



# Anchoring Bias and Price Strategy

Author: Xiaoyan Ma  
 Advisor Dr. Philip Z. Maymin  
 Ernest C. Trefz School of Business  
 University of Bridgeport, Bridgeport, CT

## Introduction

Anchoring Bias is used in psychology to represent the widespread human tendency to rely on the first piece of information or a familiar reference a person has heard, no matter how reliable this information is when a decision or choice is made. The first or specific value information is always tremendous effort the results people made. A product is truly never expensive or cheap; it depends on comparison. Most of the time having an anchor price will help a person make a decision or choice. This report will explain the bias built into the strategy of product pricing.

This study describes the results of a survey conducted on how people will buy a car if a dealership provides different prices at different times. The survey data will show how people make decision or choice when they have prior price information. The questionnaires were distributed to a total of twenty-six students in the Spring 2018 FIN534 Behavioral Economics and Algorithmic Finance course with Professor Philip Z. Maymin at the University of Bridgeport, Ernest C. Trefz School of Business.

## Questionnaires

A car is a necessary means of transportation in this country. Let's assume you are currently looking for a job. Having a car can enable you to drive to different places to expand your network. So, you come to a car dealership:

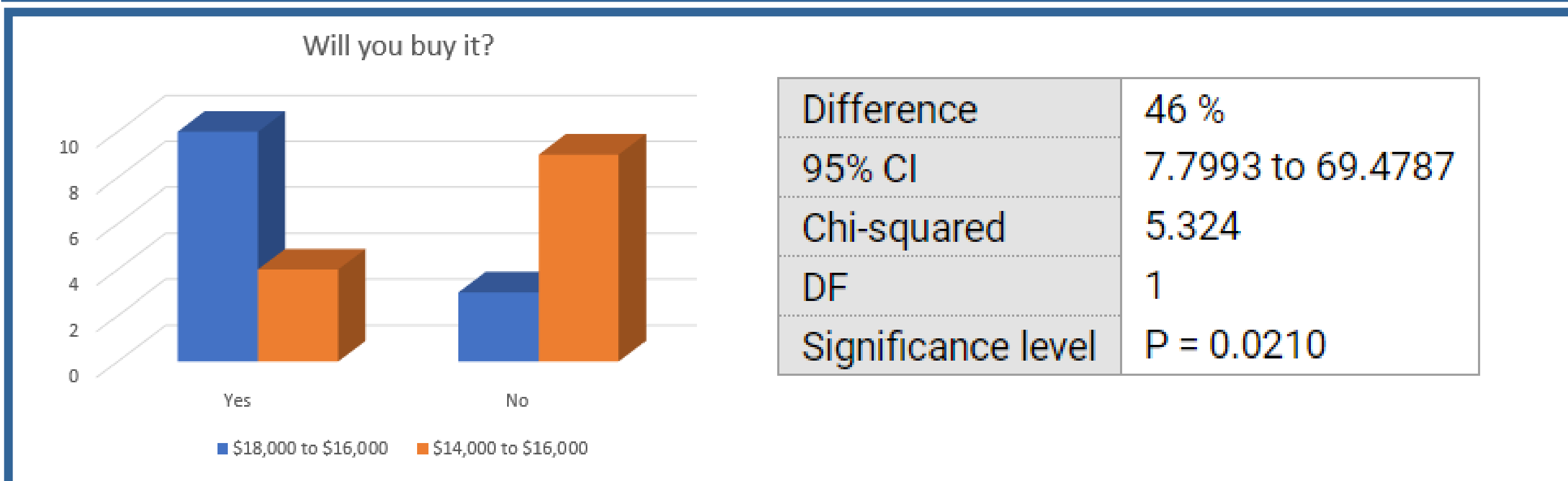
**A.**

**I will sell you a car you are very interested in for \$18,000. However, if you come back a week later, I say I will sell it to you for \$16,000. Will you buy it?**

**B.**

**I will sell you a car you are very interested in for \$14,000. However, if you come back a week later, I say I will sell it to you for \$16,000. Will you buy it?**

Question	Price change	Will you buy car?		Total
		Yes	No	
A	\$18,000 to \$16,000	10	3	13
B	\$14,000 to \$16,000	4	9	13
Total		14	12	26



For question A: When the car price was decreased from \$18,000 to \$16,000, people probably thought this was a new cheap price and a great deal. There were 13 participants in this survey and 10 (about 77%) said they would buy the car.

For questions B: When the car price was increased from \$14,000 to \$16,000, people felt disappointed and didn't think it was a good deal. They probably left or tried to negotiate further. There were also 13 participants in this survey, but only 4 people (about 31%) said they would buy the car.

The proportions ratio test for  $10/13 = 0.77$  vs.  $4/13 = 0.31$  had a p-value of 0.0210, indicating that the difference is likely not due to the randomness. In other words, there is a statistically significant difference.

## Conclusion

Humans are naturally indecisive creatures and tend to rely heavily on the first information they receive when making decisions. People often use the most conveniently available price to drive their decision when they think what to buy and how much to pay for something. In the above survey study, the final price of the car is \$16,000 which is the same for the two questionnaires. But the results were completely different for Questionnaires A and B. "Any time you have to estimate a numerical value, it turns out you're very susceptible to the power of suggestion," says William Poundstone, author of the book *Priceless: The Myth of Fair Value*. "Any related value that you hear just before you make your estimate really does have this big statistical impact on what number you're going to estimate." This survey study describes how powerful the anchoring bias that affects people's judgment can be. Therefore, creating a price strategy based on anchoring can help make better business decisions.

## Reference

- [1] Pricing Psychology: 10 Timeless Strategies to Increase Sales by GREGORY CIOTTI <https://www.helpscout.net/blog/pricing-strategies/>
- [2] Priceless: The Myth of Fair Value (and How to Take Advantage of It) by William Poundstone.