

MaxDiff vs. Conjoint: Which is Better to Measure Consumer Preferences?



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The problem with traditional methods

When designing products, services, and ads, marketers commonly face questions about the features or elements that customers most prefer. For example, which brand positioning best resonates with customers and prospects? Which features should a product include, and which can be left out? Which tagline is most compelling to customers? Which elements of a service offering are most important to customers?

The tools traditionally used to analyze through these types of decisions have been helpful but limited. For example, surveys can ask consumers to rank features or attributes on a scale, where a low number means not very important or compelling, and a high number means very important and very compelling. The problem with this method is that consumers often say they want everything, so this method often fails to differentiate which features consumers must have from those they would like to have.

An alternative might ask respondent to rank order features or attributes from more important to less important. The problem with this method is that a respondent may be able to rank 5 or 6 items, but for a list of over 10 items it may be easy to select the items at the top or at the bottom, but difficult to discriminate among everything in between.

In recent years, researchers have developed a powerful methodology that can help solve this problem. The technique is called Maximum Difference Scaling, or “MaxDiff” for short. Despite the technical-sounding name, MaxDiff is a powerful method to rank highly diverse features and attributes from most preferred to least preferred, or most important to least important.

MaxDiff asks participants to conduct tradeoffs, identifying some features as best and others as worst. It provides a common scale to evaluate which features have the greatest appeal and best potential, generating output that is easy to use and very user-friendly. We’ll explain how in this article.

How MaxDiff Works

For the MaxDiff exercise, respondents are shown a number of different scenarios that typically include combinations of four features. Respondents then identify the alternatives that are most likely or least likely to cause them to buy a product or service.

Let's use cell phone service as an example to see how this works. National Wireless is developing a new online advertising campaign and wants to understand what features are most important to consumers shopping for cell phone service. National's marketing team has compiled a list of features and needs consumer insight to identify which features matter most.

In our fictitious example, the features might include:

- Unlimited data service
- Unlimited texts
- Offers a discount for paperless billing
- Offers a discount for automatic payment
- Has the widest 4G coverage
- Offers plans with no contracts
- Offers 1 year contracts
- Offers a free month of service for loyal customers
- Offers discounts for bundling multiple services

Example of a MaxDiff Task

- Below is an example of a MaxDiff task.
- Respondents chose “most likely” and “least likely” within each of the 9 tasks.

Of these four features, which one is most likely and which one is least likely to get you to purchase or renew?

Most Likely		Least Likely
☐	Automatic Payment Discount: The Automatic Payment Discount provides you with a 5% discount on your service if you select an automatic payment plan.	☐
☐	Unlimited Data Service: Unlimited Data Service means there is no limit on the amount of data used for watching videos, downloading songs, playing games, etc.	☐
☐	Multiple Services Discount: Multiple Services Discount provides a discount when you add other devices to your service. You may start with a Smartphone, and add a tablet, modem, or other device. The more devices you use, the greater your discount.	☐
☐	Loyalty Bonus: Loyalty Bonus provides one month of free service a year (not including tax) after you have had continuous service for five years.	☐

Click the “Next” button to continue...

Next 

0%  100%

In the MaxDiff survey, respondents see multiple screens with different combinations of four features from our list. Depending on the number of features or attributes, a respondent may evaluate 10 to 15 combinations of items, where each combination looks something like the picture below.

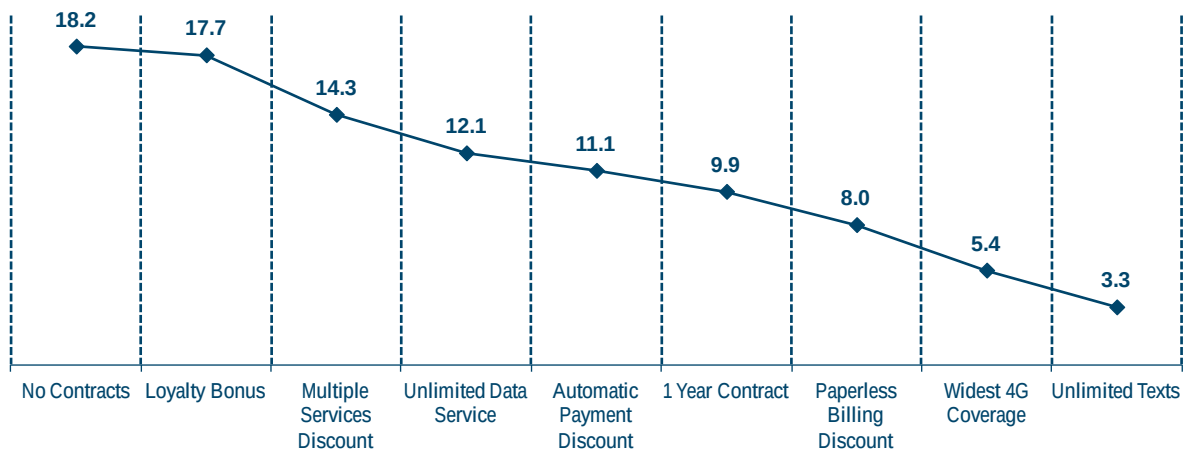
The analysis of these ratings produces a numeric score where the total for all features equals 100. Higher scores indicate a feature that is more important to consumers, while lower scores indicate a feature that is less important.

As shown below, one output from MaxDiff shows all the features, lined up from highest score to lowest score.

Features Ranked Highest in MaxDiff are No Contract and Loyalty Bonus

- Multiple Services Discount and Unlimited Data Service also rank strongly.

MaxDiff ranking



Everything is on the same scale, no matter how different the features, so a feature with a score of 10 is twice as important as a feature with a score of 5.

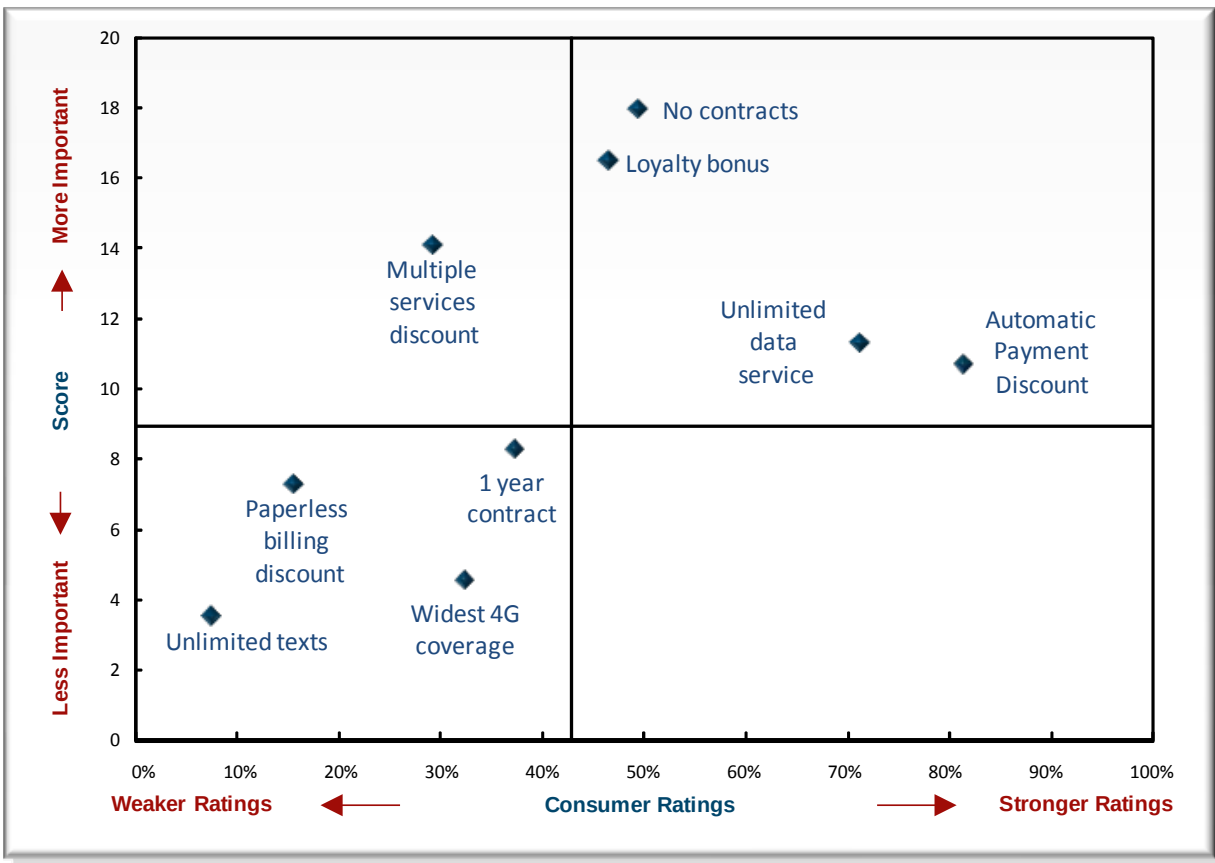
The features with the greatest appeal are “No Contract” and “Loyalty Bonus”, while “Unlimited Texts” is least appealing. Features that have a MaxDiff score of lower than five are generally considered weak performers. In our example below, unlimited texts, with a score of 3.3, is considered a weak performer.

With these results, an ad campaign or product development efforts should focus on No Contract or Loyalty Bonus, giving National a direction.

Other outputs available from MaxDiff

The prior example looked at results across the entire market. However, MaxDiff also can provide four additional types of analyses.

1. **Analyzing results for pre-existing segments:** For example, if National Wireless has an existing segmentation scheme, the results can be analyzed to see which features are preferred by each of the segments. For example, unlimited texts may be less appealing to a general sample, but may still be a very important feature to a household with teenagers.
2. **Creating feature-based segments:** The results for MaxDiff can also be analyzed to create segments composed of consumers who prefer specific features or groups of features. For example, the households who want unlimited texts may be different than those who want plans with no contracts. Using these results, we can create segments composed of consumers who prefer certain features.
3. **Understanding total reach:** Finally, we can also use MaxDiff to analyze which combinations of features appeal to the greatest percentage of the population. If we were selecting say two features for National Wireless, such a technique would indicate which two features would reach the greatest percentage of the marketplace.
4. **Comparing rankings and ratings:** If the survey also asks consumers to evaluate their existing service provider on different features, the MaxDiff output can provide a matrix comparing the importance of different features with their rankings by consumers. As shown in the figure below, marketplace opportunities may be identified by those features in the upper left quadrant, which are highly important to consumers, but not highly rated by existing service providers.



In summary, MaxDiff is easy to use and easy to interpret. It is a very powerful technique to know and use. For more information, contact MMR or see this article in the *Harvard Business Review*, entitled ["What Do Customers Really Want?"](#). For a more technical description of the technique, see Sawtooth Software's white paper ["The MaxDiff/Web v6.0 Technical Paper"](#).

About MMR Strategy Group

MMR Strategy Group (MMR Strategy) is a full-service market research-based consulting firm. We help our clients grow by leveraging customer insight to develop marketing and sales strategies. In order to support critical business decisions, we combine the data gathering capabilities of a research firm with the business analytics of a strategic consulting firm.

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