Addressing the Challenges of New Product Forecasting

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Today’s Agenda

✓ Discuss the challenges of new product forecasting.

✓ Compare new product forecasting with forecasting existing products (regular sales forecasting).

✓ Offer prescriptions for managing the new product forecasting endeavor.
New Product Forecasting Issues/Realities

- Limited amount of data available for analysis
- Limited amount of time for analysis
- Inability to fully capture market complexity, cannibalization, market penetration rate, etc.
- Low credibility
- Low accuracy (high forecast error)
## New Product Forecast Accuracy

<table>
<thead>
<tr>
<th>Type of New Product</th>
<th>% Accuracy Achieved*</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cost Reduction</td>
<td>72%</td>
</tr>
<tr>
<td>Product Improvement</td>
<td>65%</td>
</tr>
<tr>
<td>Line Extension</td>
<td>63%</td>
</tr>
<tr>
<td>New Use/New Market</td>
<td>54%</td>
</tr>
<tr>
<td>New Category Entry</td>
<td>47%</td>
</tr>
<tr>
<td>New-to the-World</td>
<td>40%</td>
</tr>
</tbody>
</table>

* Self-reported accuracy one year after launch.

Solving the problems of new product forecasting

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Abstract: An important consideration in solving the problems of new product forecasting entails distinguishing new product forecasting from the process of forecasting existing products. Particular differences between the two can be identified across the dimensions of data, analytics, forecast, plan, and measurement. For example, new product forecasting features little to no data with which to begin the process, whereas data are available and accessible in forecasting existing products. The minimal data situation requires a qualitative approach that lays out assumptions to provide transparency; in contrast, quantitative techniques are predominantly used when forecasting existing products. Different assumptions help construct a range of new product forecast scenarios, each one providing a different perspective on potential market performance.
Forecasting Existing Products versus New Product Forecasting
## Distinguishing New Product Forecasting

<table>
<thead>
<tr>
<th></th>
<th>Forecasting Existing Products</th>
<th>New Product Forecasting</th>
</tr>
</thead>
<tbody>
<tr>
<td>Data</td>
<td>History</td>
<td>Assumptions</td>
</tr>
<tr>
<td>Analytics</td>
<td>Statistical</td>
<td>Judgmental</td>
</tr>
<tr>
<td>Forecast</td>
<td>Point</td>
<td>Range</td>
</tr>
<tr>
<td>Plan</td>
<td>Certainties</td>
<td>Contingencies</td>
</tr>
<tr>
<td>Measurement</td>
<td>Accuracy</td>
<td>Meaningfulness</td>
</tr>
</tbody>
</table>
Data

- Sales Data (Time Series)
- Other Quantitative Data
- Qualitative Data
- Assumptions
Types of NPF Forecasting Techniques

- Company Judgmental
  - Subjective Assessment Methods
    - Executive Opinion
    - Sales Force Composite
    - Delphi Method
    - Scenario Analysis
      - Normative
      - Exploratory
    - Assumptions-Based Modeling
    - Decision Trees
    - Markov Process Model
  - Customer/Market Research
    - Concept Testing
    - Product Use Testing
    - Market Testing
    - AC Nielsen BASES
    - Other Market Testing
  - Company Data Quantitative
    - Time Series
      - Simple TS Analyses
      - Looks-Like Analysis
      - Diffusion Modeling
      - Neural Networks
      - Other Advanced TS Analyses
    - Causal Modeling/Regression
      - Multiple Regression
      - Event Modeling
The ATAR Model

Total Units Sold

Units Sold as Trial Purchase (Initial Purchase)
- Awareness
- Trial
- Availability

Units Sold as Repeat Purchases (Subsequent Purchases)
- Awareness
- Trial
- Availability
- Repeat
- Quantity Purchased
Forecast
New Product Forecasting Uncertainty

High Range

Low Range

Point of Ideation

Launch (Introduction)

time

sales

Strategic Planning

Concept Generation

Pre-Technical Evaluation

Technical Development

Commercialization
Types of NPF Forecasts

- Market Potential
- Sales Potential
- Market Forecast
- Sales Forecast
Plan
Which Plan?

Demand Plan

Financial Plan

Production Plan
## Contingency Planning

<table>
<thead>
<tr>
<th>Potential Problem</th>
<th>Tracking</th>
<th>Contingency Plan</th>
</tr>
</thead>
<tbody>
<tr>
<td>Customers are not making trial purchases of the new product as expected.</td>
<td>Look at POS reports. Minimum, 100 purchases monthly per retail outlet are expected.</td>
<td>Install point-of-purchase displays.</td>
</tr>
<tr>
<td>Competitor may have similar new product.</td>
<td>Difficult to track, but conduct surveys with retailers and final consumers.</td>
<td>Offer 2 for 1 program. Consider bundling new product with other products.</td>
</tr>
</tbody>
</table>
Measurement
Managing the New Product Forecasting Endeavor
New Product Forecasting and the S&OP Process

**New Product Forecasting Process**

- Method 1
- Method 2
- Method 3

  **Reconcile and Combine**

**Load in New Product Information**

**Update Data History**

**Sales & Operations Planning (S&OP) Process**

1. Generate Statistical Baseline Forecast
2. Adjust Using Market/Field Information
3. Get Consensus on Final Forecast (S&OP)
4. Input into Operations Planning Process
5. Measure Forecasting Performance
New product forecasting differs from forecasting existing products.

New product forecasting is not about data, techniques, and systems, but rather quality assumptions, judgment, and process.

New product forecasting is less about data crunching and more about providing insights that enable senior management to better evaluate risk and decide how to act.

New product forecasting is not so much about accuracy, but about increasing the propensity for new product success.