

15. TUTORIAL FOR THE ASSESSOR PRETEST MARKET TOOL (assessor.xls)

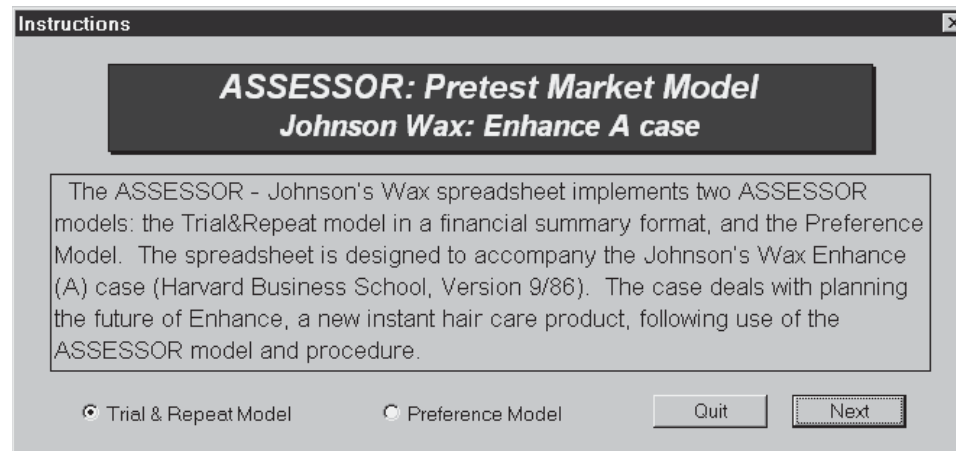
CASE: JOHNSON'S WAX ENHANCE (A), P. 283

The ASSESSOR system is a set of measurement procedures and models designed to help managers forecast the market share of new packaged goods before test marketing.

Our ASSESSOR Excel spreadsheet incorporates both the Trial and Repeat Model and the Preference Model. Both models are essentially self-contained, and they complement each other. The ASSESSOR Excel spreadsheet is designed to accompany the Johnson Wax: Enhance (A).

PART 1— TRIAL AND REPEAT MODEL

On the **Model** menu, select **Pretest Market Model** (assessor.xls) to get to the introductory screen. Select the **Trial & Repeat Model** and click on the **Next** button.



You should run the Trial & Repeat Model before running the Preference Model. In this implementation, the Trial & Repeat Model generates one of the inputs to the Preference Model (Net Cumulative Trial from Ad).

You will see the input box for the Trial & Repeat Model. Click **Response Mode** to assign parameter values indirectly or click **Manual Mode** to do it directly.

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Model: sample Response Mode Complete data input ...
 Manual Mode then select functions

Target market size (MM) 60.00	Cost per sample (\$) 0.10
Switchback (0 - 1) 0.16	Exp. retail price - 8oz (\$) 1.31
Distribution (0 - 1) 0.85	Factory price - 8oz (\$) 1.00
Awareness (0 - 1) Set Up >> 0.70	Cost of goods - 8oz (\$) 0.46
Trial (0 - 1) 0.23	Exp. retail price - 16oz (\$) 1.94
Repeat rate (0 - 1) 0.60	Factory price - 16oz (\$) 1.31
Number of samples (MM) 35.00	Cost of goods - 16oz (\$) 0.60
Samples delivered (0 - 1) 0.90	Advertising expense (\$MM) 4.50
Samples hitting target (0 - 1) 0.80	
Samples used (0 - 1) 0.60	
Sample repeat rate (0 - 1) 0.43	
Mfr.s' sales per person (\$) 4.16	
Unit-dollar adjustment (0 - 1) 0.94	
8 oz. sales share (0 - 1) 0.40	

Data Maintenance Area

Enhance Base Data User Defined

 sample ▼

Note that no **Set Up** button is available in the **Manual Mode**.

The response mode allows you to define functional relationships between advertising expenditures and awareness and also between advertising expenditures and the trial rate. Variations in the advertising level are reflected in costs and in revenues. In contrast, the manual mode represents the simple “dumb spreadsheet” approach where sales are independent of advertising.

Clicking the **Set Up** button while in the **Response Mode** brings you to the following box:

Marketing Engineering - Assessor

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Response Model

Awareness:

Max. Awareness (Unlimited Ad.) (0-1) 0.82

Ad. \$ to obtain 50% of Max. Awareness (\$MM) 1.6

Trial (for Advertising):

Max Trial (Unlimited Ad.) 0.37

(0-1; less than Max Awareness)

Ad. \$ to obtain 50% of Max. Trial (\$MM) 3.1

Current Level of Advertising (\$MM) 4.5

Awareness: (0-1) 0.70

Trial (for Advertising): (0-1) 0.23

Ready Sum=0 NUM

You must provide parameter values to calibrate two simple response curves that represent the effect of advertising expenditure on awareness and trial. The modified exponential function underlies these two response curves. When you are finished, click **Run** to get back to the model input screen.

Once you have provided the necessary inputs for the Trial & Repeat model, save the work. Click **Save As** to save your input data and to assign a name to the data set. Any saved data set can be accessed later by selecting **User Defined** and then selecting the data set from the pull-down menu directly underneath. Click **Delete** to remove data cases.

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Model: sample

Response Mode
 Manual Mode

Complete data input ...
then select functions

<table style="width: 100%; border-collapse: collapse;"> <tr><td>Target market size (MM)</td><td style="text-align: right;">60.00</td></tr> <tr><td>Switchback (0 - 1)</td><td style="text-align: right;">0.16</td></tr> <tr><td>Distribution (0 - 1)</td><td style="text-align: right;">0.85</td></tr> <tr><td>Awareness (0 - 1)</td><td style="text-align: right;">0.70</td></tr> <tr><td>Trial (0 - 1)</td><td style="text-align: right;">0.23</td></tr> <tr><td>Repeat rate (0 - 1)</td><td style="text-align: right;">0.60</td></tr> <tr><td>Number of samples (MM)</td><td style="text-align: right;">35.00</td></tr> <tr><td>Samples delivered (0 - 1)</td><td style="text-align: right;">0.90</td></tr> <tr><td>Samples hitting target (0 - 1)</td><td style="text-align: right;">0.80</td></tr> <tr><td>Samples used (0 - 1)</td><td style="text-align: right;">0.60</td></tr> <tr><td>Sample repeat rate (0 - 1)</td><td style="text-align: right;">0.43</td></tr> <tr><td>Mfr.s' sales per person (\$)</td><td style="text-align: right;">4.16</td></tr> <tr><td>Unit-dollar adjustment (0 - 1)</td><td style="text-align: right;">0.94</td></tr> <tr><td>8 oz. sales share (0 - 1)</td><td style="text-align: right;">0.40</td></tr> </table>	Target market size (MM)	60.00	Switchback (0 - 1)	0.16	Distribution (0 - 1)	0.85	Awareness (0 - 1)	0.70	Trial (0 - 1)	0.23	Repeat rate (0 - 1)	0.60	Number of samples (MM)	35.00	Samples delivered (0 - 1)	0.90	Samples hitting target (0 - 1)	0.80	Samples used (0 - 1)	0.60	Sample repeat rate (0 - 1)	0.43	Mfr.s' sales per person (\$)	4.16	Unit-dollar adjustment (0 - 1)	0.94	8 oz. sales share (0 - 1)	0.40	<table style="width: 100%; border-collapse: collapse;"> <tr><td>Cost per sample (\$)</td><td style="text-align: right;">0.10</td></tr> <tr><td>Exp. retail price - 8oz (\$)</td><td style="text-align: right;">1.31</td></tr> <tr><td>Factory price - 8oz (\$)</td><td style="text-align: right;">1.00</td></tr> <tr><td>Cost of goods - 8oz (\$)</td><td style="text-align: right;">0.46</td></tr> <tr><td>Exp. retail price - 16oz (\$)</td><td style="text-align: right;">1.94</td></tr> <tr><td>Factory price - 16oz (\$)</td><td style="text-align: right;">1.31</td></tr> <tr><td>Cost of goods - 16oz (\$)</td><td style="text-align: right;">0.60</td></tr> <tr><td>Advertising expense (\$MM)</td><td style="text-align: right;">4.50</td></tr> </table>	Cost per sample (\$)	0.10	Exp. retail price - 8oz (\$)	1.31	Factory price - 8oz (\$)	1.00	Cost of goods - 8oz (\$)	0.46	Exp. retail price - 16oz (\$)	1.94	Factory price - 16oz (\$)	1.31	Cost of goods - 16oz (\$)	0.60	Advertising expense (\$MM)	4.50
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 User Defined

sample ▼

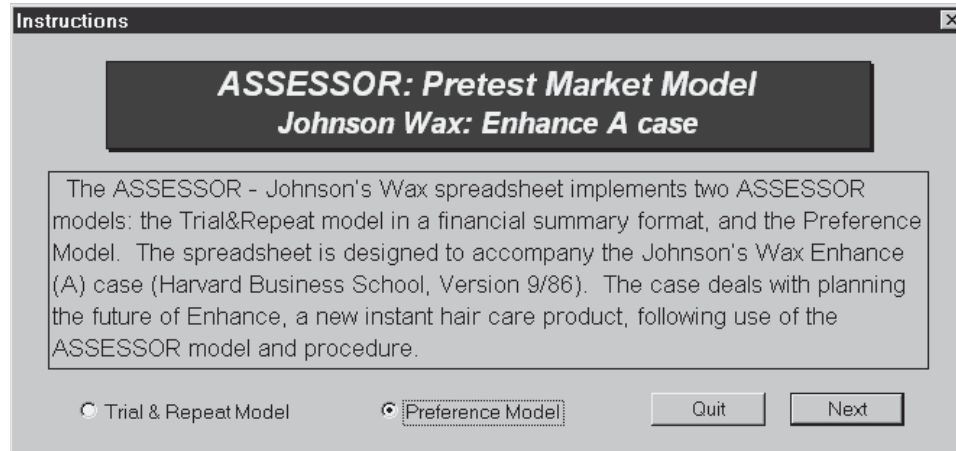
There are two ways to view the results of the Trial & Repeat model: **Sensitivity** and **Report**.

Sensitivity analysis: Selecting **Sensitivity** opens a new dialog sheet that lets you see the effects of changing one of the input parameters on Market Share and Return on Sales. In this box, we have opted to investigate the impact of advertising expense:

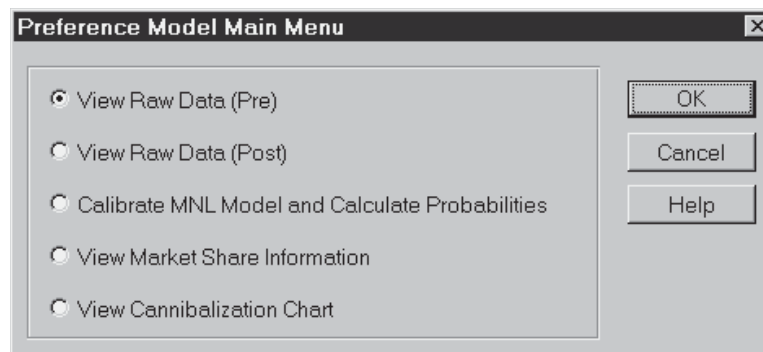
PART 2 — PREFERENCE MODEL

To switch to the Preference Model, you must go back to the introductory dialog box from the **Model** menu and choose **Introduction**.

Click **Preference Model** and **Next**.



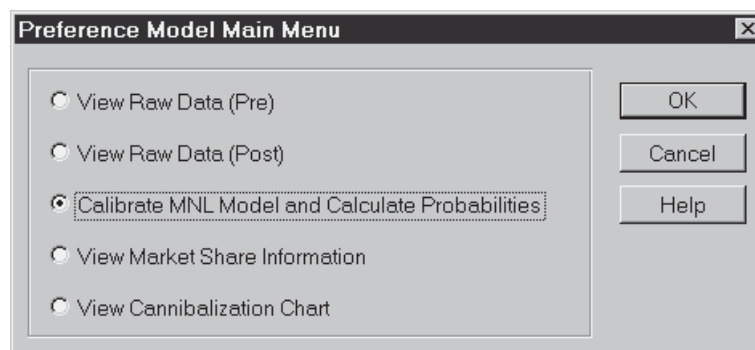
The Preference Model **Main Menu** lists the functions of the model.



*Note: You can access the Preference Model **Main Menu** under the **Model** menu in the menu bar (you cannot access it while working in the Trial & Repeat Model).*

Step 1

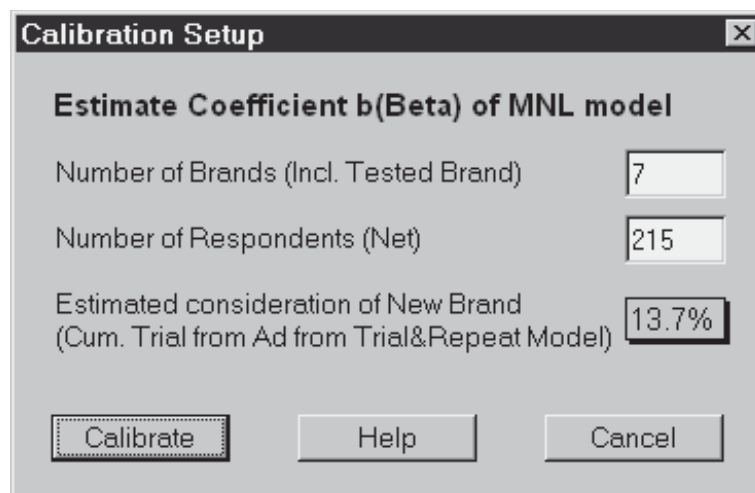
First you can view the input data for the respondents prior to their exposure to advertising and to simulated shopping (pre-usage) as well as after exposure (post-usage). The pre-usage data sheet shows first, the scaled preference ratings from each respondent for each brand in the test and second, the brand last purchased prior to advertising exposure and the simulated shopping experience. On the **Model** menu, choose **Main Menu**, and click **View Raw Data (Post)** to see the post-usage data sheet. It contains scaled preference ratings from the survey conducted after the respondents have had an opportunity to use the product. The pre-data and post-data sets include information only from respondents who responded to both surveys.



Step 2

Central to the Preference Model is the third option, **Calibrate MNL (Multinomial Logit) Model and Calculate Probabilities**. Click this option to start the estimation of the MNL coefficient (b) and the calculation of the market share estimates based on this estimated coefficient.

First you need to enter the number of brands and the number of respondents. These parameters are dependent on the ASSESSOR test data. For the Johnson Wax: Enhance case, we have already entered this information.



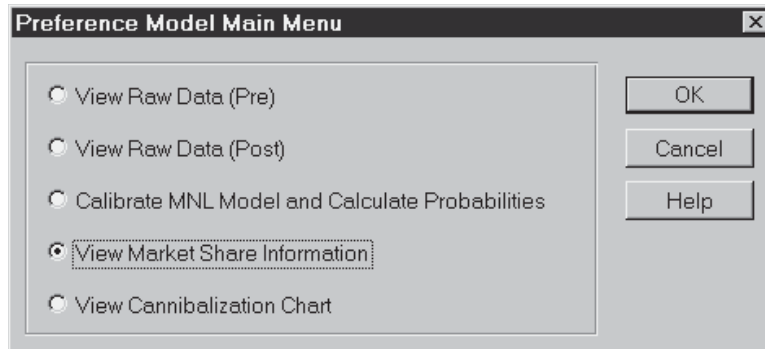
The Trial & Repeat model calculates a value for “cumulative trial from advertising,” which serves as a proxy for the likely purchase of Enhance by respondents who are not subjected to the simulated shopping experience. Click **Calibrate** to start the estimation procedure and then **OK**. The program will then display the computed b coefficient. Click **OK** to continue.

The program computes the b coefficient of the MNL model using the Solver tool. It will also compute the choice probabilities of each brand for each respondent, and it will convert these probabilities into market shares using the estimated (b) coefficient. While the macro is running, the status bar will inform you about its progress.

*Note: By choosing **View Raw Data (Pre)** and **View Raw Data (Post)** you can access the probability estimates (see also Step 4).*

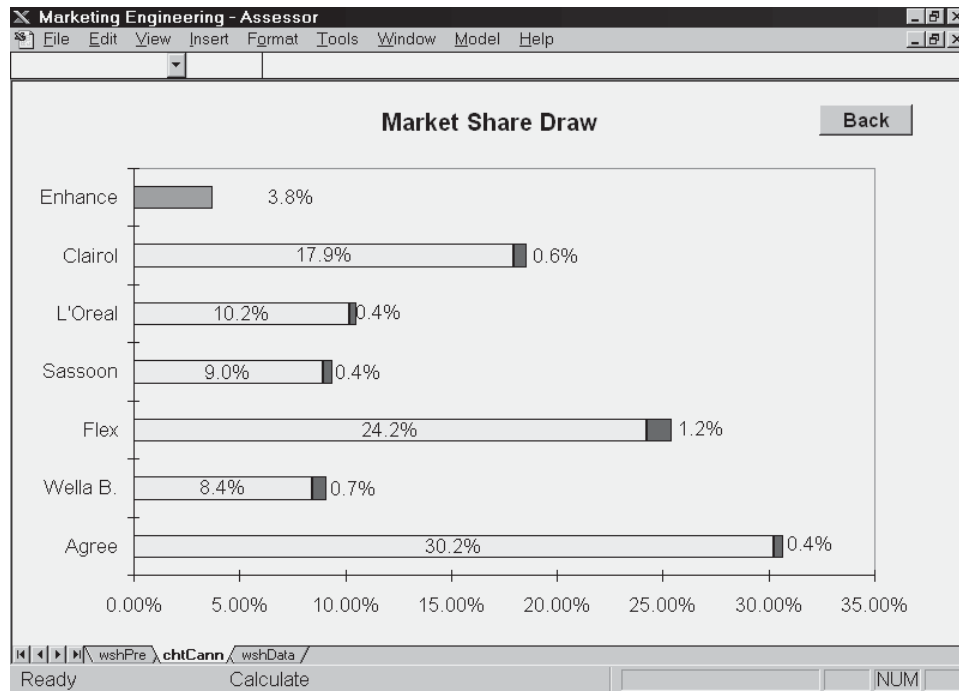
Step 3

After the program calibrates the MNL model and estimates the probabilities, select **View Market Share Information** to see information on market shares and draw estimates, as shown below:



	A	B	C	D	E	F	G	H	I
1	Summary Market Share Information								
2									
3	Brand	Agree	Vella B.	Flex	Sassoon	L'Oreal	Clairol	Enhance	
4									
5	Pre Market Share	0.302	0.084	0.242	0.090	0.102	0.179	0.000	
6	Post Market Share	0.271	0.033	0.156	0.058	0.074	0.134	0.274	
7	Weighted Post	0.298	0.077	0.231	0.085	0.098	0.173	0.038	
8	Draw	0.004	0.007	0.012	0.004	0.004	0.006	0.038	
9									
10									
11	Weight (Trial from Advertising and Sampling *)=		0.137						
12	Based on MLE (beta):		1.680						
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14	* Deflated to approximate historic market results								
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You can also select **View Cannibalization Chart** to see the chart titled **Market Share Draw**, which shows the estimated impact of cannibalization.



Step 4

If you want to investigate the output of the Preference Model in more detail, you can look at the estimated probabilities (which are based on the b coefficient) for the pre-usage and post-usage data by going to the **Main Menu** and selecting **View Raw Data (Pre)** (below) or **View Raw Data (Post)**.

Row	Resp. ID	Brand Bought	Agree	Wella B.	Flex	Sassoon	L'Oreal	Clairol	Enhance
6	1	5	1.835	1.416	0.709	1.056	1.916	2.538	0
7	2	6	0.769	0	0	0	0	1.354	0
8	3	6	1.236	0	1.825	0	0	3.338	0
9	4	1	4.67	0	1.774	0	0	0	0
10	5	2	1.94	4.158	1.152	1.955	4.12	4.961	0
11	6	1	4.432	3.568	2.757	3.134	0.458	2.314	0
12	7	4	2.258	3.017	3.509	4.705	0	1.232	0
13	8	5	1.868	1.636	0.974	0	2.231	0	0
14	9	4	0	4.472	3.339	1.863	4.605	1.432	0
15	10	1	3.724	0	0.704	0	0	0	0
16	11	5	0.99	4.646	0.355	0.166	4.826	3.16	0
17	12	6	1.355	0	0.65	0	0	3.171	0
18	13	1	3.784	0.87	2.475	1.445	1.866	2.507	0
19	14	4	2.347	0	0.252	4.804	0	0	0
20	15	1	3.411	0	1.316	0.487	3.008	2.074	0
21	16	2	4.768	4.784	4.71	1.389	1.109	0.418	0