WHITE PAPER: SEASONAL FORECASTING AND PROMOTIONAL LIFT

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1. What is a Short Life Cycle Product?

A Short Life Cycle (SLC) product, or special emphasis product, is an item that is typically not intended to be a replenished item or is an item that is in a time period during which replenishment systems cannot forecast demand appropriately.

Short Life Cycle product can include special purchase buys, which may be one time purchases and are never intended to become replenishment items. It can be an item that has no history by which to establish a replenishment strategy and can include items early in their life cycle such as new products, which will eventually become replenishment items. Short season items that support weather seasons such as swimwear or outerwear are typically SLC items because they are only intended to be sold during a specific time window. Also, special seasons may include Easter for dress apparel and decorative items or Back to School for selected products. These items have a life cycle with a clear beginning and ending time frame. Specially packaged items (typically used promotionally) such as a set or grouping of items to sell as one, may also be treated as SLC products. Even if the individual items have history, their historical volume may not be predictive of the specially packaged product and may have an ending date for product availability. Items with a short life span such as specific models of electronic items or short-term promotional items in support of mainline products can also be handled as SLC.

SLC items either sell down or become replenishment items, which can be transitioned to typical replenishment forecasting methods. SLC provides an algorithm that is similar to replenishment in that **SHORT LIFE CYCLE FORECASTER™** attacks "regular demand" or base demand – but only for SLC items.

2. How do you Forecast for Short Life Cycle?

In planning any product, a forecast across time that reflects consumer demand is critical. Replenishment handles this by using historical demand to predict regular or base day in and day out demand on stable product. Short Life Cycle handles the "other" products, which we have referred to as special emphasis. (Within replenishment or SLC, management and forecasting of promotions is addressed as an override.)

Forecasting with **SHORT LIFE CYCLE FORECASTER™** manages both total quantity forecasting and demand curve predictions. Total Quantity Demand Management™ utilizes modeling techniques which factor in relative demand position within the life cycle and the acceleration or deceleration of the demand curve at any point in time. Initial forecasting is supported by product demand curve profiles, which are evaluated and managed throughout the product life cycle.

3. When does Promotional Demand Forecasting support Short Life Cycle Forecasting?

SHORT LIFE CYCLE FORECASTER™ handles day in and day out regular demand for SLC products. Promotional Event Demand is the distorted demand that results when merchandising factors are orchestrated to enhance customer response to specific product. Because this demand is greater than the day in and day out demand, it is critical to predict the lift caused by promotional events during the event time frames. **PROMOTIONAL DEMAND FORECASTER™ (PDF)** handles the "other" times, those times when a promotional event distorts demand.

The leading solution for promotional forecasting, Churchill's **PROMOTIONAL DEMAND FORECASTER™**, centers around the approach that a promotional event can be better understood by characterizing all of the "actions" in place to generate increased product demand. These event characteristics or attributes of a promotion are referred to as factors. The underlying philosophy behind promotional demand forecasting is that there is predictability in consumer reaction to these promotional factors. Churchill's greatest successes in forecasting demand for these promotional events has been through the utilization of an artificial intelligence technique called neural networks. Because the underlying neural network technology in the software is based on the understanding of the interrelationships of the numerous factors associated with any given promotional event, Churchill's Promotional Demand Forecaster™ excels at forecasting promotional demand. The factors include such "actions" as price discounting, seasonality, advertising and in-store placement.

PDF predicts a lift over regular demand to build a forecast of increased demand for specific item/time occurrences. This lift or multiplier is applied to the Short Life Cycle base demand forecast and is incorporated into the Total Quantity Demand Management™ of the SLC product.

4. How do you Evaluate Total Life Cycle, both Short Life Cycle and Promotional Demand Forecasts?

Churchill's **SHORT LIFE CYCLE FORECASTER™** incorporates management of both regular demand and promotional demand within the evaluation and reporting modules. With a graphical representation (managed by user controlled views and selections), SLC presents quantity demand volume by time for the total demand time frame, with comparisons of forecast and actual performance, with or without promotions, with or without a base forecast, etc.