Like Modeling and Life Cycle Planning – A Case Study

Applies to:
APO Demand Planning. For more information, visit the Product Lifecycle Management homepage

Summary
This article is intended for all the Planners involved in the SAP APO Demand Planning module. The article essentially describes the Like Modeling and Life Cycle Planning concepts and configuration with the help of a self created Case Study.

Author: Debarshi Sarkar
Company: Infosys Technologies Ltd., India
Created on: 2 August 2010

Author Bio
Debarshi Sarkar works for Infosys Technologies Ltd., for the past 4 years. He is working in the Demand Planning, Supply Network Planning and GATP modules.
Table of Contents

Case Study ......................................................................................................................... 3
Business Solution .................................................................................................................. 3
Configuration ....................................................................................................................... 4
  Step 1: Manually Create CVCs ....................................................................................... 4
  Step 2: Like Modeling ..................................................................................................... 8
  Step 3: Phase – IN profile .............................................................................................. 11
  Step 4: Phase – OUT profile .......................................................................................... 12
  Step 5: Now we go and check in the Planning Book ...................................................... 14
Related Content .................................................................................................................. 17
Disclaimer and Liability Notice ........................................................................................... 18
Case Study

The Client wants to introduce a new type of television “TV_52” in their APAC region for Indian customers for a time period of 1 year starting from August 2010 only in RETAIL outlets KMART and WMART. They already have an existing product “TV_29” in the same market.

Business Solution

TV_52 is a NEW product, and hence it has no Historical Data. So, ideally we cannot generate Forecast for any product without History.

In such cases, we copy the History of a similar kind of product/products to the new one.

Here we’ll copy the History of TV_29 (existing product), and then we’ll generate the forecast for TV_52. We can also have the history copied from more than one product, as per the business requirement. This functionality of APO DP is known as LIKE MODELING.

But, TV_52, being a new product can’t have the exact demand pattern as TV_29. As TV_29 is an established brand, it'll have much more demand than TV_52. In every product’s life there are 4 phases – launch, growth, maturity, and discontinuity. So, as soon as TV_52 is launched its demand will grow only gradually, and will then hit the maturity phase.

After certain time period, this product needs to be discontinued from the market (owing to various factors), this is the time it'll hit the discontinuation stage.

This behavior can be mapped to APO DP functionality. The Forecasting Model (Univariate for e.g.) will generate the forecast as usual based on the copied history data. But we limit this forecast figure using certain factors, and increase it gradually, till the product reaches Maturity Phase. This functionality is called PHASE IN. In the maturity phase the usual Univariate Forecast figures are taken. As we reach the Discontinuation phase, we again apply certain factor to the Univariate forecast figure and reduce it gradually. This functionality is called PHASE OUT.

So, basically to achieve the client’s requirement, we need to do the following things –

1) Manually create Characteristic Value Combinations for TV_52
2) Like Modeling with TV_29
3) Assign Phase-IN profile
4) Assign Phase-OUT profile
5) Check the data in the Planning Book
Configuration

Step 1: Manually Create CVCs

Characteristics to be considered here are –

a) Country – INDIA
b) Customer – KMART, WMART
c) Customer Group – RETAIL
d) Product Group – TELEVISION
e) Product – TV_52
f) Region - APAC
Choose – “Create Manually” and then Execute (F8)

**Create Characteristic Combinations**

- **Execute (F8)**
- **Target Planning Object Structure:** DS75028P

- **Create Characteristic Combinations**
  - Create Manually
  - Load to Worklist
  - Generate Immediately
  - Generate in Background

We get the below screen, where we have to “Append Row”
We type in the required CVCs and then click on "Generate Combinations".

System will ask for the below screen, we click on "Yes".

We have added a new Product in INDIA – TV_52.

We can view that product in the Planning Book. We can see TV_52 in the list of Products.
If in the Header – we select just TV_52, we see no data; this is because TV_52 is a new product being introduced, and hence it has no History data and hence no Forecast figure.

We have to do a Like Modeling of TV_52 based on the existing product (TV_29), and then we’ll adjust the Phase in/Phase out profiles of this new TV_52 product.
Step 2: Like Modeling

We have to go to the Life Cycle Planning screen

First we have to do the Basic Settings. In the Basic setting we define the Level at which we want to do the Life Cycle Planning. We want to do the Planning in the SKU and Country level.

We choose “Basic Settings”, the Planning Area (DS_PA1) and hit the ‘Execute’ button
We go to the below screen –

We want to do the Planning in the SKU and Country level. We put the relevant Key Figures and “Adopt” them.

**Define Basic Settings for Life Cycle**

- **Planning Area**: DS_PA1
- **Status**: Basic settings have already been saved
- **Characteristics**:
  - Product SKU (ZPRODSKU1)
  - Country (ZCOUNTRY1)

Click on ‘Like Profiles’

**Lifecycle Planning**

- **Like Profiles**: DS_PA1

Here we have to select the relevant ‘Characteristics’ i.e., Product SKU (ZPRODSKU1)

Give a Like Profile name (DS_LP1) and give its Description

Then we have to select the Model whose history we need to copy and in what percentage.

Here, we are selecting TV_29, and copying 100% of its history. We select the Action ‘S’ (A and S available, read more in help.sap.com on this).
We have to "SAVE this"
Step 3: Phase – IN profile
Click on “Phase In/Out”

Lifecycle Planning

Phase -- IN
Product is Planned to be launched by Aug 2010.
We have to create a Phase In Profile name – “Time Series”
“Start date” will be from the Month business wants to launch the Product. Here it’s Aug 2010.
“End Date” will be the Period till which Business wants the Product to be in the GROWTH phase. Here it’s till 5 months including the launch month. So the end date for the growth phase is Dec 2010.
We have selected the Period as M – monthly.
We have to check the “Before start date, apply constant factor”.
We have to assign the percentage values for each period of growth in “Maintain Values”.
After these settings we have to “Adopt” them.

Time Series Maintenance

Maintain Values

Data saved successfully
**Step 4: Phase – OUT profile**

We have to click on “Phase In/Out” button, and we go to the below screen.

Phase – OUT

The Product is planned to be phased out by the end of 2011.

We have to create a Phase OUT Profile name – “Time Series”

“Start date” will be from the Month Business wants the Maturity phase of the Product to end. Here it’s Aug 2011.

“End Date” will be the Period by which Business wants the Product to be in the out of the market. So the end date for the growth phase is Dec 2011.

We have selected the Period as M – monthly.

We have to check the “After end date, apply constant factor”.

We have to assign the percentage values for each period of DISCONTINUITY in “Maintain Values”. After these settings we have to “Adopt” them.
Now we have to assign the respective Phase-In/Phase-Out Profile to the newly introduced SKU (TV_52)

Select “Assignments” and click on “Execute”

We go to the below screen –

Here we do the assignments of Like Profile, Phase IN profile and Phase OUT profile

Assign Life Cycle

Assign Life Cycle
We adopt this

**Assign Life Cycle**

<table>
<thead>
<tr>
<th>Product</th>
<th>Country</th>
<th>Like Profile</th>
<th>Phase in Profile</th>
<th>Frm Date</th>
<th>To Date</th>
<th>Phase</th>
</tr>
</thead>
<tbody>
<tr>
<td>TV_52</td>
<td>INDIA</td>
<td>DS_LP1</td>
<td>DS_Ph11</td>
<td>01.08.2010</td>
<td>31.12.2010</td>
<td>P</td>
</tr>
</tbody>
</table>

**Step 5: Now we go and check in the Planning Book**

We use the Shuffler to select the desired output -
We select the “Univariate Forecast” button and load data and forecast into the Planning Book.

In interactive planning book values for history KF can be seen. These numbers are the borrowed history numbers from TV29.
Click on messages and we can see which like profile, phase-in and phase-out profile is used.

Output in the Planning Book (Initial phase, Maturity Phase and Decline Phase) – check the values.

The values in the Planning Book for the Product SKU TV_52 is increasing gradually at first, then attaining a constant maximum value, and after a certain period decreasing gradually.
Related Content

http://help.sap.com/saphelp_apo/helpdata/en/02/7650fd353611d398290000e8a49608/content.htm
www.sap.sdn.com

For more information, visit the Product Lifecycle Management homepage
Disclaimer and Liability Notice

This document may discuss sample coding or other information that does not include SAP official interfaces and therefore is not supported by SAP. Changes made based on this information are not supported and can be overwritten during an upgrade.

SAP will not be held liable for any damages caused by using or misusing the information, code or methods suggested in this document, and anyone using these methods does so at his/her own risk.

SAP offers no guarantees and assumes no responsibility or liability of any type with respect to the content of this technical article or code sample, including any liability resulting from incompatibility between the content within this document and the materials and services offered by SAP. You agree that you will not hold, or seek to hold, SAP responsible or liable with respect to the content of this document.