Addressing the Challenges of New Product Forecasting

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Has consulted for numerous companies including Accenture, Acco Brands, Capital One, Coca-Cola, ConAgra, Havi Global Solutions, Health Diagnostic Laboratory and the SAS Institute.

In 2012, was recognized as one of the top ten innovation management scholars by the *Journal of Product Innovation Management*. 
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.
Solving the problems of new product forecasting

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KEYWORDS
Business analytics;
Forecasting;
New product forecasting;
New product launch

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 outcomes, each of which represents another point on the decision-making process.
Definitions

- Actuals

- Forecast
  - Volume Forecast
  - Mix Forecast

- Plan
  - Demand Plan
  - Financial Plan
  - Production Plan
More Definitions

- Market Potential
- Sales Potential
- Market Forecast
- Sales Forecast
New Product Forecasting Challenges
Select New Product Forecasting Challenges

- Time
- Data
- Complexity
- Credibility
- Accuracy
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.

Forecasting Existing Products vs 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><strong>Data</strong></td>
<td>History</td>
<td>Assumptions</td>
</tr>
<tr>
<td><strong>Analytics</strong></td>
<td>Statistical</td>
<td>Judgmental</td>
</tr>
<tr>
<td><strong>Forecast</strong></td>
<td>Point</td>
<td>Range</td>
</tr>
<tr>
<td><strong>Plan</strong></td>
<td>Certainties</td>
<td>Contingencies</td>
</tr>
<tr>
<td><strong>Measurement</strong></td>
<td>Accuracy</td>
<td>Meaningfulness</td>
</tr>
</tbody>
</table>
DATA

For Less Complex and Smaller Development Projects, Use an Abbreviated Version: 2-3 Gates

Product Technology

<table>
<thead>
<tr>
<th>Market Penetration</th>
<th>Product Development</th>
</tr>
</thead>
<tbody>
<tr>
<td>Current</td>
<td>New</td>
</tr>
<tr>
<td>(Product Improvement, Cost/Price Change)</td>
<td>(Line Extension)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Market Development</th>
<th>Diversification</th>
</tr>
</thead>
<tbody>
<tr>
<td>New</td>
<td>New-to-the-World</td>
</tr>
<tr>
<td>(New Use, New Market)</td>
<td>(New-to-the-Company, New-to-the-World)</td>
</tr>
</tbody>
</table>
### New Product Forecasting Strategy

#### Product Technology

<table>
<thead>
<tr>
<th>Market</th>
<th>Current</th>
<th>New</th>
</tr>
</thead>
<tbody>
<tr>
<td>Current</td>
<td><strong>Sales Analysis</strong></td>
<td><strong>Product Line/Life Cycle Analysis</strong></td>
</tr>
<tr>
<td></td>
<td>Cost/Price Change, Product Improvement</td>
<td>Line Extension</td>
</tr>
<tr>
<td>New</td>
<td><strong>Customer and Market Analysis</strong></td>
<td><strong>Scenario Analysis (What-If)</strong></td>
</tr>
<tr>
<td></td>
<td>New Market, New Use</td>
<td>New-to-the-Company, New-to-the-World</td>
</tr>
</tbody>
</table>
Potential Market

Available Market

Qualified Available Market

Target Market

Penetrated Target Market
Population with Medical Condition: 10,000,000

% Diagnosed: 25%

% Receiving Prescription for Brand: 10%

% Fulfilling Prescription: 50%

% Channel Availability: 90%

Penetrated Target Market = 112,500 patients
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
Launch (Introduction)

High Range

Base Business

Low Range

Point of Ideation

sales

time

Strategic Planning

Concept Generation

Pre-technical Evaluation

Technical Development

Commercialization
<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

Product XXX  New Product Tracker

**R CONSUMPTION**

- Actual
- Target (BPO0)

**DISTRIBUTION (Avg Weekly TPd s)**

- Actual
- Target
- ACV

**VELOCITY (Base Vol/Avg Plt. of Dist)**

- Actual
- Target

**TOTAL SHIPMENTS**

- Actual
- BPOS

**WAL*MART CONSUMPTION**

- Actual
- Target (BPO0)

**NOTES**

Fiscal August MTD
- Distribution, velocity trends still driving increased consumption
- Wal-Mart lagging, traits not being rolled out as fast as plan

Fiscal July
- Avg weekly total points for July is above target at 137
- Base volume/avg pt for the month is at 177, double target
- Consumption is showing faster than anticipated at 33k cs.
- Shipments for fiscal July are also above target at 99k cs.
- Product has been on shelf at Wal-Mart for 2 weeks now, expect consumption to pick up in fiscal August

Currently have 7,781 points vs. 9,429 planned points
Full mod reset will not occur until Wal-Mart week 33-35 (Sept 13-26)
Managing the New Product Forecasting Endeavor
New Product Forecasting Mantra

AstraZeneca Forecasting Mantra

From forecasts to informed decisions

Most Likely Forecast
Assumptions

Quality
Uncertainty

Monitor
Assess Risk

Plan & Accept Risk

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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**

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

New product forecasting is not 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.
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Our Next Webinar

**Understanding Your Data: The Key to Better Forecasting**

January 15, 2015 @ 1:30 p.m. EST

- Presented by Eric Stellwagen, Vice President, Business Forecast Systems, Inc.
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