



THE PRICE OF CONVENIENCE

A STUDY ON SHIPPING COSTS AND CONSUMER PREFERENCE

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MOTIVATION

- **Main topic:** Wanted to understand a consumer's response to different pricing and shipping models
- **Objective:** To determine consumer preference between lower-priced products with paid shipping versus high-priced products with free shipping
- **Why this is important:** Understanding these preferences aids in optimizing pricing strategies to increase sales and customer satisfaction

How does incorporating “free shipping into a product price on e-commerce platforms, versus a separate base price with a shipping fee impact revenue maximization?

This way we can find out how much companies can overcharge product prices to justify for free shipping, compared to charging the base price and having the customer pay for shipping costs.

Will an ad that shows a higher price with free shipping receive a higher purchasing rate than an ad for the same product with a lower price and paid shipping?

THINKBIG!

WHY THE RESEARCH QUESTION IS OF INTEREST?

THE EXPERIMENTAL RESEARCH QUESTION FOR OUR PILOT STUDY

DESIGN AND TREATMENT

the project was run
during class

ENVIRONMENT

students ages:
21-30
10-20

PARTICIPANTS

the participants
filled out a survey

EXPERIMENT

the change in
willingness to pay
with free shipping

TREATMENT

Qualtrics automatically
randomized 2 different
surveys to the two
treatment groups

RANDOMIZATION

Treatment & Control

Control	Treatment
<p>Students that were presented with an ad for a product with a lower price (compared to the treatment) and paid shipping</p>	<p>Students that were presented with an ad for a product that has a higher price and free shipping</p>
<p>Control group had 28 Participants out of which 16 were Male and 12 were Female</p>	<p>Treatment group had 25 Participants out of which 12 were Female and 13 were Male</p>
<p>The average Price paid by participants in the control group was \$4.07</p>	<p>The average price paid by the participants in the treatment group was \$4.24</p>

RESULTS

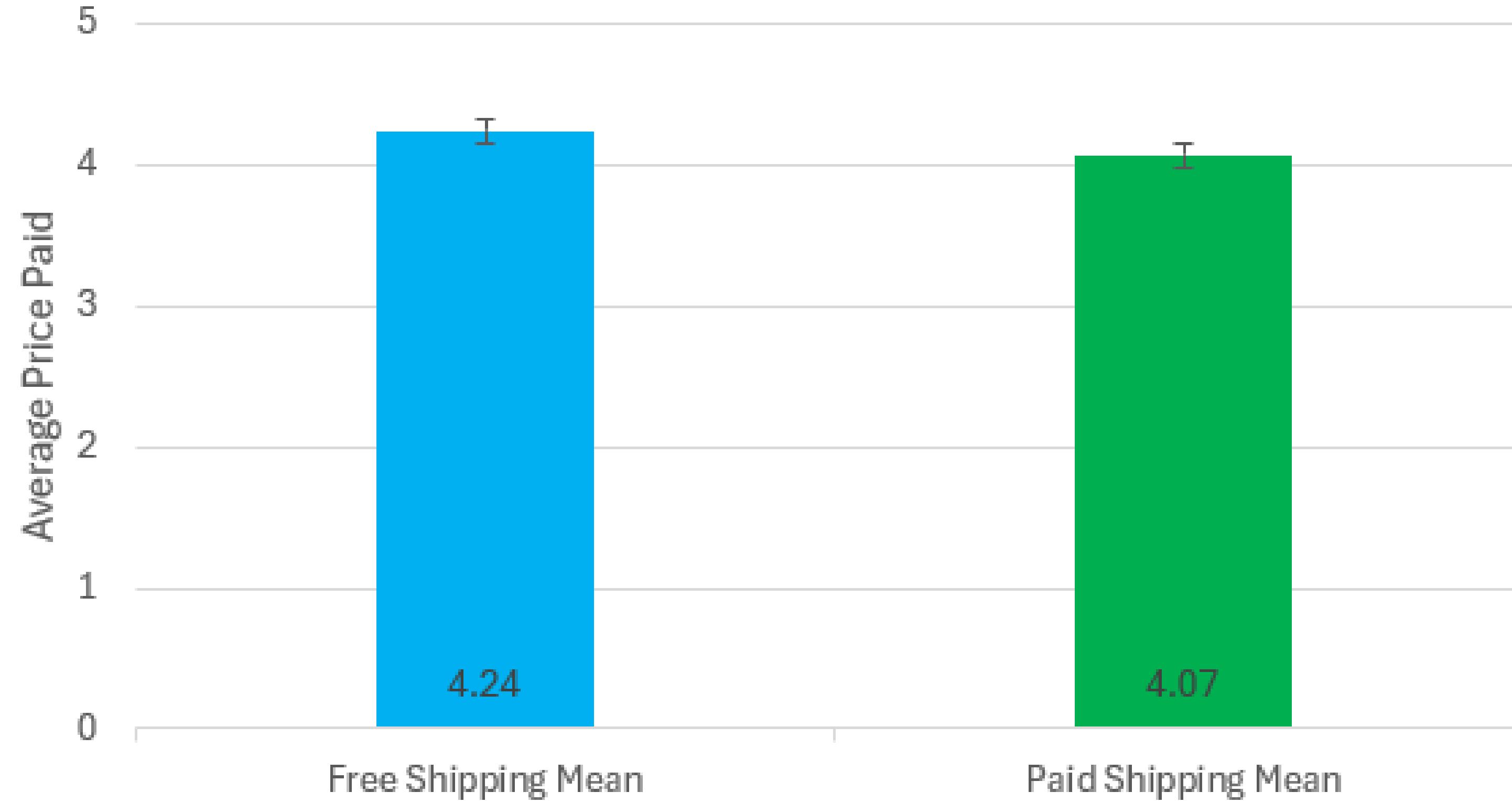
Hypothesis

Students presented with an ad for a product with a higher price and free shipping will have a higher willingness to pay than students presented with an ad for a product with a lower price and paid shipping

- The average willingness to pay amount for the students who received paid shipping was \$4.07. This is the control group.
- The average willingness to pay amount for the students who received free shipping was \$4.24. This is the treatment group.
- Thus the average treatment effect is an increase in the willingness to pay amount of \$0.17.

Summary of Main Results

Results



Dependent variable:

Female Mean with Free Shipping	Female Mean with Paid Shipping	Male Mean with Free Shipping	Male Mean with Paid Shipping
3.666667	1.833333	4.769231	5.75

	Control (1)	Treatment (2)
Gender	3.608 *** (1.272)	1.493 (1.821)
Age	1.647 (1.799)	1.032 (2.026)
Constant	0.598 (1.637)	2.720 (2.206)
Observations	28	25

Note:

* p<0.1; ** p<0.05; *** p<0.01

The z-score is -0.06236. The p-value is .47608. The result is *not* significant at p<.05.

CONCLUSION

WHAT ARE THE LESSONS WE CAN LEARN FROM YOUR PILOT?

- *Despite the total price being paid by the two groups being the same \$10, the perception of paying for the product with free shipping increases a consumer's willingness to pay*
- *Large difference in willingness to pay between males and females in paid shipping (males were more willing to pay for paid shipping than females)*

WHAT ARE SOME LIMITATIONS?

- *Small sample size, a larger sample size would increase our power*
- *Sample is only made up college students around the same age groups*