Creating a Tree for Segmentation

Tutorial

Time: 15 minutes of preparation; a few hours of cooking time
Skill level: Medium
Editions: Professional

Learning objective(s)

⇒ Creating a tree

⇒ Changing assumptions when building a tree

Illustrative problem

A qualitative study of the egg market has identified five segments. A study has been conducted to quantify the segmentation. The study included a **Pick One** question measuring segment membership and a conjoint question focused on understanding trade-offs between eggs. There is a need to validate the qualitative segmentation and, if necessary, improve it using *Latent Class Analysis*.

Activities

1. If you have not already done so, complete *Tutorial: Creating and Manipulating Trees*.
2. Open `Eggs.Q`, which will be in `c:\Program Files\Q\Examples` (unless Q has been installed in a different location on your computer).
3. Select **Segments...** from the **Create** menu.
4. Select **Split by these questions**.
5. Select **Egg buying philosophy**. This may take a few minutes.
6. Click **OK**. Any segments that are not distinct will be automatically merged. Just like in the earlier tutorial, we could have used lots of other split questions, but we are specifically interested in the Egg buying philosophy segments for the moment.
7. Once the tree has been built you can see the following segments have been merged because they weren't different enough alone: I just get the standard eggs + I get the first eggs that I see + I prefer vegetarian eggs.
8. If we examine the sample sizes at the bottom of the segment nodes, we see that I only buy free range eggs segment is the biggest segment.
9. Right-click on the I only buy free range eggs node and select **Grow**.
10. Click **Cancel** and then **Split by individuals**.
11. Click on **Advanced** and set the **Iterations** to 10. This is only for the purposes of this tutorial so you do not have to wait long – the number of **Iterations** is tied to the time taken by the algorithm.
12. Click **OK**.

13. Click **OK**.

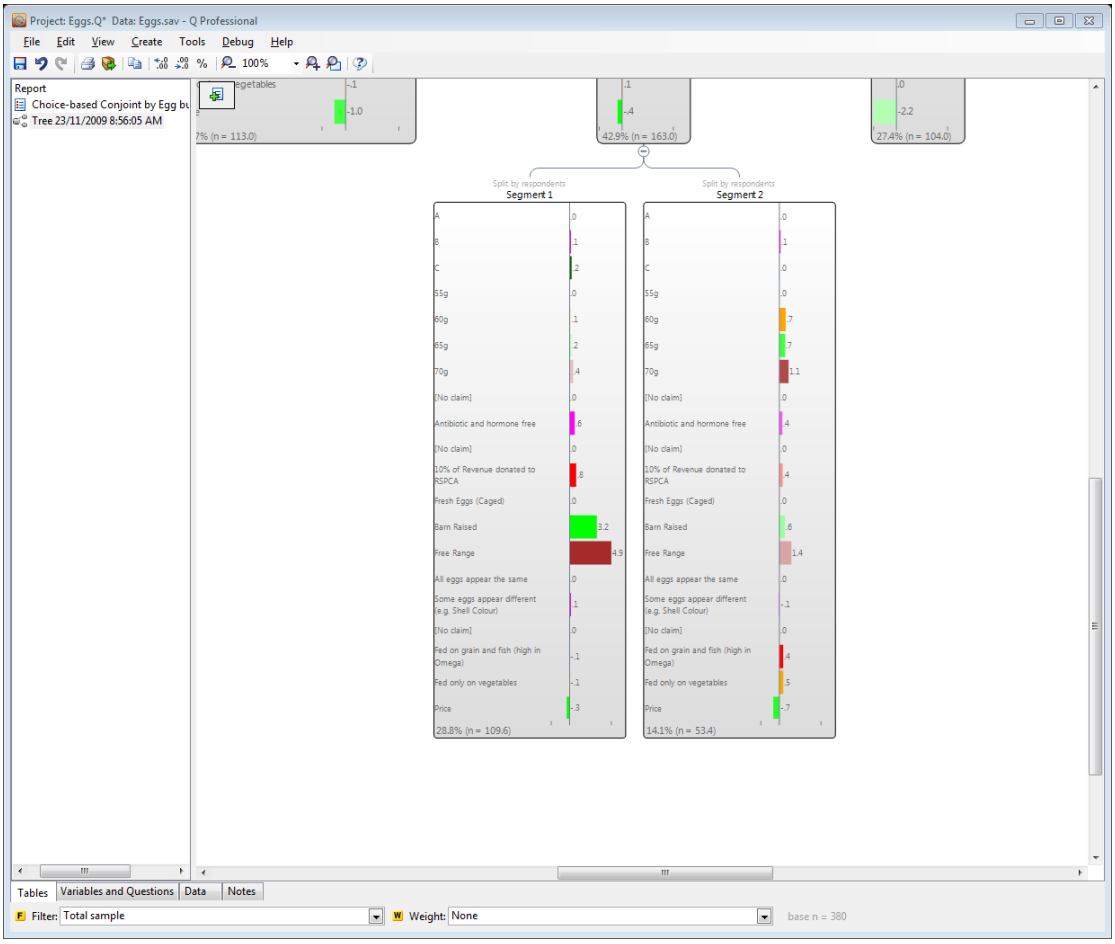

Figure 1. The Split by respondents segments of the I only buy free range eggs segment.

14. Two new segments are created. Right-click on Segment 2 and select **Format | Show Row Labels (This Level)**. Your screen should look like Figure 1.
15. Looking at the *coefficients* getting larger for the egg pack sizes (55g-70g), we can see that the I only buy free range eggs really splits into two segments: one that is primarily concerned with free range eggs (Segment 1) and another that while being concerned with free range is equally concerned with egg size (Segment 2).
16. Right-click on the Tree shown in the *Report* tree and select **Add Table**.
17. Type `Tree` into the blue drop-down menu and select your newly create tree. The four segments are now shown as a **Pick One** question, which can be crosstabulated with other questions and used in reporting.
18. Click on the **Variables and Questions** tab. Click the **comment marker** for the tree variable in the top row. This comment contains the analysis report that was run when you clicked **OK** in the **Segments** dialog.
19. Click **OK**.