

# Quantitative Research Guide for Optimizing Your Pricing Strategy

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## Willingness To Pay Survey Template

Thanks for using the [Irrational Labs](#) Pricing Survey Template! Anytime you're surveying people, how you ask the questions impacts the answers you'll get back. This is especially true for quantitative pricing studies.

**What is this?** This template provides 3 proven methods with specific questions to help determine customers' Willingness To Pay for your product and 3 proven strategies for reducing hypothetical bias. All are based on robust academic research. Sometimes it's best to use one method and sometimes best to combine them.

**Go beyond quant:** To enhance this quantitative study, combine it with qualitative research and A/B testing. Use this [qualitative question guide](#) to help fuel your research. Pricing strategy is a powerful lever for your company's growth. Investing in high-quality research will pay off. Let's get started.

**Need help?** *Our experts can help you design your pricing research. Reach out to [hello@irrationalabs.com](mailto:hello@irrationalabs.com) or [contact us here](#).*

## This template has 5 steps

**Step 1:** Ask screener questions to get to the right participants.

**Step 2:** Introduce your product with a realistic description.

**Step 3:** Choose your Willingness to Pay method. There are 3 to choose from.

**Step 4:** Choose a method to eliminate hypothetical bias. This creates "incentive alignment" and ensures the participants are not overestimating their Willingness to Pay.

**Step 5:** Ask demographic questions.



## Step 1: Use screener questions to reach the right participants

Screeners / eligibility questions should be included early in your survey to help you reach a representative sample aligned with your product or service's target population. By screening out non-representative participants, you **enhance confidence in the generalizability of your findings** before moving to market.

Screeners typically assess participants': Socio-demographic characteristics, Past or current behaviors. Don't screen out participant characteristics that you're not entirely confident in. While you may believe your target audience includes only people who use TikTok, verify this assumption. Over-screening on minor criteria can skew the accuracy of your data.

Keep in mind: When sending the survey to your own customers/users, integrate these screening criteria into your participant targeting using administrative data when possible. For third-party platforms like Prolific, you can typically apply these filters directly during participant recruitment. However, we still suggest including these screener questions in your survey as an additional verification step.

**Imagine your product is for parents, and you want to confirm participants have children at home. Consider this screener question:**

Please select the description that best fits your household:

- ☐ Single
- ☐ Couple without children
- ☐ Couple with children
- ☐ Single parent with children
- ☐ Single living with roommates
- ☐ Other

**Imagine you are targeting people who have budget control at their company. You could ask this question:**

Have you bought business software using your company credit card or created a purchase order in the last year?

- ☐ No
- ☐ Yes
- ☐ Not sure

**Best-in-class: Incorporate attention checks to ensure response quality**

Attention checks are crucial for data quality. These questions are included in your study to make sure that participants are paying attention and engaging honestly (rather than clicking randomly).

Attention checks can be straightforward, involving explicit instructions with some intentionally incorrect answers. As a best practice, you can include 2 attention check questions within your study. If a participant fails both, exclude them from analysis.

Here is an example of an attention check question:

**We are interested in learning how much time you spend on social media.** The question below is a test, just to make sure you are reading these instructions. Please ignore the question and just write the word -sheep- (without hyphens) as your answer to the question. **Please choose from the options below:**

- ☐ Less than 1 hour a day
- ☐ 1-3 hours a day
- ☐ 4-6 hours a day
- ☐ Other \_\_\_\_\_



## Step 2: Introduce and Describe Your Product or Service

**Describe your product or service to your research participants.** Make sure the description is realistic, detailed, and fully comprehensible.

To enhance realism, consider incorporating website screenshots or a video demonstrating the product's use. Keep in mind that your description of the product will almost certainly influence customers' Willingness to Pay, so don't overlook this step!

**Best-in-class: Test different descriptions of your product or service.**

The perceived value of a product is often shaped by how it is described and presented. So why use just one description when testing WTP? We suggest tripling your sample and randomly assigning participants to view one of three product descriptions.

This approach helps you isolate not only *how much* people will pay, but also assess optimal value *positioning*.

Then, you can ask follow-up questions to **assess past experiences and first impressions** about your product or service. For example...

How would you describe your level of experience with using a kitchen blender, similar to the one described above?

- ☐ Very experienced
- ☐ Somewhat experienced
- ☐ Neutral
- ☐ Somewhat inexperienced
- ☐ Inexperienced

Based on the description above, how interested would you be in buying this kitchen blender if priced within your budget?

- ☐ Extremely interested
- ☐ Very interested
- ☐ Moderately interested
- ☐ A little interested
- ☐ Not at all interested



## Step 3: Choose your WTP Method

### Method 1: Van Westendorp

This is the simplest WTP method. We use 4 open-ended questions to directly ask participants about the lowest and highest price they're willing to pay for your product or service.

#### Pros of the VW method:

- Easy and fast to measure
- Easy for participants to understand
- Easy to analyze responses

#### Cons of the VW method:

- Participants are price-givers, which assumes that they know their own WTP (which is not always true)
- Doesn't consider decision context or alternative choices
- In the classic VW method, there is no skin in the game for participants
- Very susceptible to "Hypothetical Bias", which can lead to higher WTP valuations than actual valuation
- Doesn't include option to not buy



## Van Westendorp Measurement Task

***INSERT YOUR PRODUCT/SERVICE DESCRIPTION HERE***

1. At what price would you begin to think the item is **so inexpensive** that you would not buy it because it would be poor quality (in USD \$)?

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2. At what price would you think the item is **a bargain** - a great buy for the money (in USD \$)?

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3. At what price would you think the item is **getting expensive**, but you still might consider it (in USD \$)?

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4. At what price would you begin to think the item is too expensive to consider (in USD \$)?

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*Alternative framing for #3:* What is the maximum amount you'd be willing to spend on this item? (in USD \$)?

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## Method 2: Multiple Price List

This method involves presenting participants with a **list of prices for the identical product/service**. Participants indicate their willingness to purchase at each price with a simple "yes" or "no" response.

In contrast to the previous method where participants act as "price-givers", coming up with prices on their own, this method transforms them into "price-takers," mirroring consumer behavior in the real-world.

This method also introduces an element of "incentive-compatibility" to mitigate hypothetical bias. Participants are informed that one of their choices from the price list will be randomly selected and implemented (more on this in the next section).

### Pros of this method:

- Easy and fast to measure
- Easy for participants to understand



- Participants are incentivized to give accurate answers
- Participants are price-takers, which more closely resembles consumer choices in the wild Includes option to not buy

**Cons of this method:**

- Willingness to pay is evaluated based on an interval, rather than a single point estimate
- Doesn't consider decision context
- Price points in the list are not always easy to define and may have arbitrary limits


***TASK INSTRUCTIONS FOR PARTICIPANTS***

For this task, you will be presented with a table with multiple rows, each of them indicating a different price for the item.

For each of these amounts of money you will be required to indicate whether you would "Prefer buying item" or "Prefer not buying item".

After you submit all of your responses, one of the options you selected will be drawn at random and executed based on the option you selected.

Most specifically, if you selected the option stating "Prefer buying item", you will be asked to buy the item at that price. If you selected the option stating "Prefer not buying item", you will not be given the option to buy the item at that price.



**Multiple Price List Measurement Task**

**What is the highest amount of money (US Dollars) you would be willing to pay for this product?**

***INSERT YOUR PRODUCT/SERVICE DESCRIPTION HERE***

For each of the amounts of money in the following list indicate whether you would "Prefer buying" or "Prefer not buying".

	Prefer buying (1)	Prefer not buying (2)

\$10	<input type="checkbox"/>	<input type="checkbox"/>
\$15	<input type="checkbox"/>	<input type="checkbox"/>
\$20	<input type="checkbox"/>	<input type="checkbox"/>
\$25	<input type="checkbox"/>	<input type="checkbox"/>
\$30	<input type="checkbox"/>	<input type="checkbox"/>
\$35	<input type="checkbox"/>	<input type="checkbox"/>
\$40	<input type="checkbox"/>	<input type="checkbox"/>
\$45	<input type="checkbox"/>	<input type="checkbox"/>
\$50	<input type="checkbox"/>	<input type="checkbox"/>
\$55	<input type="checkbox"/>	<input type="checkbox"/>
\$60	<input type="checkbox"/>	<input type="checkbox"/>
\$65	<input type="checkbox"/>	<input type="checkbox"/>
\$70	<input type="checkbox"/>	<input type="checkbox"/>

## Method 3: Discrete Choice Based

This method is fundamentally different from the previous ones. Rather than asking people to make decisions about a single product, the Discrete Choice method involves giving people **multiple product options with slightly different features and prices and asking them which one they would buy.**

Participants are presented with multiple product alternatives (usually between 2 and 5, but can be scaled-up to more product options), and asked to pick the one that they would most want to purchase ("none" can be an option).

This method is unique in the sense that it **leverages relative comparisons between different products**, just like in a real-world setting. Basically, you replicate whatever you intend to launch and describe it just as you would in-market!

This method can be implemented with a single set of products, each with predefined characteristics, to assess the impact of price on relative choices. Alternatively, it can be expanded into a "conjoint-based choice" by having participants make multiple choices across various product sets, where characteristics, including prices, are randomly assigned.

### Pros of the choice-based method:

- Easy and fast to measure
- Very easy for participants to understand
- Participants are incentivized to give accurate answers
- Participants are price-takers, which more closely resembles consumer choices in the wild
- Includes option to not buy
- Participants make decision in a realistic scenario, where choice is relative to options available

### Cons of the choice-based method:

- Willingness to Pay is evaluated based on marginal price valuation
- It can get complicated quickly - study design and analysis



## Discrete Choice Measurement Task

### *PARTICIPANT INSTRUCTIONS*

Imagine you are in the process of selecting a new enterprise software with the following options:

- Project management software at \$8/month per user, automating quarterly headcount planning.
- Project management software at \$11/month per user, automating quarterly headcount planning, and providing What-if scenario planning.
- Project management software at \$12/month per user, offering real-time headcount planning and What-If scenario planning.

*[when possible SHOW the actual product via screenshots or a video, so the consumer understands what they are evaluating]*

At the end of the survey, 20% of participants will be selected to receive the chosen product at their indicated price. If you decide not to purchase, you'll receive the product's average cost in dollars instead.

Make sure to choose the product you actually want, would use and would actually spend money on!

Which option do you choose?

- ☐ A project management software that costs \$8/month per user and can automate quarterly headcount planning.
- ☐ A project management software that costs \$11/month per user and can automate quarterly headcount planning and provide What-if scenario planning
- ☐ A project management software that costs \$12/month per user and can provide real time headcount planning and What If scenario planning
- ☐ Would not purchase any option



## Step 4: Minimize Hypothetical Bias

"Hypothetical bias" occurs when research participants provide **upwardly biased willingness-to-pay estimates because they are responding in a hypothetical scenario.**

For instance, a study on donations by John List (University of Chicago professor and Walmart's first chief economist) demonstrated that while \$780 was pledged in a hypothetical scenario, only \$310 was donated in a real-world setting. This poses a significant issue when using WTP measurements to shape pricing decisions. Biased estimates can lead to ineffective pricing strategies.

### How do you avoid Hypothetical Bias?

Make sure that your measurement methods are "incentive-aligned" or "incentive-compatible." This means adding immediate real-world implications to participants' responses, even within the context of an online survey. By doing so, you enhance the likelihood of more accurate and precise reports of participants' true WTP, as depicted in the chart below.

While you might be tempted to skip this step in survey design, we strongly recommend including it. This will ensure that responses better mirror real-world decision-making. In the next section, we'll show you three strategies to make your survey incentive-compatible.

### **Best-in-class: Incorporate "incentive compatibility"**

To illustrate this point, we'll let the evidence do the talking. The closer the lines in the graph are together, the more accurate the pricing estimates:



## Strategy 1: Random Number Method (BDM Method)

The Becker-DeGroot-Marschak (BDM) method, which, though well-replicated in the literature, can be complicated to explain to participants. Use with caution.

In this approach, just before participants state their maximum WTP for a product or service, they are told that a random number will be drawn following their response to the WTP question.

If their stated max price is **HIGHER** than the drawn random price, they must purchase the item at the random number's price.

If their stated max price is **LOWER** than the random price drawn, they forfeit the chance to buy the item at that random price.

**For example:** A participant states \$45 as their maximum price for the item. If the random number generator outputs "\$25," they must purchase the item at \$25—\$20 less than their stated willingness. A steal! However, if the random number is "\$52," they purchase nothing. This strategy ensures that participants are inclined to report their true maximum WTP: They don't need to pay more than their stated maximum, but they're incentivized to avoid underreporting to seize the opportunity of a lower-than-stated price.

For example...

### ***TASK INSTRUCTIONS FOR YOUR PARTICIPANTS***

Welcome to the experiment! Our goal is to understand what you'd be willing to pay for the product we just described. There are no right or wrong answers.

For this task, imagine you're in a situation where you want to buy the product we just described to you.

First, we'll ask you to tell us the maximum amount you would be willing to pay for this item.

After you answer, a random number will be drawn [ranging from  $x$  to  $x$ ]. This number will represent the actual selling price for this product. We'll compare the random price with your response.

If your stated maximum price is **HIGHER** than the drawn price, you get the chance to purchase the item at the randomly drawn price. If your maximum price is **LOWER** than the drawn price, unfortunately, you won't have the chance to purchase the item.

Please note: It is in your best interest to provide your true maximum price. You'll never pay more than you state, and you might end up paying less. Failing to do so risks missing out on buying the product even if you would have liked to at the drawn price.

## COMPREHENSION CHECK

Before we begin the study, imagine the following situation:

John Doe is participating in a similar study with the same instructions. He is asked to indicate the maximum amount that he would be willing to pay for a popsicle.

He indicates that he would pay a maximum of \$1 for the popsicle.

What would happen if the price \$1.50 comes out in the random number draw?

- ☐ John will be given the chance to purchase the popsicle for \$1.00
- ☐ John cannot buy the popsicle [right answer]
- ☐ John will be given the chance to purchase the popsicle for \$1.5

What will happen if the price \$0.9 comes out in the random number draw?

- ☐ John will be given the chance to purchase the popsicle for \$1
- ☐ John will not be given the chance to buy the popsicle
- ☐ John will be given the chance to purchase the popsicle for \$0.9 [right answer]

## WTP MEASUREMENT TASK

Now, please imagine you want to buy the following item:

***INSERT YOUR PRODUCT/SERVICE DESCRIPTION HERE***

What is the maximum amount you'd be willing to buy this product for?

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### ***RANDOM PRICE DRAW***

**Up next, a random number will be generated. This number will represent the actual selling price for this product.**

If the maximum price you agreed to pay is **HIGHER** than the price from the random draw, you'll be given the chance to purchase the item paying the price from the random draw.

If the maximum price you agreed to pay is **LOWER** than the price from the random draw, you'll not be given the chance to purchase the item.

The randomly generated selling price for this item is: \$

You stated that the maximum you'd be willing to pay to buy this product is \$

Display This Question:

If  $\text{random\_price} > \{q://QID61/ChoiceTextEntryValue\}$

Given that the maximum you would be willing to pay is LOWER than the randomly generated price for this item, you will not be given the chance to purchase this item.

Display This Question:

If  $\text{random\_price} \leq \{q://QID61/ChoiceTextEntryValue\}$

Given that the maximum you'd be willing to pay is HIGHER than the randomly generated price for this item, you'll be given the chance to buy this item at the randomly generated price.

Would you be willing to buy this item?

☐ Yes

☐ No



## Strategy 2: Lottery

**Multiple Price List Method:** If using this WTP method, let participants know that one of their "Buy/Don't buy" choices will be executed randomly from the full list. You'll give them a straightforward explanation.

**Example:** "After your response, we will randomly select one of the prices. If you chose 'Buy' at \$15, you will be charged for the product. If you didn't choose 'Buy' at \$15, no charge, but you won't receive the product."

**Choice-Based Method:** If using this WTP method, participants are randomly chosen to either purchase the chosen product or receive it for free. You'll explain this in one of two ways:

**Example 1:** "One participant will be selected at random to have the option to buy the product they chose. Make sure you pick the product you genuinely would buy. If you win



but decide not to purchase, you'll receive an equivalent amount in cash."

**Example 2:** "One participant will be selected at random to receive the chosen product for free upon launch. Make sure to pick the product you would genuinely buy. If you win but choose not to purchase, you'll receive an equivalent amount in cash."



### Strategy 3: "Cheap Talk"

Another strategy to reduce hypothetical bias involves asking participants to simply provide truthful responses while being mindful of this bias. This is a low-touch strategy, but weaker than the others.

**Example:** "When responding to the next questions, it's important to imagine you're making choices in the real world, using your actual money. Think carefully about what you would genuinely buy. The results from this research will impact the future pricing of this product."

This method can be used independently or in conjunction with the "incentive alignment" strategies discussed earlier. It serves as a practical alternative, especially when the actual product doesn't yet exist or budget constraints limit offering bigger incentives. Additionally, it can be a good second-best option in scenarios involving legal complexities related to incentives determined at random.



## Step 5: Demographic Questions

This step is fairly straightforward, yet essential in complementing the insights gained from your WTP task. Incorporating socio-demographic questions provides a set of observable characteristics to understand your participants. When properly powered, you can control for these variables during data analysis and conduct targeted subgroup analyses for specific participant characteristics. Asking demographics also offers insights into how representative your sample is of the target population—a critical aspect in building confidence about the generalizability of your findings.

Some common socio-demographic questions include:

- Age
- Gender
- Country/State of Residence
- Household income    Marital Status
- Education level
- Children

Other examples of more sophisticated and potentially relevant variables include:

Political affiliation

- Pro-environmental attitude    Risk aversion
- Personality traits



## BONUS: Feature Ranking

**If you've made it this far, you get a bonus!**

Assessing preferences can be challenging when posed as an absolute question like "Do you like this?" People find it easier to respond when an element of relativity is introduced, allowing for comparison between options, as in "Do you like this, or this?"

To streamline your team's prioritization of new features, **use a ranking approach, focusing only on the TOP and BOTTOM preferences.** Participants don't need to rank all

features (that's too cognitively demanding); they only need to specify their most and least preferred.

Make sure to include an option for "I would not purchase" and clarify that these features come with additional costs.

Here is a list of features that could be included in the service we just described. Please choose **two features you would most consider paying additional money for**:

- ☐ Feature 1
- ☐ Feature 2
- ☐ Feature 3
- ☐ Feature 3
- ☐ Feature 4
- ☐ Feature 5
- ☐ I would not consider any of them

Here is a list of features that could be included in the service we just described. Please choose **two features you would least consider paying additional money for**:

- ☐ Feature 1
- ☐ Feature 2
- ☐ Feature 3
- ☐ Feature 3
- ☐ Feature 4
- ☐ Feature 5
- ☐ I would consider them all

Congrats! Because you're looking at this template, you know that it's important to re-think your pricing strategy regularly. Pricing is one of the most important levers you can pull for growth.

If you need help or want to talk pricing, just let us know. Hit us up. Email [hello@irrationalabs.com](mailto:hello@irrationalabs.com) or [go here](#).