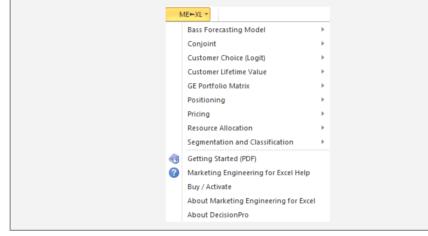
Tutorial Conjoint



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, open *Microsoft Excel*. A new menu appears, called "*ME* \star *XL*." This tutorial refers to the "*ME* \star *XL*/*Conjoint*" submenu.



Overview

Conjoint analysis is an approach for measuring customers' preferences; it is particularly useful for analyzing and predicting 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 factors drive customers' 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' choices?
- ✓ In our market, how many customers are price sensitive? How many are quality-driven in their purchase decisions?

Getting Started

Many *Marketing Engineering for Excel* models allow you to use an interactive assistant, which prompts you for the parameters required by the model and builds a template spreadsheet into which you can to 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. 15). 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 \blacktriangleright XL \rightarrow CONJOINT \rightarrow 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."

🚾 Create Stud	y Design T ? 🔀
Please select how you Conjoint Study Design	uwould like to generate the n Template.
Interactive Assistant	
	e the Interactive Assistant to tudy design template?
Yes	
C No (recommended	d for expert users only)
Cancel	< <u>Previous</u> <u>N</u> ext >

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 property or characteristic of a product category that you can use to build and describe alternative products or services. "Color," "price," or "quality" are examples of attributes. The attributes listed in the dialog box below come from the *OfficeStar* example.

For some attributes, customers may have a natural order of preference. For example, most people will prefer higher quality to lower quality or lower price to higher price. For such attributes, you can choose to impose a preference order (increasing or decreasing) by checking the **Force Pref Order** option.

ME Create Study Design
Enter the attributes of your Conjoint study
Attributes New Attribute: Force Pref Ordering Add to list
List of Attributes:
Up Down Delete
Cancel < Previous Next >

After you have described the attributes, you must enter levels for each in the next step. Whereas an **attribute** represents a characteristic such as color, price, or warranty, 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.

Some attributes may have a **preference** order. For example, an attribute such as price or distance may have an order preference. If a respondent will not purchase an item at \$2.00, we can assume they will also not purchase the same item at \$3.00. For each attribute you specify you may use the check box to include a column which will allow you to specify the order preference. When the check box is not used, all attributes are treated as being unordered in terms of respondent preferences.

🖻 Create Study Design 💦 🔹 🔀
Enter the levels for the "Location" attribute
Levels for "Location"
New Level:
Add to list
List of Levels for "Location": Less than 2 miles
Within 2-5 miles Within 5-10 miles
Up Down Delete
Cancel < <u>P</u> revious <u>N</u> ext >

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 appears in a new Excel workbook, as shown below. Clicking "yes" is equivalent to selecting ME \blacktriangleright XL \rightarrow CONJOINT \rightarrow CREATE DATA COLLECTION TEMPLATE in the Excel menu.

Conjoint Study D	esign			
Attributes and attributes	ite levels of the Co	njoint study.		
Attributes / Levels	Level 1	Level 2	Level 3	Ordering
Location	Less than 2 miles	Within 2-5 miles	Within 5-10 miles	Decreasing
Office supplies	Very large assortment	Large assortment	Limited Assortment	Unordered
Furniture	Office Furniture	No Furniture		Unordered
Computers	No computers	Software only	Software and computers	Unordered
				+

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.

🕿 Create Study Design T	? 🗙
Please select the number of attributes a design your conjoint study.	nd levels to
0	
Options	
Number of attributes	4 📑
Maximum number of levels per attribute	3 ÷
Cancel < Previous	ок (
	UK

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

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4	Attributes / Le				Level 3										
5	Enter attribute	1 here	Enter level 1 for attribute 1 here	Enter level 2 for attribute 1 here											
6	Enter attribute 2	2 here	Enter level 1 for attribute 2 here	Enter level 2 for attribute 2 here											
7	Enter attribute 3	3 here	Enter level 1 for attribute 3 here	Enter level 2 for attribute 3 here											-
8	Enter attribute 4	4 here	Enter level 1 for attribute 4 here	Enter level 2 for attribute 4 here											
9 10															
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Ready														NUM	

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

The following dialog box appears:

ME Create Conjoint Data Collection Tem 😢 💌
Please select the options to generate a data collection template for your conjoint study.
Method
C Self-Explicated
Ratings
Column for Force Preference Ordering
(If you choose Ratings, appropriate bundles will be generated automatically)
Survey
Number of respondents 5
Next Steps
Next, you will be asked to select the Cell Range for the Conjoint Study Design.
(what is this?)
Save choices in current spreadsheet
Cancel Next >

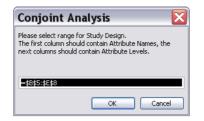
Many techniques can elicit customers' preferences for products, including choice-based conjoint, partial profile ratings, full profile ratings, and adaptive conjoint. *Marketing Engineering for Excel* offers two methods to elicit customers' preferences:

- **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 customers' choices.

The check box "**Column for Force Preference Ordering**" should be checked if any of the included attributes have an order preference. This check box will affect the number of bundles generated by Conjoint.

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 "product 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.

Conjoint Study Des	sign															
Attributes and at	tribute level	s of the Con	joint study.													
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Attributes / Leve		Level 2	Level 3	Ordering												
Location	Less than 2		Within 5-10	Decreasing	i											
Loodion	miles	miles		L	ļ											
Office supplies	Very large	Large	Limited	Unordered												
	assortment Office	assortment	Assortment													
Furniture	Furniture	No Furniture		Unordered												
Computers	No	Software only	Software and	Unordered												
Comparens	computers		_ computers_													
Bundles																
Attribute levels f																
Attributes / Bunc					Bundle 5	Bundle 6	Bundle 7	Bundle 8			Bundle 11				Bundle 15	
		Less than 2	Less than 2	Less than 2	Within 2-5	Within 2-5	Within 2-5	Within 2-5	Within 5-10	Within 5-10	Within 5-10	Within 5-10	Within 2-5	Within 2-5	Within 2-5	Within 2-5
	miles	miles	miles	miles	miles	miles	miles	miles	miles	miles	miles	miles	miles	miles	miles	miles
Office supplies	Verylarge	Large assortment	Limited Assortment	Large assortment	Very large assortment	Large	Limited	Large	Very large	Large	Limited	Large	Verylarge	Large	Limited	Large
	assortment															
						assortment	Assortment	assortment	assortment	assortment	Assortment	assortment	assortment	assortment	Assortment	assortment
	Office Furniture		No Furniture	Office Furniture	Office Furniture	No Furniture	No Furniture	Office Furniture	No Furniture	Office Furniture	Office Furniture		No Furniture	Office Furniture	Office Furniture	No Furniture
Computers	Office Furniture No	No Furniture	No Furniture Software and	Office Furniture	Office Furniture	No Furniture No	No Furniture	Office Furniture Software and	No Furniture Software and	Office Furniture	Office Furniture No	No Furniture	No Furniture	Office Furniture Software and	Office Furniture	No Furniture No
Computers	Office Furniture		No Furniture	Office Furniture	Office Furniture	No Furniture		Office Furniture	No Furniture	Office Furniture	Office Furniture	No Furniture		Office Furniture	Office Furniture	No Furniture
Computers	Office Furniture No	No Furniture	No Furniture Software and	Office Furniture	Office Furniture	No Furniture No	No Furniture	Office Furniture Software and	No Furniture Software and	Office Furniture	Office Furniture No	No Furniture	No Furniture	Office Furniture Software and	Office Furniture	No Furniture No
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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.

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A	▼ ,5× B	С	D	E	F	G	Н		J	K	L	
Ī	Conjoint Study	Desian										
	ttributes and attribute		onioint study.									
				Level 3								
í.	ocation	Less than 2 miles	Within 2-5 miles	Within 5-10 miles								
0	ffice supplies	Very large assortment	Large assortment	Limited assortment								
Fu	umiture	Office furniture	No furniture									
C	omputers	No computers	Software only	Software and computers								
B	Respondents' S	Self-Report	ed Preferen	ces								
	o indicate preference				od lovel by a "1"	' the second m	ort proforrod by	a "2" otc				-
- 11	hen, distribute 100 po	inte hetween th	e attributes in the	"Attribute Imn	et rever by a r	, the second in	osc preferred by	a 2 , etc.				-
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• •	H \Conjoint Templat	e/					<		11			

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																
Attribute levels f	or a full-prol	ile, fraction:	al design Co	njoint study												
Attributes / Bund	Bundle 1	Bundle 2	Bundle 3	Bundle 4	Bundle 5	Bundle 6	Bundle 7	Bundle 8	Bundle 9	Bundle 10	Bundle 11	Bundle 12	Bundle 13	Bundle 14	Bundle 15	Bundle 16
Location	Less than 2	Less than 2	Less than 2	Less than 2	Within 2-5	Within 2-5	Within 2-5	Within 2-5	Within 5-10	Within 5-10	Within 5-10	Within 5-10	Within 2-5	Within 2-5	Within 2-5	Within 2-5
Location	miles	miles	miles	miles	miles	miles	miles	miles	miles	miles	miles	miles	miles	miles	miles	miles
Office supplies	Very large	Large	Limited	Large	Very large	Large	Limited	Large	Verylarge	Large	Limited	Large	Verylarge	Large	Limited	Large
once supplies	assortment	assortment	Assortment	assortment	assortment	assortment	Assortment	assortment	assortment	assortment	Assortment	assortment	assortment	assortment	Assortment	assortment
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in annoare	Furniture				Furniture			Furniture		Furniture	Furniture	NOT GITIKGIE			Furniture	
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computers	computers	Sorceale only	computers	Solvale only	Sortware only	computers	Sonware only	computers	computers	- sonware only	computers	Contware only	Sorceale Only	computers	Sorceale Only	computers

Respondents Ruth	nys															
Respondents' ra	tings for eac	sh bundle (u	se consisten	t scale, e.g.	, between 0	and 100)										
Respondents / R	Bundle 1	Bundle 2	Bundle 3	Bundle 4	Bundle 5	Bundle 6	Bundle 7	Bundle 8	Bundle 9	Bundle 10	Bundle 11	Bundle 12	Bundle 13	Bundle 14	Bundle 15	Bundle 16
Respondent 1	90	50	50	80	85	40	40	90	30	60		30	30	90	80	40
Respondent 2	50	55	95	50		40	40	85		35		25	25	85	35	45
Respondent 3	40	60	90	60	45	35	45	85	80	55	40	45	50	85	50	35
Respondent 4	75	80	60	70	90	65	60	85			55		90	85	70	65
Respondent 5	90	80	70	70	80	75	50	75	80		50		80	75	50	75
Respondent 6	95	70	70	80	80	50	50	70	40	60	55	50	60	70	50	55
Respondent 7	95	55	55	80	80	45	40	85	35	60	65	40	25	85	75	45
Respondent 8	45	50	90	45	55	45	35	75					20	75	30	45
Respondent 9	45	60		60		40	50	80					55	80	45	40
Respondent 10	80	80	65	65	85	65	65	80	80	75	60	65	85	90	75	70

Step 4 Estimating preference partworths

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

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

Estimate Preference Partworths
Please select the options to estimate respondents' preference partworths.
Conjoint Data
C Self-Explicated
Ratings
Column for Force Preference Ordering
First column contains respondents' ids
Next Steps
Next, you will be asked to select ranges for the Conjoint Study Design, Bundles and Respondents' Ratings.
Save choices in current spreadsheet Cancel Next >

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.

Conjoint Analysis 🛛 🔀
Please select range for Study Design. The first column should contain Attribute Names, the next columns should contain Attribute Levels.
=\$B\$5:\$E\$8
OK Cancel
Conjoint Analysis
Please select the Cell Range for Study Design Ordering.
OK Cancel
Conjoint Analysis 🛛 🔀
Please select range for Bundles used to collect data.
=\$8\$13:\$X\$17
OK Cancel



Respondents' Pref	erence Partw	orths									
Respondents' preferen	ce partworths.	The most preferre	ed profiles sum u	p to 100, the leas	t preferred to 0.						
Respondents /	Less than 2	Within 2-5	Within 5-10	Very large	Large	Limited	Office	No Furniture	No computers	Software only	Software and
	miles	miles	miles	assortment	assortment	Assortment	Furniture				computers
Respondent 1	31	23	0	2	3	0	55	0	1	0	11
Respondent 2	31	16	0	3	7	0	2	0	0	1	61
Respondent 3	14	0	0	0	6	4	4	0	0	22	76
Respondent 4	17	17	0	47	22	0	9	0	0	17	27
Respondent 5	24	8	0	59	39	0	0	1	9	0	15
Respondent 6	49	17	0	22	12	0	26	0	2	0	0
Respondent 7	31	15	0	0	5	0	52	0	8	0	12
Respondent 8	22	6	0	8	9	0	0	1	3	0	68
Respondent 9	24	7	0	0	1	0	0	1	0	21	74
Respondent 10	18	18	0	43	20	0	12	0	0	15	27
Respondent 11	15	10	0	50	32	0	0	13	22	0	4
Respondent 12	50	3	0	21	17	0	22	0	7	0	1
Respondent 13	27	19	0	4	5	0	55	0	0	1	13
Respondent 14	29	12	0	9	13	0	1	0	4	0	58
Respondent 15	17	3	0	0	1	13	0	9	0	11	61
Respondent 16	16	16	0	51	24	0	2	0	0	21	32
Respondent 17	23	0	0	48	31	0	0	12	0	4	17
Respondent 18	45	12	0	33	22	0	18	0	4	4	0
Respondent 19	35	13	0	22	25	0	17	0	0	6	22
Respondent 20	29	15	0	29	32	0	18	0	3	0	21

The newly generated spreadsheet contains respondents' estimated preference partworths.

Respondents' Preference Partworths

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 uniformity of respondents' preference 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 31 points and a store that offers office furniture worth 55 points. Therefore, for this respondent, office furniture is significantly more important than store location.



A very important application of conjoint analysis is based on a *segmentation analysis* of customers' needs and preferences. The resulting segment structure can be used to identify new products that appeal to specific customer segments. You can use the 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.

You can create many different analysis templates for the same data, and save them under different names. For example, one template could be for market share analysis with a fixed set of new products that a company is considering for introduction into the market. Another template could be for finding the best new product from all possible new products for maximizing revenue potential.

Select ME \blacktriangleright XL \rightarrow CONJOINT \rightarrow CREATE ANALYSIS TEMPLATE in the Excel menu. The following dialog box appears:

ME Create Conjoint Analysis Template
Please select the options to generate an analysis template for your conjoint study.
Options
✓ Existing Product Profiles
With Market Shares Information (alpha rule)
New Product Profiles
I Incremental Revenue Potentials
Unit Revenue for Base Product 100
Restrictions on Attribute Levels
Respondents' Weights
 First column contains respondents' ids
Next Steps
Next, you will be asked to select ranges for the Conjoint Study Design and Preference Partworths.
Save choices in current spreadsheet
Cancel Next >

- **Existing Product Profiles** (or existing bundles). Some options currently exist in the market, such as products or services offered by competitors or your own company. You must describe these existing products if you plan to study the market potential of new offerings, which are gauged with reference to what already exists in the market, or to analyze cannibalization effects of your new product on your company's existing products in the market.
- ...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 have candidate products, the software will test all possible combinations and identify those with the highest market share potentials.
- Incremental Revenue Potentials. Check this option only if you can allocate a specific incremental per unit revenue (or incremental unit contribution) to each level of each attribute, which will enable you to run simulations based on *contribution* or *revenue* rather than based on *market share*. In typical conjoint simulations, the focus is on identifying product(s) that maximize market share. However, products that deliver high market shares need not necessarily result in high profitability for the company because market share computations do not take into account the costs of manufacturing each product bundle.

If you check this option, you will later be asked to specify three pieces of information: (1) specify a base product (i.e., using one base level for each attribute) whose incremental revenue (or contribution) is set to 0; (2) provide information about incremental revenue or contribution (which can be positive or negative) for each attribute level as compared to its level in the base product. If the incremental revenue or contribution is 0 for more than one product, the software will use the level that is the first one starting from left in the table of Revenue Potentials. Ideally, you should select as the base product one that has the highest market share and whose contribution margin (or price) is known; (3) the unit revenue (or contribution) associated with the base product.

When using incremental revenue potential, you may want to include additional fixed costs associated with each product as compared to that of the base product. Also, note our calculations ignore price potential (i.e., what the market might be willing to pay) for all product bundles, except the base product. These considerations reinforce the need for selecting the base product carefully, and interpreting the revenue index in a manner consistent with the aforementioned assumptions.

Restrictions on Attribute Levels

You may want to restrict certain attribute levels in your study. Checking this option will allow you to exclude certain attribute levels during the next step of analysis.

 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.

Conjoint Analysis 🛛 🔀
Please select range for Conjoint Study Design. The first column should contain Attribute Names and the next columns should contain Attribute Levels.
=\$B\$5:\$E\$8
OK Cancel
Conjoint Analysis
Please select range for Respondents' Preference Partworths.
The first column should contain Respondents' Ids.
=\$B\$13:\$M\$33

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.

Conjoint Analysis	? 🔀
Please create the Existing Product Pr	rofiles that currently exist in the marketplace.
Existing Product Profile	List of Existing Product Profiles
Existing Product Label:	List of Profiles
Department Store Add to list Within 2-5 miles Limited assortment No furniture Software only	Office Equipment
	Up Down <u>D</u> elete
	Cancel < <u>P</u> revious <u>O</u> K

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):

Attributes and	l attribute levels	of the Conioint	studų.					
Attributes / Lo	eve Level 1	Level 2	Level 3					
Location	Less than 2 mile	es Vithin 2-5 mi	les Within 5-10	miles				
Office supplies	Very large assortment	Large assortm	nent Limited asso	ortment				
Furniture	Office furniture	e No furnitur	e					
Computers	No computers	s Software or	nlySoftware					
A value of '1'	ts or levels for mark means that the le means that the le Level 1	vel will be includ	led in optimal pr	oducts.				
Location	1	1	1					
Office supplies	1	1	1					
Furniture	1	1						
Computers	1	1	1					
Revenue Potent	ials							
The template'	venue potentials s base product re l of each attribut	venue is set to	100.		ompared to the bas	se product.		
Attributes / Lo		Level 2	Level 3					
Location		- r						
	0	10	30	i				
Office supplies	0	10 5	30 15					
Office supplies	0	5	15	referred to 0.				
Office supplies Respondents' prefere Respondents /	-	5	15	Very large	Large assortment	Limited Assortment	Office Furniture	No Fu
Office supplies Respondents' prefere Respondents / Attributes and Levels Respondent 1	0	5 st preferred profiles sur Within 2-5 miles 23	15 n up to 100, the least p Within 5-10 miles 0	Very large assortment 2	Large assortment	0	Office Furniture 55	No Fi
Office supplies Respondents' prefere Respondents / ttributes and Levels Respondent 1 Respondent 2	0 Less than 2 miles 31 31	5 Within 2-5 miles 23 16	15 Within 5-10 miles 0 0	Very large assortment 2 3	3 7	0	55 2	No Fi
Office supplies espondents' prefere- espondents / ttributes and Levels espondent 1 espondent 2 espondent 3	0 Less than 2 miles 31 14	5 wit preferred profiles sur Within 2-5 miles 23 16 0	15 m up to 100, the least p Within 5-10 miles 0 0 0	Very large assortment 2 3 0	3 7 6	0 0 4	55 2 4	No F
Office supplies tespondents' prefere tespondents / turbiutes and Levels tespondent 1 tespondent 2 tespondent 3 tespondent 4	0 Less than 2 miles 31 31 14 17	5 Within 2-5 miles 23 16 0 17	15 within 5-10 miles 0 0 0 0	Very large assortment 2 3 0 47	3 7 6 22	0 0 4 0	55 2 4 9	No F
Office supplies espondents' prefere espondents / ttributes and Levels espondent 1 espondent 2 espondent 2 espondent 4 espondent 5	0 Less than 2 miles 31 14 17 24	5 Within 2-5 miles 23 16 0 17 8	15 Within 5-10 miles 0 0 0 0 0 0	Very large assortment 2 3 0 47 59	3 7 6 22 39	0 0 4 0 0	55 2 4 9 0	No F
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Office supplies espondents' prefere- lespondents / ttributes and Levels lespondent 1 espondent 2 lespondent 4 lespondent 4 lespondent 5 lespondent 7	0 Less than 2 miles 31 14 17 24 49 31	5 Within 2-5 miles 23 16 0 17 8 17 15	15 Within 5-10 miles 0 0 0 0 0 0 0 0 0 0 0 0 0	Very large assortment 2 3 0 47 59 22 0	3 7 6 22 39 12 5	0 0 4 0 0 0 0	55 2 4 9 0 26 52	No F
Office supplies espondents' prefere- lespondents / stributes and Levels tespondent 2 lespondent 2 lespondent 4 lespondent 4 lespondent 5 lespondent 5 lespondent 7 lespondent 7 lespondent 8	0 Less than 2 miles 31 14 17 24 49 31 22	5 Within 2-5 miles 23 16 0 17 8 17 15 6	15 Within 5-10 miles 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	Very large assortment 2 3 0 47 59 22 0 0 8	3 7 6 22 39 12 5 9	0 0 4 0 0 0 0 0 0	55 2 4 9 0 26 52 0	No F
Office supplies espondents' prefere- espondents / ttributes and Levels tespondent 1 despondent 3 tespondent 4 tespondent 4 tespondent 6 tespondent 7 tespondent 8 tespondent 9	0 Less than 2 miles 31 31 14 17 24 49 31 22 24	5 Within 2-5 miles 23 16 0 17 8 17 15 6 7	15 Within 5-10 miles 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	Very large assortment 2 3 0 47 59 22 22 0 8 8 0	3 7 6 22 39 12 5 9 1	0 0 4 0 0 0 0 0 0 0 0 0 0	55 2 4 9 0 26 52 0 0	No F
Office supplies espondents' prefere espondents / ttributes and Levels espondent 1 espondent 2 espondent 2 espondent 4 espondent 4 espondent 5 espondent 7 espondent 7 espondent 9 espondent 9	0 Less than 2 miles 31 14 17 24 49 31 22 24 18	5 Within 2-5 miles 23 16 0 17 8 17 15 6 7 18	15 Within 5-10 miles 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	Very large assortment 2 3 0 47 59 22 0 8 0 8 0 0 8 0 0 43	3 7 6 22 39 12 5 9 1 1 20	0 0 4 0 0 0 0 0 0 0 0 0 0	55 2 4 9 0 26 52 0 0 12	No F
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Office supplies espondents' prefere- espondents / ttributes and Levels espondent 2 espondent 2 espondent 2 espondent 4 espondent 4 espondent 6 espondent 7 espondent 9 espondent 10 espondent 11	0 Less than 2 miles 31 31 14 17 24 49 31 22 24 18 15 50	5 Within 2-5 miles 23 16 0 17 8 17 17 6 6 7 18 10	15 Within 5-10 miles 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	Very large assortment 2 3 0 47 59 22 0 8 0 8 0 0 8 0 0 43	3 7 6 22 39 12 5 9 1 20 32 17	0 0 4 0 0 0 0 0 0 0 0 0 0 0 0 0	55 2 4 9 0 26 52 0 0 0 12 0 22	No F
Office supplies espondents' prefere espondents / ttributes and Levels espondent 1 espondent 2 espondent 2 espondent 4 espondent 4 espondent 5 espondent 6 espondent 7 espondent 7 espondent 10 espondent 11 espondent 13	0 Less than 2 miles 31 31 14 17 24 49 31 22 24 18 15	5 Within 2-5 miles 23 16 0 17 8 17 15 6 7 18 10 3 19	15 Within 5-10 miles 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	Very large assortment 2 3 0 47 59 222 0 8 0 8 0 43 50 21	3 7 6 22 39 12 5 9 1 1 20 32 17 5	0 0 4 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	55 2 4 9 0 26 52 0 0 12 0	
Office supplies espondents' prefere espondents / ttributes and Levels espondent 2 espondent 3 espondent 4 espondent 4 espondent 6 espondent 6 espondent 7 espondent 18 espondent 11 espondent 13 espondent 13	0 Less than 2 miles 31 14 17 24 49 31 22 24 18 15 50 27	5 Within 2-5 miles 23 16 0 17 8 17 15 6 7 15 6 7 18 10 3	15 Within 5-10 miles 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	Very large assortment 2 3 0 47 59 22 0 8 8 0 43 50 21 4 4	3 7 6 22 39 12 5 9 1 20 32 17	0 0 4 0 0 0 0 0 0 0 0 0 0 0 0 0	55 2 4 9 0 26 52 0 0 12 0 22 55	No 6
Office supplies espondents' prefere espondents / ttributes and Levels espondent 2 espondent 2 espondent 4 espondent 4 espondent 4 espondent 5 espondent 7 espondent 7 espondent 10 espondent 11 espondent 13 espondent 13	0 Less than 2 miles 31 14 17 24 49 31 22 24 18 15 50 27 29 17	5 Within 2-5 miles 23 16 0 17 8 17 15 6 7 18 10 3 19 12 3	15 Within 5-10 miles 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	Very large assortment 2 3 0 47 59 222 0 8 8 0 43 50 21 4 9 9 0 0	3 7 6 22 39 12 5 9 1 2 0 32 17 5 13	0 4 0 0 0 0 0 0 0 0 0 0 0 0 0	55 2 4 9 0 26 52 0 0 0 12 0 22 55 1	
Office supplies espondents' prefere- espondents / ttributes and Levels tespondent 1 tespondent 1 tespondent 3 tespondent 4 tespondent 4 tespondent 6 tespondent 7 tespondent 7 tespondent 10 tespondent 11 tespondent 11 tespondent 13 tespondent 14 tespondent 14 tespondent 14	0 Less than 2 miles 31 31 14 17 24 49 31 22 24 18 15 50 27 29	5 Within 2-5 miles 23 16 0 17 8 17 15 6 7 18 10 3 3 19 12	15 Within 5-10 miles 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	Very large assortment 2 3 0 47 59 222 0 8 8 0 43 50 21 4 3 9 9	3 7 6 22 39 12 5 9 1 20 52 17 5 13 1	0 0 4 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	55 2 4 9 0 26 52 0 0 12 0 0 12 0 22 55 1 0	No F
Office supplies copondents' prefere- lespondents / ttributes and Levels lespondent 3 lespondent 2 lespondent 2 lespondent 4 lespondent 4 lespondent 6 lespondent 6 lespondent 10 lespondent 11 lespondent 11 lespondent 12 lespondent 14 lespondent 15 lespondent 15 lespondent 17	0 Less than 2 miles 31 31 14 17 24 49 31 22 24 15 50 27 29 17 16	5 Within 2-5 miles sur 23 16 0 17 8 17 17 18 6 7 7 18 10 3 19 12 2 3 16	15 Within 5-10 miles 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	Very large assortment 2 3 0 47 59 22 0 8 8 0 43 50 21 4 4 9 9 0 0 51	3 7 6 22 39 12 5 9 1 20 32 17 5 13 24	0 4 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	55 2 4 9 0 26 52 0 12 0 22 55 1 0 2	No F
Office supplies espondents' prefere- espondents / ttributes and Levels tespondent 1 tespondent 2 tespondent 3 tespondent 4 tespondent 5 tespondent 5 tespondent 6 tespondent 6 tespondent 10 tespondent 10 tespondent 11 tespondent 11 tespondent 12 tespondent 13 tespondent 15 tespondent 16 tespondent 17 tespondent 18	0 Less than 2 miles 31 31 14 17 24 49 31 22 24 18 50 27 29 17 7 29 16 23	5 Within 2-5 miles 23 16 0 17 8 17 15 6 7 15 6 7 18 10 3 10 3 12 3 16 0 0	15 Within 5-10 miles 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	Very large assortment 2 3 0 47 59 222 0 8 0 43 50 21 4 4 9 9 0 0 51 48	3 7 6 22 39 12 5 9 1 20 32 17 5 13 1 24 31	0 0 4 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	55 2 4 9 0 26 52 0 0 12 0 22 55 1 1 0 0 22 0 0 22 55 0 0 0 20 0 0 20 0 0 0	No F
Office supplies tespondents' prefere- tespondents / ttributes and Levels tespondent 2 tespondent 3 tespondent 3 tespondent 4 tespondent 4 tespondent 6 tespondent 6 tespondent 10 tespondent 11 tespondent 11 tespondent 11 tespondent 12 tespondent 13 tespondent 14 tespondent 14 tespondent 15 tespondent 17 tespondent 17 tespondent 17 tespondent 17 tespondent 19 tespondent 17 tespondent 19 tespondent 19 tespondent 10 tespondent 11 tespondent 11 tespondent 11 tespondent 11 tespondent 12 tespondent 11 tespondent	0 Less than 2 miles 31 31 14 17 24 49 31 22 24 18 15 50 27 29 17 16 23 45	5 Within 2-5 miles 23 16 0 17 17 15 6 7 18 10 3 19 12 3 16 0 0 12	15 Within 5-10 miles 0 0 0 0 0 0 0 0 0 0 0 0 0	Very large assortment 3 0 47 59 22 0 8 8 0 43 50 21 4 4 9 9 0 51 4 8 33	3 7 6 22 39 12 5 9 1 20 32 17 5 13 1 24 31 22	0 0 4 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	55 2 4 9 0 26 52 0 0 12 0 22 55 1 0 22 55 1 0 22 0 18	No F
Office supplies Respondents' prefere- Respondents / ttributes and Levels Respondent 1 Respondent 2 Respondent 2 Respondent 4 Respondent 4 Respondent 6 Respondent 6 Respondent 10 Respondent 10 Respondent 11 Respondent 11 Respondent 12 Respondent 13 Respondent 13 Respondent 14 Respondent 14 Respondent 15 Respondent 16 Respondent 17 Respondent 17 Respondent 18 Respondent 19 Respondent 10 Respondent	0 Less than 2 miles 31 31 14 49 31 22 24 18 15 50 27 29 17 16 23 45 35 35 29 29 20 20 29 20 29 20 29 20 29 20 29 20 20 29 20 29 20 20 20 20 20 20 20 20 20 20	5 Within 2-5 miles 23 16 0 17 8 17 15 6 7 18 10 10 3 19 19 12 3 16 0 0 12 13 15 15 15 12 3 16 0 12 13	15 Within 5-10 miles 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	Very large assortment 3 0 47 59 22 0 8 8 0 0 8 8 0 0 4 3 50 21 4 4 9 9 0 51 4 4 9 9 0 51 4 4 33 22 22 29	3 7 6 22 39 12 5 9 1 20 32 17 5 13 24 31 22 25	0 0 4 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	55 2 4 9 0 26 52 0 0 12 0 0 22 55 1 0 2 2 2 55 1 0 2 2 0 0 18 17	
Office supplies tespondents' prefere- tespondents / ttributes and Levels tespondent 3 tespondent 3 tespondent 4 tespondent 4 tespondent 6 tespondent 6 tespondent 7 tespondent 10 tespondent 11 tespondent 11 tespondent 12 tespondent 12 tespondent 14 tespondent 15 tespondent 12 tespondent 14 tespondent 15 tespondent 16 tespondent 16 tespondent 17 tespondent 17 tespondent 18 tespondent 19 tespondent 19 tespondent 10 tespondent	0 Less than 2 miles 31 31 14 17 24 49 31 22 24 18 50 27 29 17 16 23 45 35 29	5 Within 2-5 miles 23 16 0 17 8 17 15 6 7 18 10 10 3 19 19 12 3 16 0 0 12 13 15 15 15 12 3 16 0 12 13	15 Within 5-10 miles 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	Very large assortment 3 0 47 59 22 0 8 8 0 0 8 8 0 0 4 3 50 21 4 4 9 9 0 51 4 4 9 9 0 51 4 4 33 22 22 29	3 7 6 22 39 12 5 9 1 20 32 17 5 13 24 31 22 25	0 0 4 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	55 2 4 9 0 26 52 0 0 12 0 0 22 55 1 0 2 2 2 55 1 0 2 2 0 0 18 17	No F
Office supplies Respondents' prefere- Respondents / ttributes and Levels Respondent 1 Respondent 2 Respondent 2 Respondent 4 Respondent 4 Respondent 6 Respondent 6 Respondent 10 Respondent 10 Respondent 11 Respondent 11 Respondent 12 Respondent 13 Respondent 13 Respondent 14 Respondent 14 Respondent 15 Respondent 16 Respondent 17 Respondent 17 Respondent 18 Respondent 19 Respondent 10 Respondent	0 Less than 2 miles 31 31 14 17 24 49 31 22 24 18 15 50 27 29 17 16 23 45 35 29 29 20 20 27 29 17 16 23 45 29 29 20 29 20 20 20 20 20 20 20 20 20 20	5 Within 2-5 miles 23 16 0 17 8 17 15 6 7 15 6 7 18 10 3 10 3 12 3 16 0 0 12 12 3 15 15 0 0 12 2 3 0 0 12 12 3 15 0 0 0 0 0 0 12 10 0 0 0 0 0 0 0 0 0 0 0	15 Within 5-10 miles 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	Very large assortment 3 0 47 59 22 0 8 8 0 0 8 8 0 0 4 3 50 21 4 4 9 9 0 51 4 4 9 9 0 51 4 4 33 22 22 29	3 7 6 22 39 12 5 9 1 20 32 17 5 13 24 31 22 25	0 0 4 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	55 2 4 9 0 26 52 0 0 12 0 0 22 55 1 0 2 2 2 55 1 0 2 2 0 0 18 17	No F.

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.
- Level Constraints specifying whether a level should be excluded from analysis.

- Incremental Revenue Potentials of all levels.
- Respondents' Weights.

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1	Eile Edit ⊻iew Insert E28 - & 0	: Format <u>T</u> ools <u>D</u> ata	<u>W</u> indow <u>H</u> elp ME∎	- XL			Ту	pe a question for help	•_8×
	4 B	C	D	E	F	G	н	1	^
1									<u>^</u>
2	Conjoint Study								
3	Attributes and attribut	te levels of the Conjoint	study.						
4	Attributes / Levels	Level 1	Level 2	Level 3					
5	Location	Less than 2 miles	Within 2-5 miles	Within 5-10 miles					
6	Office supplies	Very large assortment	Large assortment	Limited assortment					
7	Furniture	Office furniture	No furniture						
8	Computers	No computers	Software only	Software and computers					
10									
11	Revenue Poter	ntials							
12			ative) for each attribut	e level, compared to the	base product.				
13	The base product rev	enue is 100.							
14	The base level of eac	h attribute (the first love	Level 2	d by a zara					
15	Attributes / Levels	Zevel 1	Level 2	Level 3					
16	Location	o	10	30					
17	Office supplies	o	5	15					
18	Furniture	0	30						
19	Computers	0	-5	-25					
20									~
14 A	▶ N \Conjoint Analys	is Template /			۲	1	U		>
Ready								NUM	

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 \bullet XL \rightarrow CONJOINT \rightarrow RUN ANALYSIS. The dialog box that appears indicates the next steps required to perform a conjoint analysis of your data.

ME Conjoint Analysis	? 💌
Please select the options to run market share anal	ysis for your conjoint study.
Market Share Simulations	Choice Rule
C Existing Product Profiles Only	First-Choice Rule
OWith New Product Profiles (from set)	C Share of Preference Rule
With Optimal Product Profiles 5 ÷	C Alpha Rule (requires market shares)
 Optimized for market share 	C Logit Rule
C Optimize for revenue (req. revenue data)	Next Steep
Specify levels to include in search	Next Steps
Options	Next, you will be asked to select ranges for the Conjoint Study Design, Preference
✓ Incremental Revenue Data	Partworths, Existing Product Profiles, and Incremental Revenue Potentials
Unit Revenue for Base Product 100	
First column contains Respondents' Ids	
✓ Last column contains Respondents' Weights	
☐ Include Market Shares for Existing Product Profiles	
Save choices in current spreadsheet	Cancel Next >

Existing product profiles

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

- On existing product profiles only, which simulates performance of the existing set of competing products, assuming customers are familiar with all the products and the products are equally widely available for customer purchase.
- ...With new product profiles you have defined. In this case, the simulation introduces one new product at a time into the market along with all existing products in order to compute the market shares of all products, including the new product.
- ...With optimal product profiles, which tests all possible combinations of new products and keeps those that lead to the highest market shares (or highest revenues, if you have checked that option), after taking into account existing product profiles in the current market. This analysis helps you identify new opportunities, or "holes," in the market.

In this section you may optionally specify whether you prefer to optimize the analysis to maximize market share or revenue. Note: the "optimize by revenue" option requires incremental revenue data. This option will only be enabled if the "Incremental Revenue Data" check box in the Options area is checked. If this option is selected, you will be prompted for this data during the cell selection step.

You may further choose to specify which levels should be used for the optimization. Again, if selected, you will be prompted for which levels to include during the cell selection step.

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. For purposes of conducting simulations, you can alter the Base Product Revenue originally specified when creating the analysis template. However, if you check the Save choices in current spreadsheet menu option, then the revised values will be stored with the spreadsheet.

Choice rule

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

- **First choice 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 the preferred option.
- Share of preference rule: Each respondent's share of purchases of a
 particular product is a function of his or her preference for that product,
 compared with the total preference 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., beer, toothpaste, restaurant).
- **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 to 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 spreadsheets were generated using these options:

- Five optimal product profiles.
- Incremental 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:

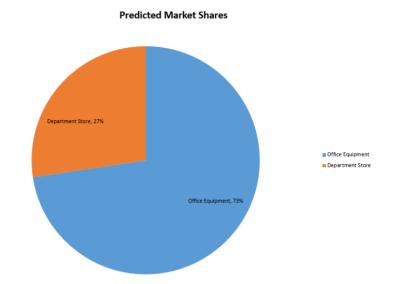
- With the **existing product profiles** only.
- By simulating the introduction of the generated **new product profiles**, one at a time (optional).
- By simulating the introduction of as many **optimal product profiles** as requested, one at a time, beginning with the one that leads to the highest market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

Attributes and attrib Attributes / Levels		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			
Market Share an	d Revenue Simu	dations				
<u>Market share and rev</u>	enue simulations fo	or different scenar				
Scenario / Product	Office	Department	Market Share of		Revenue	
profiles	Equipment	Store	Optimal Product		Weighted by	
Predicted market shares	73%	27%	nta	nta	nta	
with Optimal Product 1	39%	14%	47%	130	61	
with Optimal Product 2	41%	15%	43%	135	59	
with Optimal Product 3	47%	17%	36%	155	56	
with Optimal Product 4	46%	17%	37%	150	56	
with Optimal Product 5	45%	16%	39%	140	55	
Existing Product						
Labels and attribute Attributes / Existing	levels for each exis	ting product prof Department Store	file that already ex	cists in the market		
Existing Product Labels and attribute Attributes / Existing Product Profiles Location	levels for each exis	Department	file that already ex	rists in the market		
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Labels and attribute Attributes / Existing Product Profiles Location Office supplies	levels for each exis Office Equipment Within 2-5 miles Large assortment	Department Store Within 2-5 miles Limited assortment	file that already ex	cists in the market	-	
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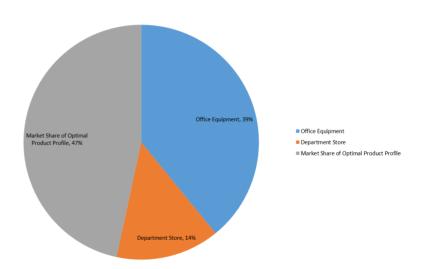
Computers Software and Software and computers Software only Computers Software only Computers

The above example repsents OfficeStar optimized for Revenue.

In the following chart, notwithstanding new product introductions, conjoint analysis predicts that *Office Equipment* captures 73% of the market (according to the logit rule).



The introduction of a new product (optimized for revenue) (see the description of "Optimal Product 1" in the first sheet) could capture 47% of the market, and *Office Equipment*'s market shares would drop from 73% to 39%.



...with Optimal Product 1

Optimizing for Revenue vs Market Share

The above example utilizes the Office Star data set optimized for Revenue. One might decide to optimize for Market Share (depending on the company objectives). The example below shows the same data set, but Optimized for Market Share.

The predicted market share for Optimal Product 1 coincidentally remains at 53%, but the Attributes for the Optimal Product have changed. Specifically, when optimizing for <u>Revenue</u> the Furniture attribute is No Furniture, but when optimized for <u>Market Share</u> the Furniture attribute is Office Furniture.

This illustrates the importance of the optimization decision.

	ute levels of the Co				
Attributes / Levels	Level 1	Level 2	Level 3		
ocation	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		
Market Share Simula	tions				
Warket share predicti	ions for different s	cenarios, using the	:Logit Rule. Maine Constantion (
Scenario / Product profiles	Office Equipment	Department Store	Optimal Product		
Predicted market shares	73%	27%	n/a		
with Optimal Product 1	34%	13%	53%		
with Optimal Product 2	36%	14%	50%		
with Optimal Product 3	39%	14%	47%		
with Optimal Product 4	40%	15%	45%		
with Optimal Product 5	41%	15%	432		
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labels and attribute Attributes / Existing	evels for each exist	ting product profi Department Store	e that already exi:	ts in the market.	
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Labels and attribute Attributes / Existing Product Profiles .ocation	evels for each exist Office Equipment	Department Store	e that already exi:	ts in the market.	
	evels for each exist Office Equipment Within 2-5 miles	Department Store Within 2-5 miles	e that already exis	ts in the market.	
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The above chart represents OfficeStar optimized for Market Share.