The Differences Between Demand Forecasting & Sales Forecasting for Inventory Replenishment - Data Profits

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One of the questions that we get quite frequently is what is the difference between Demand Forecasting and Sales Forecasting? It seems that often the terms are used interchangeably. But once you understand the benefits between them, you'll realize how important the distinction is. Then the next logical question is how do you know which method your system uses?

In this letter, we review the difference between Demand Forecasting and Sales Forecasting for inventory replenishment. While at first glance they appear to be similar, their differences can mean significant disparity in forecast accuracy which dramatically impacts overall profitability resulting from over stock and out-of-stock scenarios. How do they differ? The difference, you'll see below, is not necessarily in the mathematical algorithms, but rather in the actual data points used to calculate the forecast.

Bottom line? An inventory replenishment system that is based on a demand forecast (demand driven) can reduce the risk of lost sales while improving service. This in turn delivers higher sales by connecting inventory levels with demand forecast.

Sales Forecasting is a measure of the market response; it is not a measure of market demand. The problem with sales forecasting is that simple; the most accurate sales forecast is only a measure of market response to what you had available. This is not accurate when considering future market demand for your replenishment. Issues with constrained supply, service levels, price and promotion are not analyzed correctly in Sales Forecasting. This is why sales forecasting is responsible for out of stocks and overstocks.

The 'Dim Erotic Sin' of Sales Forecasting Software
There are many software solutions in the marketplace today with the words 'Demand' and 'Forecasting' in the title or description. This marketing misdirection is a ploy to point companies toward older software products with the old bait and switch routine. Sales Forecasting takes the total data from sales to create a forecast. The reality of this misdirection is sales do not equal demand or put another way: past sales do not equal future demand. The word 'demand' in a software title, a marketing message and a good software sales person can misdirect even the smartest of executives. The problem with a sales forecasting methodology for inventory replenishment is that it is based on past market responses – a misdirection.
The belief that sales and demand forecasting are the same or that sales forecasting is the right tool for inventory replenishment is a total misdirect. While many claim they understand the differences and are not fooled by marketing and sales pitches, I ask the **question-did** ***you even catch my 'Dim Erotic Sin' misdirection?***

Differences Between Demand Forecasting and Sales Forecasting for Replenishment

The differences between demand forecasting and sales forecasting are significant when used for inventory replenishment. Two Big Issues with Sales Forecasting for Inventory Replenishment are lack of Lost Sales in the forecast process and lack of effective filtering of Promotional Sales before forecasting. Because Out of Stock delivers zero sales, a sales forecasting software solution will lower the forecast. This results in lower inventory being sent for replenishment which will result in additional lost sales.

This type of behavior will become a self-repeating funnel of lower sales, lower forecast, and out of stocks. If I sell 100 units a week in a four week month, the forecast should be 400 units a month. If Out of stock for one week results in 300 total monthly sales units; the sales forecasting software will lower the forecast below 400. The result of the new lower forecast will be less inventory sent for replenishment. In a different four week month, the same product with a 100 unit a week forecast is run on promotion in week 2 and sells 200 units that week, a 100% lift. The month end total sales for the product will be 500 units (weekly sales: 100+200+100+100).

A sales forecasting solution will raise the forecast based on the total sales of 500 being higher than the 400 unit forecast. Some sales forecasting solutions will totally ignore a sales week where promotions occurred. The system assumes the remaining weeks are normal and calculates the forecast based on 3 weeks – is that accurate? The reality is your regular demand is 100 units a week + X promotional units (if promoted) and skipping data is inviting problems.

It Only Gets Worse in Later Promotions

When you want to run the same promotion in six months, how do you replicate it? Since the promotion is mixed into regular demand, or worse is totally ignored, you have no basis to use for forecasting your future promotion. The results are out of stocks during your promotion. Does this sound familiar?

The Problem with Sales Forecasting is that if you are not feeding Demand into the Forecast Engine, then you are not using Demand!Demand Forecasting is the Act of Forecasting Market Demand
Too obvious for you? By now, some of you are asking the right question: What type of forecasting methodology are we using today? Ask yourself this question, does the software have a place where you can see sales broken out by demand type? Does the system have forecasting rules that include the demand types in the forecast logic? Your next question is what are the demand types?

Demand types include:
1. Regular Sales
2. Lost Sales
3. Promotion Sales
4. Event Sales
5. Closeout Sales

A Demand Forecasting solution must provide a forecast based on each segmented demand type listed. Lower end systems will only use three types. Higher end Demand Forecasting software use all 5 demand types, breaking out each demand type into units and also provide consolidated forecast total units.

The ‘Demand’ Forecasting Software Sales Misdirection

People are developing marketing phrases that have nothing to do with demand forecasting. The misdirection comes in different forms. One company lists their forecast algorithms with the claim they are demand forecasting because they use certain forecast algorithms. Sales Forecasting software and Demand Forecasting software can use the same algorithms. The forecast algorithms are NOT the difference between sales and demand forecasting. Some companies claim they are forecasting demand and list demand types that do not exist in universities, textbooks or reality. You can easily see how each of these is describing a market response.

These are NOT Types of Demand, they ARE Market Response

- Fast Selling
- Slow Selling
- Regular Selling
- Intermittent Selling

The Key things to Know about Demand Forecasting
The segmenting of sales into demand types is the key difference of Demand Forecasting. The separation of demand greatly improves forecast accuracy and results in lower inventory costs and in more accurate inventory replenishment. Modern systems use more than 10 algorithms and deliver higher forecast accuracy. By contrast the best and most popular replenishment systems in the market 7 or more years ago used only 4 or fewer algorithms and three demand types. Why does this matter to you – because you will get higher forecast accuracy, better replenishment, lower costs, improved promotional lift, and higher total sales.

By the way – Don’t be fooled by the ‘Dim Erotic Sin’ of Sales Forecasting, remember ‘Dim Erotic Sin’ is just an anagram for Misdirection.

Are you ready to ‘Tighten the Links in Your Supply Chain™?

Stop accepting poor forecasting, out-of-stocks and expensive inventory operations. Contact us for a free review of your current replenishment and out-of-stock issues. We have the experience and tools to help you improve your business. Also, request a demo to learn how our software can reduce out-of-stocks and increase sales, installed in 30 days at a fraction of the cost of legacy systems.

Download the Demand Forecasting Whitepaper here.