ERPSIM Activity Four—Changing BOMs, Reducing Production Setup Time, Paying Loan Principal

You produce 6 products

- Wheat
- Nuts
- Blueberries
- Oats
- Dried raisins
- Strawberries

MUESLI + Plastic bag + Cardboard box
Changing BOM

Your factory has the ability to handle 6 different products.

Product formulations may be adjusted. Product package size may be adjusted.

Example: You can produce 1 kg blueberry, .5 kg blueberry, 1 kg strawberry, .5 kg strawberry, 1 kg original, .5 kg original.

Product recipes must conform to Muesli Industry Standards.

Product Size

0.5 KG

1.0 KG
Muesli label regulations

Table 1.3: Muesli Manufacturing Association Label Regulation

<table>
<thead>
<tr>
<th>Ingredients</th>
<th>Original</th>
<th>Blueberries</th>
<th>Strawberries</th>
<th>Raisins</th>
<th>Nuts</th>
</tr>
</thead>
<tbody>
<tr>
<td>Wheat</td>
<td>Min 20%</td>
<td>Min 30%</td>
<td>Min 50%</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td>Oats</td>
<td>Max 70%</td>
<td>Max 60%</td>
<td>Min 60%</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td>Blueberries</td>
<td>Min 20%</td>
<td>Min 30%</td>
<td>Min 40%</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td>Strawberries</td>
<td>Min 20%</td>
<td>Min 20%</td>
<td>Min 20%</td>
<td>Min 20%</td>
<td>No</td>
</tr>
<tr>
<td>Raisins</td>
<td>Min 20%</td>
<td>Min 20%</td>
<td>Min 20%</td>
<td>Min 20%</td>
<td>No</td>
</tr>
<tr>
<td>Nuts</td>
<td>Min 20%</td>
<td>Min 20%</td>
<td>Min 20%</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td>Mixed Fruits</td>
<td>Min 20%</td>
<td>Min 20%</td>
<td>Min 20%</td>
<td>No</td>
<td>No</td>
</tr>
</tbody>
</table>

ERP Simulation Game, Participant’s Guide, Page 1-8

Viewing Bill of Materials

CS03
Changing Bill of Materials  ZCS02

Here are the steps to create a bill-of-material in SAP®. On "Change Material BOM initial screen", enter the following information. Remember that $ is the letter of your plant.

<table>
<thead>
<tr>
<th>Fields</th>
<th>Date to update</th>
</tr>
</thead>
<tbody>
<tr>
<td>Product</td>
<td>2013-01</td>
</tr>
<tr>
<td></td>
<td>2013-02</td>
</tr>
<tr>
<td></td>
<td>2013-03</td>
</tr>
<tr>
<td></td>
<td>2013-04</td>
</tr>
<tr>
<td></td>
<td>2013-05</td>
</tr>
<tr>
<td></td>
<td>2013-06</td>
</tr>
<tr>
<td>Plant</td>
<td>2015</td>
</tr>
</tbody>
</table>

Local market retailing sector

192 retailers
3 categories of retailers

Independent grocers  Grocery chains  Hypermakets

123  59  12

Each retailer is represented by a different distribution channel number.
Each retailer has a different box size preference.
The demand from Customers

Retailers order according to the needs of their customers.

Customers have different preferences, each having a “preferred” recipes.

Products closer to one’s preferred recipe have an edge.

Advertising is persuasive, it can turn your recipe into the “preferred product.”

Price matters, remember that there are other things to eat than muesli.

There is fluctuation in demand.


ERPsim Logistics

Transaction ZCS02 for changing BOMs—same as standard SAP transaction except validity checks recipe before accepting.

Transaction will automatically rename the text name of your product based on formulation.

You cannot change BOM for a product while existing products in that 'slot' are in stock.

Sell out, adjust BOM, reforecast etc.
Setup time reduction

Between production runs, plant shuts down for 12 hours for cleaning. Setup time reduction allows you to lower that time.

Table p. 1-19.
Job Aid

Payment on Loan Principal

May pay on bank loan.

12,000,000€.
Prime rate ~ 6%, with an 'A' credit rating ~7.25%
General Comment

We have now covered all the core ERPsim functionality. Would be helpful to reread the *Participant's Guide* (except chapters 2 and 3) in order to look for strategic concepts (and transactions) you may previously have overlooked.

Note the following: Page 4-9 – 4-11; 4-16; 4-19 – 4-22 handled by simulation engine.