

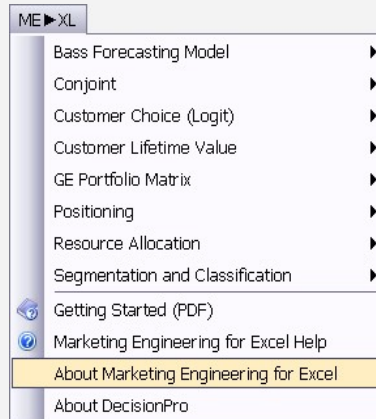
Tutorial

Conjoint



Marketing Engineering for Excel is a *Microsoft Excel* add-in. The software runs from within *Microsoft Excel* and only with data contained in an Excel spreadsheet.

After installing the software, simply open *Microsoft Excel*. A new menu appears, called "ME ▶XL." This tutorial refers to the "ME ▶XL/*Conjoint*" submenu.



Overview

Conjoint analysis measures customers' preferences; it also analyzes and predicts customers' responses to new products and new features of existing products. With conjoint analysis, companies can decompose customers' preferences for products and services (provided as descriptions, visual images, or product samples) into the "partworth" utilities associated with each option of each attribute or feature of the product category. By recombining these partworths, companies can predict customers' preferences for any combination of attribute options, determine the optimal product concept, and identify market segments that value a particular product concept highly.

Conjoint analysis also helps firms answer such questions as:

- ✓ How much are our customers willing to pay for an extended warranty?
- ✓ What drives purchase choices?
- ✓ If we must choose between two different features to introduce in the next generation of products, which one would have the most impact on customers' satisfaction?
- ✓ In our market, how many customers are overly price sensitive? How many are mostly quality driven in their purchase decisions?

Getting Started

Many *Marketing Engineering for Excel* models allow you to use the interactive assistant, which prompts you for the parameters required by the model and builds a template spreadsheet into which you can enter the required data. This generated template includes pre-selected cell ranges that correspond to the parameters you enter. These recommended *Marketing Engineering for Excel* templates facilitate subsequent analyses.

Expert users who are familiar with *Marketing Engineering for Excel* models and data requirements may prefer to input data directly in an unformatted spreadsheet. Such users should begin with the interactive assistant to become familiar with the data format that *Marketing Engineering for Excel* expects.



The next section explains how to create an easy-to-use template to collect and enter your own data.

If you want to run a conjoint analysis immediately, open the example file "OfficeStar Data (Conjoint, Part 1).xls" and jump to "Step 4: Estimating Preference Part Worths" (p.8). By default, the example files install in "My Documents/My Marketing Engineering/."

If you want to see conjoint analysis in action, open the example file "OfficeStar Data (Conjoint, Part 2)" and jump to "Step 7: Running analyses" (p. 14). You should not change the analysis parameters manually (they were established in Step 5) but you will see how a conjoint process works.

Step 1 Creating a study design template

A conjoint study involves a complex, multi-step analysis. The first step requires designing the study itself: By which features and characteristics are the products under study described?

In Excel, if you click on ME ▶ XL → CONJOINT → CREATE STUDY DESIGN TEMPLATE, a dialog box appears. The first dialog box prompts you to use an interactive assistant.

Unless you are already familiar with the methodology, you should select "yes."



Using the interactive assistant

The first step of the study design template generation process requires you to label and list the attributes you want to use.

An **attribute** is a general category that you can use to build and describe alternative products or services, such as "color," "price," or "quality." The attributes listed in the dialog box below come from the *OfficeStar* example.



The screenshot shows a dialog box titled "Create Study Design" with a subtitle "Enter the attributes of your Conjoint study". The "Attributes" section contains a "New Attribute:" text input field, an "Add to list" button, and a "List of Attributes:" list box containing "Location", "Office supplies", "Furniture", and "Computers". Below the list box are "Up", "Down", and "Delete" buttons. At the bottom of the dialog are "Cancel", "< Previous", and "Next >" buttons.

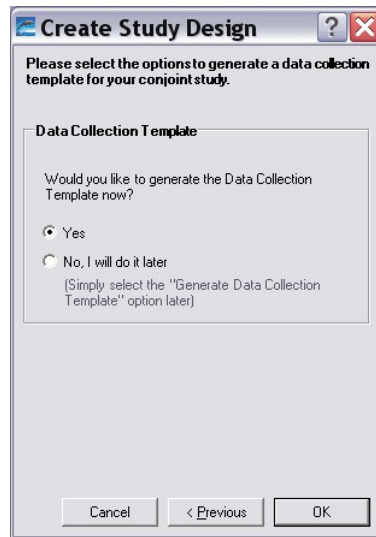
After you have described the attributes, you must enter levels for each in the next step. An attribute is a general category description, such as color, price, or warranty, whereas the **levels** are the particular values that an attribute can take, such as red, \$20, or 1-year warranty.

Each attribute requires at least two levels.



The screenshot shows a dialog box titled "Create Study Design" with a subtitle "Enter the levels for the 'Location' attribute". The "Levels for 'Location'" section contains a "New Level:" text input field, an "Add to list" button, and a "List of Levels for 'Location':" list box containing "Less than 2 miles", "Within 2-5 miles", and "Within 5-10 miles". Below the list box are "Up", "Down", and "Delete" buttons. At the bottom of the dialog are "Cancel", "< Previous", and "Next >" buttons.

After entering the attributes and levels for each attribute, you will be prompted with the following dialog box:



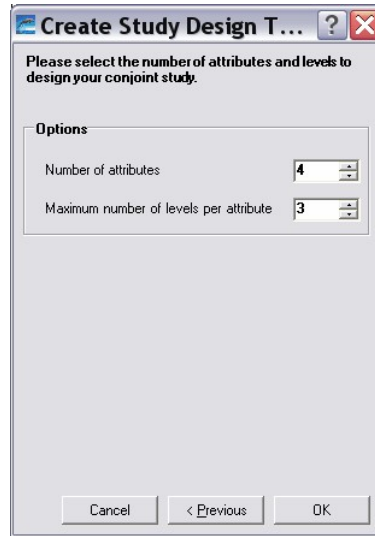
If you click “no”, a generated conjoint study design immediately appears in a new Excel workbook, as shown below. Clicking “yes” is equivalent to selecting ME ► XL ► CONJOINT ► CREATE DATA COLLECTION TEMPLATE in the Excel menu.

Attributes / Levels	Level 1	Level 2	Level 3
Location	Less than 2 miles	Within 2.5 miles	Within 5-10 miles
Office supplies	Very large assortment	Large assortment	Limited assortment
Furniture	Office furniture	No furniture	
Computers	No computers	Software only	Software and computers

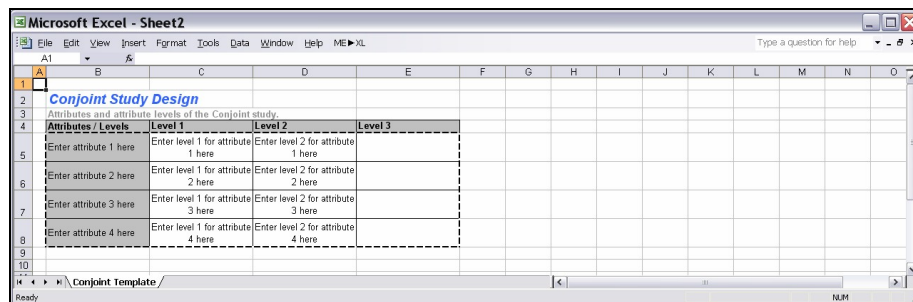
Not using the interactive assistant

If you decide not to use the interactive assistant, the following dialog box will appear, asking you to specify the:

- **Number of attributes.** The *OfficeStar* example uses four attributes to describe a store: location, assortment of office supplies, whether it sells furniture, and whether it offers computer supplies and software packages.
- **Maximum number of levels.** The *OfficeStar* example uses two to three levels per attribute, so the maximum number of levels is 3.



Click OK to generate a new blank spreadsheet. You must enter all attributes and levels manually in the spreadsheet.



Step 2 Creating a data collection template

The first step, generating the study design, is necessary to describe the attributes and levels used in your conjoint study. After you have developed this basic study structure, you must generate a template to collect or enter customer data. These data will elicit customers' preferences for the different attribute levels and thus clarify the kind of trade-offs consumers are willing to make.

To create a data collection template, select ME ► XL → CONJOINT → CREATE DATA COLLECTION TEMPLATE in the Excel menu. Alternatively, after creating the study design template using the interactive assistant, you may simply confirm that you want the data collection template generated immediately.

The following dialog box appears:

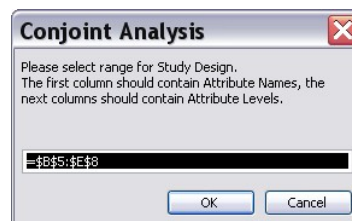


Many techniques can elicit customers' preferences, including choice-based conjoint, partial profile ratings, full profile ratings, and adaptive conjoint. *Marketing Engineering for Excel* offers two methods to elicit customers' preferences:

- **Self-explicated** is the most straightforward. Respondents distribute 100 points among the different attributes (more points represent more important attributes in the choice process) and rank the different levels for each attribute in their order of preference. For example, a respondent might allocate 8 points out of 100 to the attribute "color" (color is not a very important factor in his or her choice), and then assign ranks of 1 to the color "blue" and 2 to the color "red" (prefers blue to red).
- **Ratings** require a more involved and complex but usually more reliable method to elicit respondents' preferences. The ratings method creates a list of hypothetical products (or **bundles** of attributes) and asks respondents to assign a score (say, between 0 and 100) to each bundle, such that more points represent higher preferences. *Marketing Engineering for Excel* can infer from these ratings which attributes (and levels) drive consumer preferences, and hence their choices.

The dialog box also asks you to specify the **number of respondents** for whom you want to create a data collection template.

When you click Next, the software will ask you to select the range of cells for the study design.



If you have selected **Ratings**, the software automatically generates a list of bundles for your respondents to rate. The exact number of bundles depends on the complexity of your study design. The more attributes and levels you

have, the more bundles your respondents will need to rate to provide an estimate of their preferences.

Microsoft Excel - Sheet3

File Edit View Insert Format Tools Data Window Help ME XL

Type a question for help

A	B	C	D	E	F	G	H	I	J	K	L	M
1	Conjoint Study Design											
2	Attributes and attribute levels of the Conjoint study.											
3	Attributes / Levels	Level 1	Level 2	Level 3								
4	Location	Less than 2 miles	Within 2-5 miles	Within 5-10 miles								
5	Office supplies	Very large assortment	Large assortment	Limited assortment								
6	Furniture	Office furniture	No furniture									
7	Computers	No computers	Software only	Software and computers								
8												
9												
10	Bundles											
11	Attribute levels for a full profile, fractional design Conjoint study											
12	Attributes / Bundles	Bundle 1	Bundle 2	Bundle 3	Bundle 4	Bundle 5	Bundle 6	Bundle 7	Bundle 8	Bundle 9		
13	Location	Less than 2 miles	Less than 2 miles	Less than 2 miles	Within 2-5 miles	Within 2-5 miles	Within 2-5 miles	Within 5-10 miles	Within 5-10 miles	Within 5-10 miles		
14	Office supplies	Very large assortment	Large assortment	Limited assortment	Very large assortment	Large assortment	Limited assortment	Very large assortment	Large assortment	Limited assortment		
15	Furniture	Office furniture	Office furniture	No furniture	No furniture	Office furniture	Office furniture	Office furniture	No furniture	Office furniture		
16	Computers	No computers	Software only	Software and computers	Software only	Software and computers	No computers	Software and computers	No computers	Software only		
17												
18												
19												
20	Respondents' Ratings											
21	Respondents' ratings for each bundle (use consistent scale, e.g., between 0 and 100)											
22	Respondents / Ratings	Bundle 1	Bundle 2	Bundle 3	Bundle 4	Bundle 5	Bundle 6	Bundle 7	Bundle 8	Bundle 9		
23	Respondent 1											
24	Respondent 2											
25	Respondent 3											
26	Respondent 4											
27	Respondent 5											
28												
29												
30												

Ready

If you select **Self-explicated**, the software generates the template below, in which the first columns refer to ranking of the levels and the last columns indicate the distribution of points to the different attributes.

Microsoft Excel - Sheet4

File Edit View Insert Format Tools Data Window Help ME XL

Type a question for help

A	B	C	D	E	F	G	H	I	J	K	L	
1	Conjoint Study Design											
2	Attributes and attribute levels of the Conjoint study.											
3	Attributes / Levels	Level 1	Level 2	Level 3								
4	Location	Less than 2 miles	Within 2-5 miles	Within 5-10 miles								
5	Office supplies	Very large assortment	Large assortment	Limited assortment								
6	Furniture	Office furniture	No furniture									
7	Computers	No computers	Software only	Software and computers								
8												
9												
10	Respondents' Self-Reported Preferences											
11	To indicate preferences within each attribute, indicate the most preferred level by a "1", the second most preferred by a "2", etc.											
12	Then, distribute 100 points between the attributes in the "Attribute Importance" columns.											
13	Respondents / Attributes and Levels	Preferences for Location	Preferences for Office supplies	Preferences for Furniture	Preferences for Computers							
14		Less than 2 miles	Within 2-5 miles	Within 5-10 miles	Very large assortment	Large assortment	Limited assortment	Office furniture	No furniture	No computers	Software only	Soft comp
15	Respondent 1											
16	Respondent 2											
17	Respondent 3											
18	Respondent 4											
19	Respondent 5											
20												
21												
22												

Ready

Step 3 Entering your data



In this tutorial, we use the example file "OfficeStar (Conjoint Data, Part 1).xls," which uses the ratings method. In the default condition, that file appears in "My Documents/My Marketing Engineering/."

To view a proper data format, open that spreadsheet in Excel. A snapshot is reproduced below.

Bundles									
Attributes / Bundles	Bundle 1	Bundle 2	Bundle 3	Bundle 4	Bundle 5	Bundle 6	Bundle 7	Bundle 8	Bundle 9
Location	Less than 2 miles	Less than 2 miles	Less than 2 miles	Within 2-5 miles	Within 2-5 miles	Within 2-5 miles	Within 5-10 miles	Within 5-10 miles	Within 5-10 miles
Office supplies	Very large assortment	Large assortment	Limited assortment	Very large assortment	Large assortment	Limited assortment	Very large assortment	Large assortment	Limited assortment
Furniture	Office furniture	Office furniture	No furniture	No furniture	Office furniture	Office furniture	Office furniture	No furniture	Office furniture
Computers	No computers	Software only	Software and computers	Software only	Software and computers	No computers	Software and computers	No computers	Software only

Respondents' Ratings									
Respondents / Ratings	Bundle 1	Bundle 2	Bundle 3	Bundle 4	Bundle 5	Bundle 6	Bundle 7	Bundle 8	Bundle 9
Respondent 1	79	80	42	58	50	41	71	33	30
Respondent 2	96	81	73	50	51	29	67	26	20
Respondent 3	50	44	41	31	38	23	38	16	11
Respondent 4	49	45	37	49	44	29	50	33	30
Respondent 5	65	57	63	53	50	39	47	22	26
Respondent 6	86	62	58	74	60	51	67	31	28
Respondent 7	49	34	22	41	32	20	46	25	15
Respondent 8	83	93	77	60	66	60	66	35	46
Respondent 9	49	30	23	33	30	22	48	12	11
Respondent 10	67	52	51	66	43	15	72	19	29
Respondent 11	38	30	21	40	22	19	27	25	9
Respondent 12	57	47	49	50	56	28	58	19	14
Respondent 13	79	77	88	47	68	40	71	40	37
Respondent 14	96	98	48	74	98	56	93	65	34
Respondent 15	53	47	47	39	29	21	36	18	22
Respondent 16	64	61	58	35	48	27	48	28	22
Respondent 17	60	59	49	54	53	36	55	41	35
Respondent 18	90	89	87	62	66	68	89	66	66
Respondent 19	68	67	47	50	48	29	46	32	16
Respondent 20	93	52	46	59	30	18	77	6	12

Step 4 Estimating preference partworths

When you have entered your respondents' answers (ratings or self-explicated data), you must proceed to the next step of conjoint analysis: estimating your respondents' preferences for each attribute and level, or preference partworths.

To estimate preference partworths from a set of ratings (note that the same logic applies to self-explicated data), select ME ▶ XL → CONJOINT → ESTIMATE PREFERENCE PARTWORTHS in the Excel menu. The following dialog box appears:

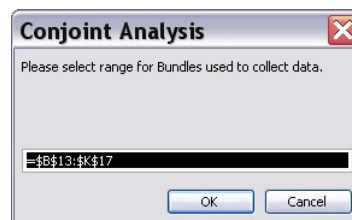
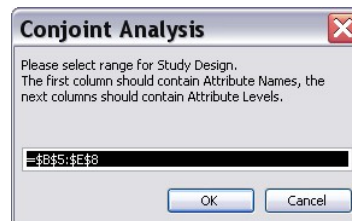


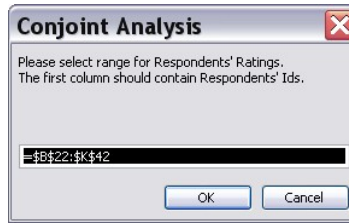
You must specify (1) what type of method (self-explicated or ratings) you used to collect data and (2) whether your data contain identifiers for each respondent that need to be carried into the next steps of the analysis.

If you used *Marketing Engineering for Excel* to generate the data collection template, these options already will be populated with the correct choices, and you should not change them.

You then must select various cell ranges in the Excel workbook, namely:

- **Study design template** (attributes and levels).
- **Bundles** used to collect data.
- **Ratings** entered by your respondents.





The newly generated spreadsheet contains respondents' estimated preference partworths.

Respondents' Attributes and Levels	Less than 2 miles	Within 2.5 miles	Within 5-10 miles	Very large assortment	Large assortment	Limited assortment	Office furniture	No furniture	No computers	Software only	Soft comp
Respondent 1	25	8	0	29	16	0	17	0	3	0	0
Respondent 2	47	6	0	31	12	0	8	0	0	0	0
Respondent 3	44	17	0	28	14	0	9	0	2	0	0
Respondent 4	19	10	0	55	28	0	5	0	0	14	0
Respondent 5	56	29	0	22	1	0	2	0	0	6	0
Respondent 6	39	29	0	44	8	0	7	0	2	0	0
Respondent 7	16	6	0	67	29	0	8	0	3	0	0
Respondent 8	50	14	0	17	8	0	14	0	0	14	0
Respondent 9	19	9	0	47	10	0	17	0	6	0	0
Respondent 10	22	2	0	48	8	0	1	0	0	20	0
Respondent 11	26	18	0	51	26	0	0	12	11	8	0
Respondent 12	30	21	0	35	14	0	6	0	0	4	0
Respondent 13	46	3	0	15	10	0	5	0	0	1	0
Respondent 14	19	14	0	49	48	0	19	0	4	0	0
Respondent 15	55	10	0	29	3	0	0	0	0	12	0
Respondent 16	49	9	0	25	17	0	6	0	0	1	0
Respondent 17	33	11	0	44	30	0	5	0	0	10	0
Respondent 18	34	12	0	30	14	0	7	0	0	10	0
Respondent 19	49	18	0	40	30	0	5	0	0	2	0
Respondent 20	30	4	0	49	4	0	10	0	0	2	0

To interpret the results, note that

- As a convention, the least preferred level of each attribute gets set to 0 for all respondents.
- As another convention, if you take the most preferred levels of all attributes and sum them, the total will equal 100. This rule ensures the consistency of respondents' scales.
- The importance of an attribute equals the value of the most preferred level for that attribute. The first respondent in the *OfficeStar* example considers a store within two miles worth 25 points and a store that offers a very large assortment of office supplies worth 50 points. Therefore, for this respondent, office supply assortment is twice as important as store location.



A very important application of conjoint analysis *segments* customers' needs and preferences. You can use estimated preference partworths to identify segments of customers who share similar likes and dislikes and value certain attributes to approximately the same extent.

To run a segmentation analysis, refer to the *segmentation/targeting* software of the *Marketing Engineering for Excel* suite and apply the segmentation software to respondents' preference partworths.

Step 5 Creating analysis template



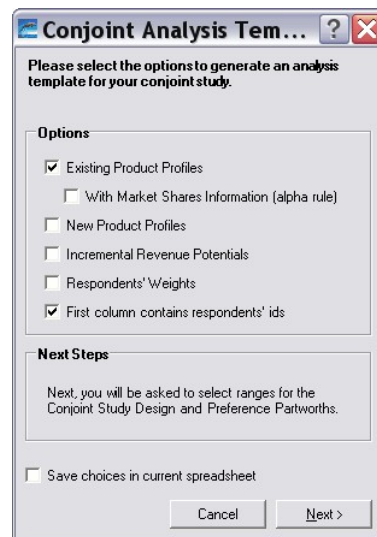
If you want to skip this section and run a conjoint analysis immediately, open "OfficeStar (Conjoint Data, Part 2).xls". In the default condition, that file appears in "My Documents/My Marketing Engineering/."

This file contains respondents' preference partworths, as well as an analysis template already filled in.

Respondents' preference partworths can be interesting to analyze in and of themselves: What are the most important attributes (or features), what are the most preferred levels (or options), and so forth?

To exploit the potential of conjoint analysis fully for applications such as market simulations, new product design optimization, or full-blown trade-off analyses, you need to create a template in which you specify the type of analysis you plan to run, as well as the data needed to run it.

Select ME ► XL → CONJOINT → CREATE ANALYSIS TEMPLATE in the Excel menu. The following dialog box appears:

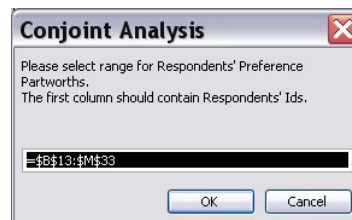
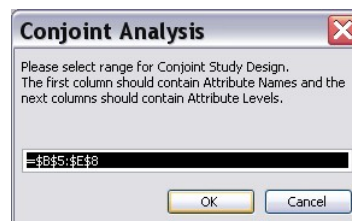


- **Existing Product Profiles** (or existing bundles). Some options currently exist in the market, such as products or services offered by competitors or your company. You must describe these existing products if you plan to study the market potential of new offerings, which are gauged in reference to what already exists in the market, or analyze cannibalization effects.
- **...With Market Share Information.** If you know the current market shares of existing products, you can infer a more precise relationship between preferences (preference partworths) and choices (market shares), which enhances the predictive value of your simulations. Of course, you must also know exactly what alternatives already exist.
- **New Product Profiles** (or new bundles). Check this option if you have a predefined list of potential candidate products that you contemplate

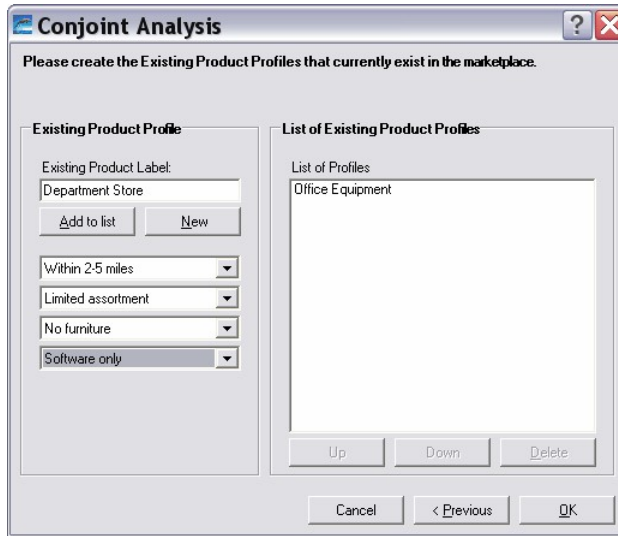
introducing in the market. If you do not, the software will test all possible combinations and identify those with the highest market share potentials.

- **Incremental Revenue Potentials.** Conjoint simulations find the products that optimize potential market shares. However, because of cost considerations, the customer's "ideal" bundle is not always the choice that results in the highest profits for the firm. Therefore, check this option only if you can allocate a specific price (or revenue potential) to each level, which will enable you to run simulations based on *revenue* rather than *market share* optimization.
- **Respondents' Weights.** Some categories of customers might be overrepresented in your sample. Check this option if you have enough data to correct for these biases by weighting some respondents more heavily. For instance, if 50% of the market consists of men but your sample is only 33% men, you can give a weight of 2.0 to all the men and a default weight of 1.0 to all women. That is, men in the sample count twice as much as women in the simulation, which better balances the sample. If in doubt, do not check this option; the software then gives a weight of 1.0 to all respondents in your sample.

Click Next, then select the various cell ranges in the Excel workbook.



If you checked the "Existing Product Profiles" option, you now need to create those profiles using the following dialog box. If you checked the "New Product Profiles" option, the same procedure will apply subsequently.



These steps lead to the generation of a workbook similar to the following (in this example, only the "Existing Product Profiles" and "Incremental Revenue Potentials" were checked):

Conjoint Study Design

Attributes / Levels	Level 1	Level 2	Level 3
Location	Less than 2 miles	Within 2-5 miles	Within 5-10 miles
Office supplies	Very large assortment	Large assortment	Limited assortment
Furniture	Office furniture	No furniture	
Computers	No computers	Software only	Software and computers

Revenue Potentials

Attributes / Levels	Level 1	Level 2	Level 3
Location	0	Enter incremental revenue for Within 2-5 miles here	Enter incremental revenue for Within 5-10 miles here
Office supplies	0	Enter incremental revenue for Large assortment here	Enter incremental revenue for Limited assortment here
Furniture	0	Enter incremental revenue for No furniture here	
Computers	0	Enter incremental revenue for Software only here	Enter incremental revenue for Software and computers here

Microsoft Excel - Sheet10

File Edit View Insert Format Tools Data Window Help ME XL

Type a question for help

21

22 Respondents' Preference Partworths

23 Respondents' preference partworths. The most preferred profiles sum up to 100, the least preferred to 0.

Respondents / Attributes and Levels	Less than 2 miles	Within 2-5 miles	Within 5-10 miles	Very large assortment	Large assortment	Limited assortment	Office furniture	No furni
Respondent 1	25	8	0	50	16	0	17	
Respondent 2	47	6	0	31	12	0	8	
Respondent 3	44	17	0	28	14	0	9	
Respondent 4	19	10	0	55	28	0	5	
Respondent 5	55	28	0	22	1	0	2	
Respondent 6	39	29	0	44	8	0	7	
Respondent 7	16	6	0	67	29	0	8	
Respondent 8	50	14	0	17	8	0	14	
Respondent 9	19	9	0	47	10	0	17	
Respondent 10	22	2	0	48	8	0	1	
Respondent 11	26	18	0	51	26	0	0	
Respondent 12	30	21	0	35	14	0	6	
Respondent 13	46	3	0	15	10	0	5	
Respondent 14	19	14	0	49	49	0	19	
Respondent 15	56	10	0	29	3	0	0	
Respondent 16	49	9	0	25	17	0	6	
Respondent 17	33	11	0	44	30	0	5	
Respondent 18	34	12	0	30	14	0	7	
Respondent 19	49	18	0	40	30	0	5	
Respondent 20	30	4	0	49	4	0	10	

27 Existing Product Profiles

28 Labels and attribute levels for each existing product profile that already exists in the market.

Attributes / Existing Product Profiles	Office Equipment	Department Store
Location	Within 2-5 miles	Within 2-5 miles
Office supplies	Large assortment	Limited assortment
Furniture	Office furniture	No furniture
Computers	Software and computers	Software only

Microsoft Excel - Sheet10

File Edit View Insert Format Tools Data Window Help ME XL

Type a question for help

1

2 Conjoint Study Design

3 Attributes and attribute levels of the Conjoint study.

Attributes / Levels	Level 1	Level 2	Level 3
Location	Less than 2 miles	Within 2-5 miles	Within 5-10 miles
Office supplies	Very large assortment	Large assortment	Limited assortment
Furniture	Office furniture	No furniture	
Computers	No computers	Software only	Software and computers

11 Revenue Potentials

12 Incremental revenue potentials (possibly negative) for each attribute level, compared to the base product.

13 The base product revenue is 100.

14 The base level of each attribute is the base product.

Attributes / Levels	Level 1	Level 2	Level 3
Location	0	10	30
Office supplies	0	5	15
Furniture	0	30	
Computers	0	-5	-25

Step 6 Entering analysis data

Some cells in the data analysis template need to be filled in before proceeding, including:

- **Market Share Information** about existing product profiles.
- **Incremental Revenue Potentials** of all levels.
- **Respondents' Weights.**

Microsoft Excel - Sheet10

File Edit View Insert Format Tools Data Window Help ME XL

Type a question for help

1

2 Conjoint Study Design

3 Attributes and attribute levels of the Conjoint study.

Attributes / Levels	Level 1	Level 2	Level 3
Location	Less than 2 miles	Within 2-5 miles	Within 5-10 miles
Office supplies	Very large assortment	Large assortment	Limited assortment
Furniture	Office furniture	No furniture	
Computers	No computers	Software only	Software and computers

11 Revenue Potentials

12 Incremental revenue potentials (possibly negative) for each attribute level, compared to the base product.

13 The base product revenue is 100.

14 The base level of each attribute is the base product.

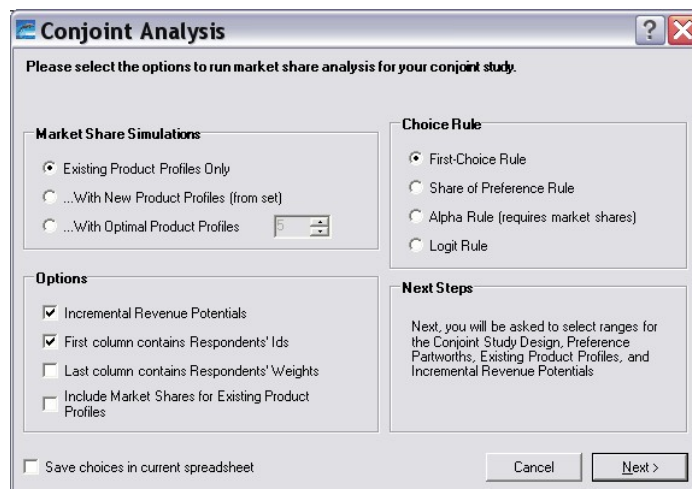
Attributes / Levels	Level 1	Level 2	Level 3
Location	0	10	30
Office supplies	0	5	15
Furniture	0	30	
Computers	0	-5	-25

In the preceding example, moving the store 5-10 miles away would increase revenues by +30% (compared with a base level of a store within 2 miles, perhaps due to higher rent costs); offering software and computers in the

store would decrease revenues by -25% (due to higher operational costs, maintenance, and stock obsolescence). Although customers clearly prefer a closer store to a distant one, conjoint analysis indicates—on the basis of a preference analysis, market share simulations, and revenue potential—whether building a new store within two miles is worth the extra cost.

Step 7 Running analyses

After you enter your data in the Excel spreadsheet using the appropriate format, click on ME ▶ XL → CONJOINT → RUN ANALYSIS. The dialog box that appears indicates the next steps required to perform a conjoint analysis of your data.



Existing product profiles

In this area, specify whether you want to perform market share simulations:

- On **existing product profiles** only, which simply simulates the actual market.
- **...With new product profiles** you have defined by taking into account existing product profiles and simulating the introduction of your manually specified new product profiles.
- **...With optimal product profiles**, which tests all possible combinations of new product introductions and keeps those that lead to the highest market shares (or revenues, if you have checked that option), after taking into account existing product profiles in the current market and thus identifying new opportunities, or “holes,” in the market.

Options

These options reflect and confirm the choices you made when you created the data analysis template. Please refer to the previous section for explanations.

Choice rule

You can use several methods to translate preferences into choices, depending on the product category and information available.

- **Maximum utility rule:** Each respondent selects the product that provides the highest utility among competing products and a specific new product concept being evaluated. If customers buy products in the product category infrequently and/or are highly involved in the purchase decision (e.g., house, car, expensive computer), the maximum utility rule is preferable.
- **Share of utility rule:** Each respondent's share of purchases of a particular product is a function of his or her utility for that product, compared with the total utility for all products in the competitive set. This analysis option is most suitable for products that customers buy frequently and/or for which they are less involved in the purchase decision (e.g., a meal).
- **Logit choice rule:** The share of each product for each respondent is a function of the weighted utility for that product, compared with the total weighed utility for all products in the competitive set. The weighting uses an exponential function. This analysis option provides an alternative to the share of utility model.
- **Alpha rule:** A weighted combination of the maximum utility rule and the share of utility rule, this method chooses a weight (alpha) that ensures the market shares computed in the simulation are as close as possible to the actual market shares of the existing products in the market. This option is available only if you can provide information about the market shares of existing products in the segment to which you are targeting the new product.

Next steps

When you click Next, you are prompted to select data ranges to run the conjoint analysis. If you followed the previous steps, all your data should be contained in the last workbook generated by *Marketing Engineering for Excel*, and all cell ranges should be properly pre-selected, depending on the options you selected.

The new generated workbook offers the results of your conjoint analysis.

Step 8 Interpreting the results

For illustration, the following workbook was generated using the following options:

- Five optimal product profiles.
- No revenue potentials.
- Logit choice rule.

Main results

The first sheet of the newly generated workbook reports the results of the conjoint analysis, including the market share simulations:

- With the **existing product profiles** only.
- By simulating the introduction of the generated **new product profiles**, one at a time (optional).
- By simulating the introduction of as many **optimal product profiles** as requested, one at a time, beginning with the one that leads to the highest market shares or revenues (optional).

Microsoft Excel - Sheet4

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Market Share Simulations

Market share predictions for different scenarios, using the Logit Rule

Scenario / Product profiles	Office Equipment	Department Store	Optimal Product Profile
Predicted market shares	67.51	32.49	n/a
with Optimal Product 1	24.96	12.02	63.04
with Optimal Product 2	27.45	12.96	59.59
with Optimal Product 3	29.41	13.77	56.82
with Optimal Product 4	30.66	14.45	54.88
with Optimal Product 5	32.02	14.77	53.22

Existing Product Profiles

Labels and attribute levels for each existing product profile that already exists in the market.

Attributes / Existing Product Profiles	Office Equipment	Department Store
Location	Within 2-5 miles	Within 2-5 miles
Office supplies	Large assortment	Limited assortment
Furniture	Office furniture	No furniture
Computers	Software and computers	Software only

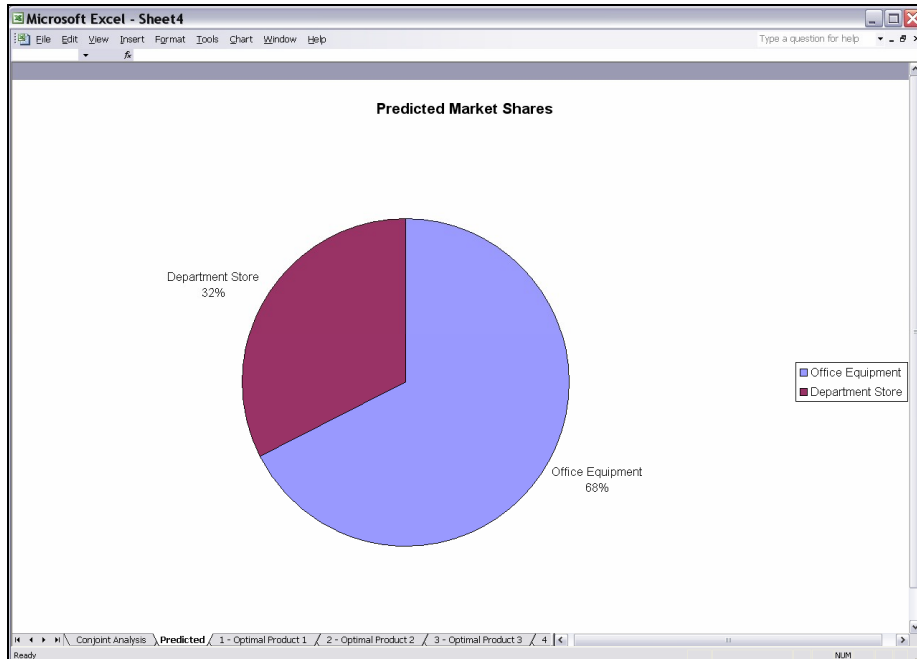
Optimal Product Profiles

Labels and attribute levels for each optimal product profile that the software recommends you introduce in this market.

Attributes / Optimal Product Profiles	Optimal Product 1	Optimal Product 2	Optimal Product 3	Optimal Product 4	Optimal Product 5
Location	Less than 2 miles	Less than 2 miles	Less than 2 miles	Less than 2 miles	Less than 2 miles
Office supplies	Very large assortment	Very large assortment	Very large assortment	Very large assortment	Very large assortment
Furniture	Office furniture	No furniture	Office furniture	Office furniture	No furniture
Computers	Software and computers	Software and computers	Software only	No computers	Software only

Conjoint Analysis / Predicted / 1 - Optimal Product 1 / 2 - Optimal Product 2 / 3 - Optimal Product 3 / 4

In the following chart, notwithstanding new product introductions, conjoint analysis predicts that *Office Equipment* captures 68% of the market (according to the logit rule).



The introduction of a new, optimal product (see the description of "Optimal Product 1" in the first sheet) could capture 63% of the market, and *Office Equipment's* market shares would drop from 68% to 25%.

