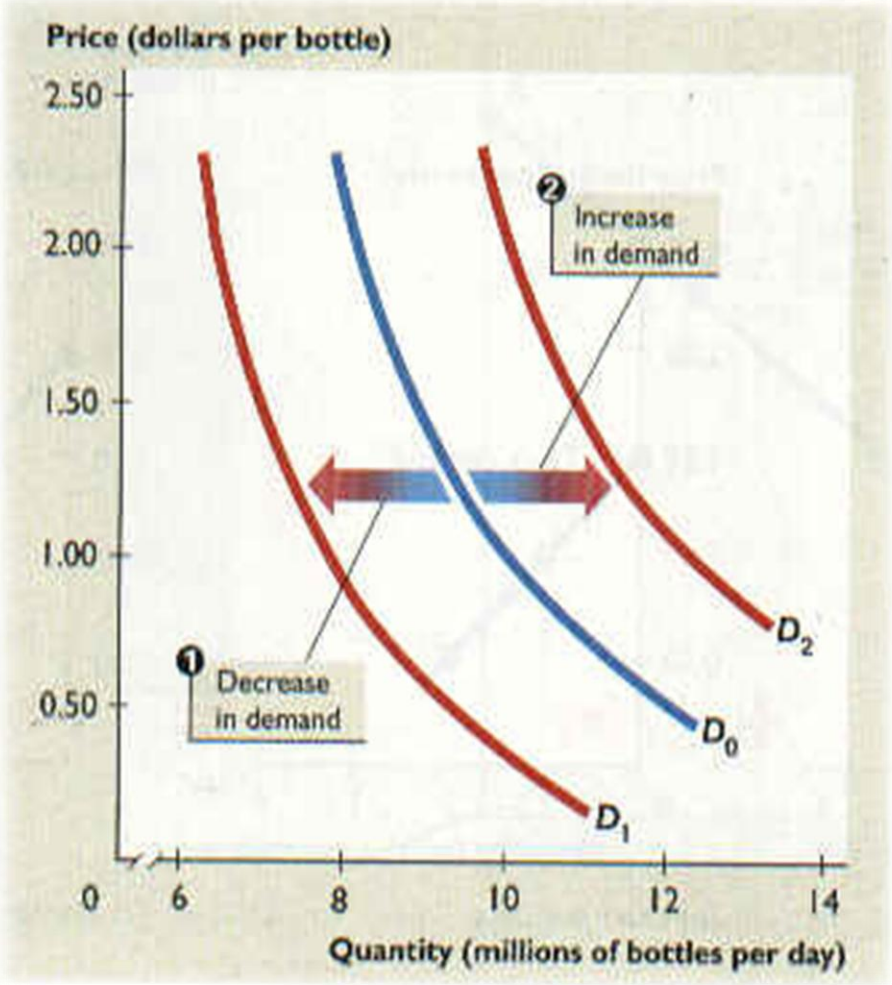
Know Your Demand's SIX *"Perpetrators"*

1. Market Perpetrators
2. Customer Perpetrators
3. Condition Perpetrators
4. Event Perpetrators
5. Sales Personnel Perpetrators
6. Disruptors



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4. How Should Forecasting Be "Organized?"

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A Forecast Is Mostly the *"Natural Result"* of FOUR Major Forecast Inputs

1. Historical Information (Past)
2. Current Information (Present)
3. Marketing Requirements Information (Future)
4. Chief Forecaster Judgment

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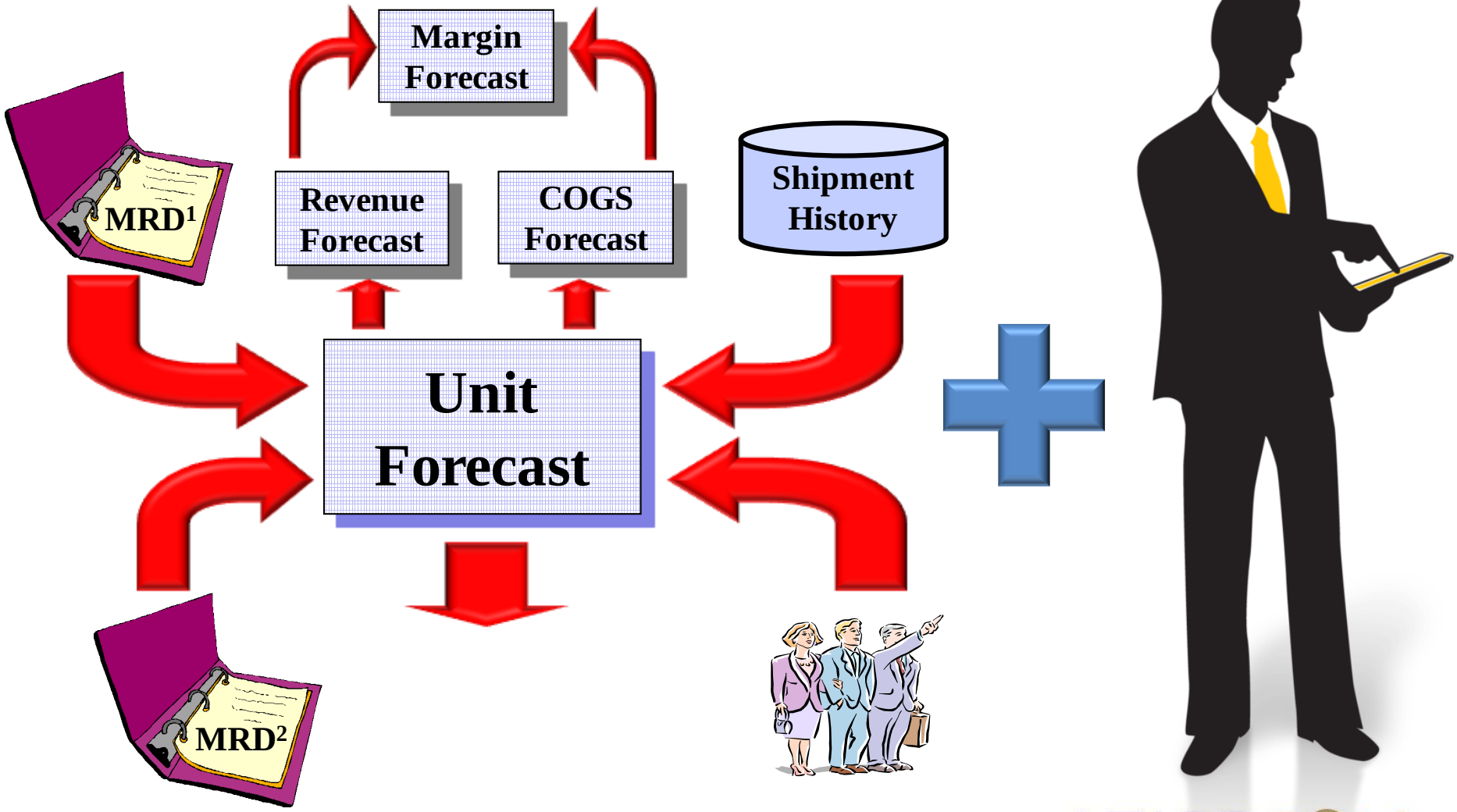
Forecasting CANNOT Be Executed Effectively Without a Defined Process & a *"Chief Forecaster"*



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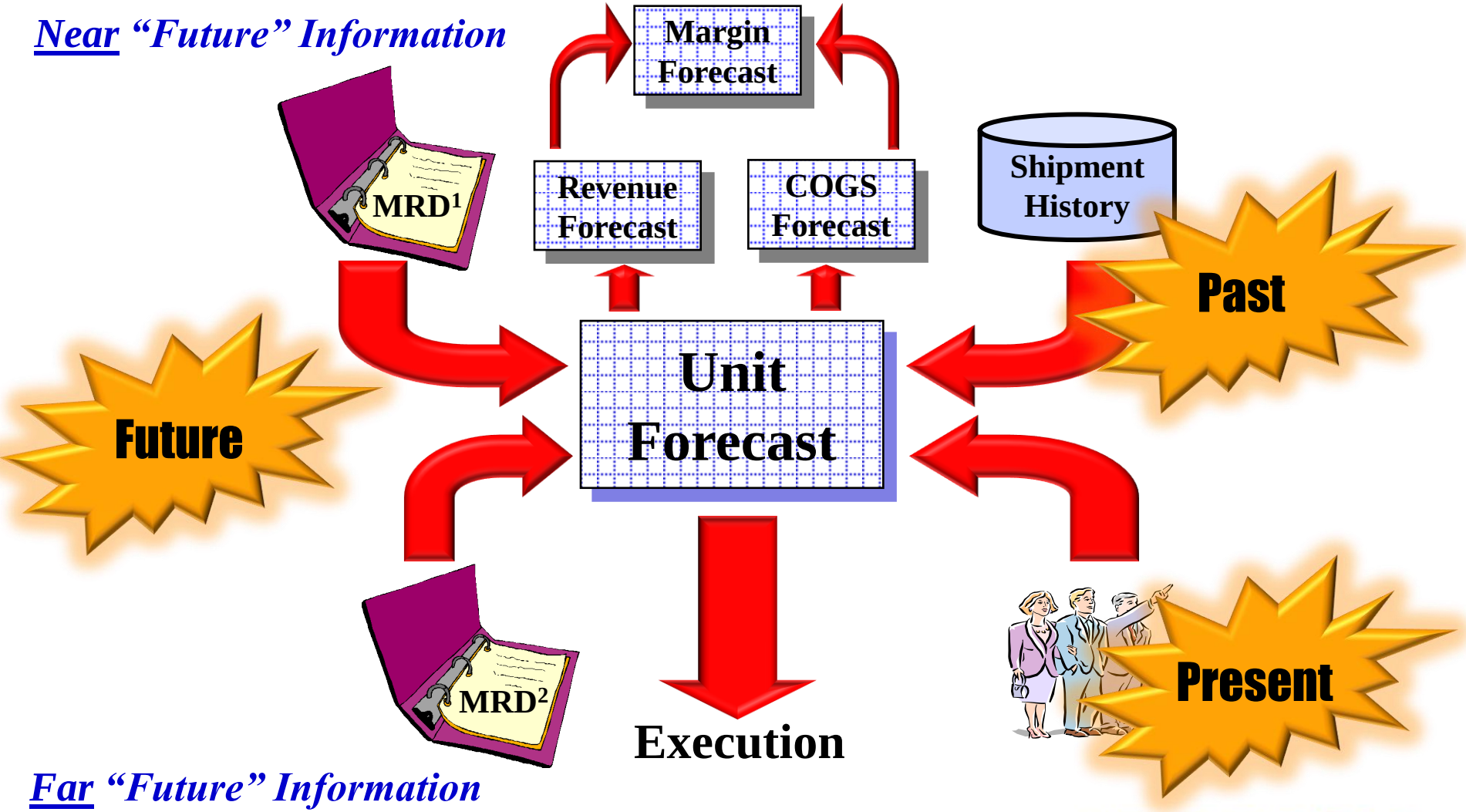
If Your Forecast Stinks, Maybe Its Your Forecasting PROCESS!



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Stop Thinking Your Sales Goal Is a Forecast!

Sales Goal = $2,300,000
(Set by the President)

Forecast = $1,900,000
(Set by the Chief Forecaster)

Oops! What does the Chief Forecaster do now?

A *"Sales Goal"* and a *"Shipment Forecast"* are NOT the Same Thing!

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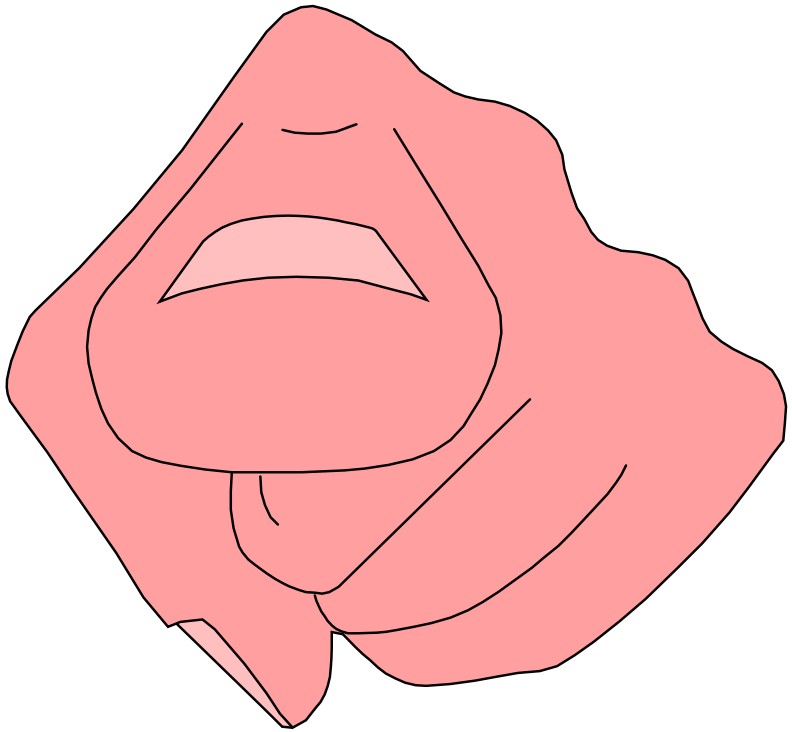
NEVER Lose Sight of This Truism…

All Forecast Error Ends Up In Inventory… and Inventory Is the GIANT Sucking Sound of Capital!



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Q&A

Presenter Contact: Alan G. Dunn, President

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140 North Maple Street, Suite 105
Corona, California 92880-6996 USA
(951) 736-1281
www.gdiconsult.com
agdunn@gdiconsult.com

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