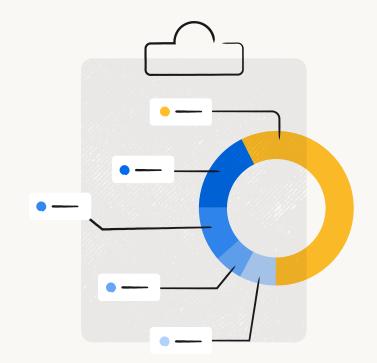**TREMENDOUS**

The Decision Lab and Tremendous:

2023 Experimental Cashback Research

Tremendous is committed to rigorous and transparent research. Read on for a breakdown of the methodology, analysis, and limitations of our experimental research into cashback promotions with The Decision Lab.

In 2023, Tremendous teamed up with The Decision Lab (TDL), an applied research and innovation firm, to run an experiment on cashback promotions, or digital rebates. This is the first research on cashback promotions and rebates in 20 years.

About the research

Cashback promotions and digital rebates are a kind of marketing promotion that gives a part of the purchase price back to customers via store credit, gift card, cash transfer, or other forms of payment. In this report, we'll be using the terms 'digital rebate' and 'cashback offer' interchangeably.

As part of our research with TDL, we analyzed more than 430 product-related promotional offers to understand current practices around cashback offers, and ran 500 consumers through a discrete choice experiment to identify the optimal design for cashback promotions.

Why should I trust these results?

Our findings are grounded in data and behavioral science. In partnership with The Decision Lab, we designed and conducted a discrete choice experiment that involved prompting participants to choose between a set of realistic, randomly generated options.

For example, we asked participants to select between a series of promotional offers where the cashback attributes varied randomly (see examples under Methodology). By analyzing which promotional offers each participant preferred, we determined what makes an optimized cashback strategy.

What is a discrete choice experiment?

A discrete choice experiment is a quantitative method used to elicit preferences from participants without directly asking them about what they like and don't like. In a discrete choice experiment, participants are presented with a series of alternative hypothetical scenarios, each containing a number of variables (or attributes). Participants are asked to select their preferred choice between a number of competing scenarios, which all consist of a combination of different attributes. You can find examples of the discrete choice experiments we ran on pages 2-5.

The discrete choice experiment method was developed by Louviere and Hensher in 1982. They're part of the choice modeling (or conjoint analysis) approach, which includes contingent ranking, contingent rating, and paired comparisons.

Methodology

The aims of this research, conducted in May 2023, included:

- Understanding customers' relative preference for different cashback/rebate types and ways in which cashback offers are presented.

- Testing whether cashback preferences differ for certain groups of customers.

- Updating the estimated redemption rate for digital cashback offers.

Experimental design

We used a two-stage Discrete Choice Experiment (DCE). DCEs include a set of realistic, randomly generated options that participants choose between. For example, participants may be asked to select between a series of realistic promotional offers where the cashback attributes vary randomly. By analyzing a large number of these choices, we gain insight into preference.

Following the DCE, some participants were given the offer to redeem a conditional incentive. This was used to estimate redemption rate at a variety of cashback values.

We used a large online research platform to test 500 people living in the US, divided equally between male and female participants. Each individual made 13 decisions, giving us a total of 6,500 data points.
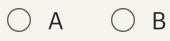
Discrete Choice Experiment: Stage 1

We tested customer preferences for different types of cashback offers and whether this changes with the size of the cashback offer or the type of product. We also tested whether framing the redemption process as 'easy' impacts the value of the offer.
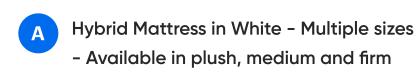
Offer type:	Offer value:	This structure was applied to two different price points:
- Cash transfer - Digital Amazon gift card - Visa prepaid card - Digital gift card of choice - Mailed check - Store credit	Dollar value ranging from 10%-40% of the product price **Product type:** - Hedonic - Utilitarian **Redemption Process:** - Framed as "Easy to claim" - No framing	- High-value products with a retail price of $1,000 - Low-value products with a retail price of $100

Example of a stage 1 choice:

You see advertisements for the two products listed below.
Which promotion do you think is a better deal?

○ A   ○ B

A Hybrid Mattress in White - Multiple sizes - Available in plush, medium and firm

$1,000

Buy now and receive a **$387 cash rebate** via Paypal. Venmo or bank transfer after purchase.

Easy to claim!

B Front Load Washer, ENERGY STAR Certified, 5.2 cu ft. Capacity

$1,000

Buy now and receive a **$222 store credit**.
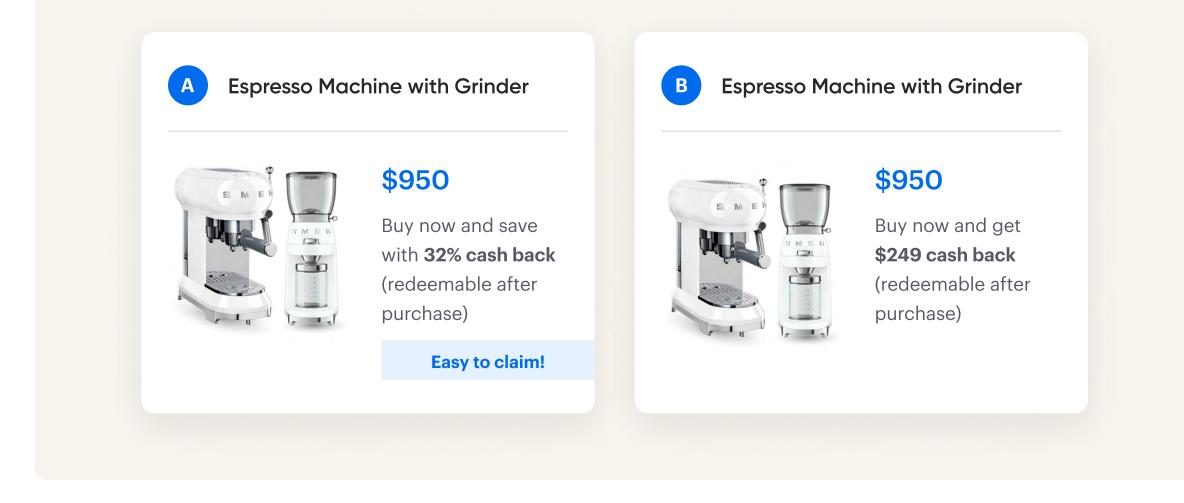
Discrete Choice Experiment: Stage 2

Our second stage focused on framing. Promotional offers varied on the basis of whether the incentive was described as a cashback offer or a discount, whether the redemption process was described as easy, the language used to frame the claim, and whether a dollar value or percentage of product price was used to communicate the amount. Here each participant made 3 choices.

Incentive value:	Redemption process:	Dollar or percent framing
Dollar value ranging from 10% to 40% of the product price	• Framed as "Easy to claim" • No framing	• Dollar amount • Percentage of sales price
Cashback vs. discount:	**Promotional wording:**	
• Discount "at checkout" • Cashback offer "redeemable after purchase"	• "Get back" • "Receive" • "Save" • "Earn"	

Example of a stage 2 choice:

You see advertisements for the two products listed below.
Which promotion do you think is a better deal?

○ A   ○ B

A Espresso Machine with Grinder

$950

Buy now and save with **32% cash back** (redeemable after purchase)

Easy to claim!

B Espresso Machine with Grinder

$950

Buy now and get **$249 cash back** (redeemable after purchase)

In both stages, we gathered demographic data (age, income, employment status) to test preferences between groups, and used attention checks to make sure participants weren't randomly clicking to get through the study quickly.

Redemption rate

To bring research on redemption rates into the 21st century, we offered 275 lucky participants the chance to redeem a conditional incentive. Once both DCE stages were complete, we offered the first 275 participants an additional payment, ranging from $0.50 to $200 USD, separate from the payment offered for completing the study. To receive the payment, administered by Tremendous, participants had to provide their email address. Some participants were asked to complete a short arithmetic task before entering their email to add additional friction.

Distribution of additional payments offered	
Cashback value	**Number of cashback promotions offered**
$0.50	
$2.00	
$3.50	40
$5.00	
$10	
$20	30
$50	
$100	20
$200	5

Step 3:

Payment value:	Ease of redemption process	Promotional wording:
$0.50 to $200.00		• "Get back"
	• "To redeem your reward, please complete the short arithmetic task and enter your email address on the next page."	• "Receive"
Redemption framing:		**Dollar or percent framing**
• "The process to redeem your reward is quick and simple"	• "To redeem your reward, please enter your email address on the next page."	• Dollar amount
• No additional framing		• Percentage of sales price

Analysis

Discrete Choice Experiments

Consistent with [Hainmueller, 2014](#), we used a linear regression model[1] to estimate the utilities/value associated with the levels of each attribute in each DCE. Only interactions that were significant at the 95% confidence level were reported. For each stage, we used separate models to test:

- the main effect of each attribute

- interactions between attributes

- interactions between attributes and demographic factors

We estimated separate models for high- and low-priced products, allowing us to identify how preferences change depending on the price scale.

Each model included an estimate associated with changes in the size of the cashback offer. This estimate can be interpreted as the perceived value of an additional dollar added to the offer. We used this estimated value of an additional dollar to convert the differences in perceived value between attribute levels into dollar values.

Redemption rates

We used data on emails collected and confidential operational data from Tremendous to estimate the overall redemption rate, as well as redemption drop-off at each stage of the redemption process. Logistic regression was used to model the redemption rate based on the offer size and other covariates.

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[1] Clustering standard errors at the individual level did not have a significant impact on the estimates or standard errors, so was not applied to the results.

Limitations of redemption rate experiment:

- Representativeness: Our sample was participating in research in exchange for payment and may not be representative of people being offered cashback in a marketing context.

- Context: To replicate the cashback process as closely as possible, we offered research participants the opportunity to redeem an additional payment through Tremendous. Our sample was recruited through an online platform that pays research participants directly. Therefore, an offer of payment through a third party was probably unusual for participants and may have raised suspicions:

  - Some respondents did not want to give their personal email, but gave their research panel email instead

  - One participant contacted us directly to check whether the email they had received was a scam

- A traditional cashback promotion offered through a retailer may be more familiar and less suspicious to customers.

About Tremendous

Trusted by over 10,000 companies big and small, Tremendous makes it easy to send cashback rewards at scale. For free.

www.tremendous.com

Email: sales@tremendous.com

LinkedIn: /tremendous-rewards