

# **Factors that affect customers' decisions the most in the physical store: A field experiment online**

## **Abstract**

Countless studies show that many factors in a physical store affect customers' choice, but there doesn't really exist an experiment that tests which factor affects customers' decisions the most. Therefore, an online experiment was carried up in an online survey, which can test the participant in a close experiment setting. The result shows display plays an equally effective role in consumer choices in comparison to the discount, but feedback doesn't play a majority of role. Additional study will test when it comes to online shopping, which factor will affect the customers in comparison to shopping in a physical store.

## **Introduction**

There are plenty of factors in this world that affect our behaviors, both unintentionally and intentionally. Consumers are certainly affected by these factors on a daily basis. That is why commerce plays around those factors in order to target their audiences. What exactly drives customers to make choices and what are the psychological factors behind them? Countless research shows that customers are affected by a variety of factors.

For instance, Iberahim, Zulkurnain, Raja 'Ainal Shah, and Rosli (2019) considers retail's need to evaluate the customer's emotions, psychology, and behavior. In their experiment, surveys were distributed to customers at the payment counter, as they completed their purchases. After four rounds of observations were done on how the layout of the store was arranged and managed, the question on the survey was divided into seven sections, each one asked whether they were affected by various factors. They found that environmental factors such as an open back window display, numerous mannequin heads with different facial expressions, and promotional signage influenced impulse purchase decisions made by customers. However, floor merchandising and lighting were found to be insignificant in influencing impulse buying behavior. They concluded that to a certain degree, in a chaotic shopping environment, floor merchandising and lighting are less likely to affect impulse buying behavior.

Guéguen, Jacob, Lourel, Guéguen and Laurel (2007) suggest that outdoor commercial contexts have received no research attention, so their focus was on whether background music in open-air conditions affected customers' choices. To investigate if background music in an open-air market could have a positive impact on customers or not, they conducted an experiment by manipulating background music played all around an open-air market. They wanted to test if it could increase sales volume. Their results showed that music conditions lead to more differences between subjects than no-music conditions. The clients that were exposed to background music bought products that were more expensive than those bought by customers of the control group. They, as a result, concluded that those external factors

(e.g., music) are as important as more classical characteristics like sellers' competence, prices, or availability of products.

In other work, Ferreira, Han, and Costeira (2018) investigated how physical retailers implement effective shelf management strategies, e.g. through optimizing product assortment and placement to raise shopper's awareness and their purchase impulsiveness. As they write about their design, "We are able to assign incoming books into a treatment group, in which books are placed at the edge of the table, and a control group, in which books are placed at the center of the table." (p.4). In this experiment, they set up a physical environment that was exactly the same as the way we see an online environment. In this way, they can test if product placement matters or not. The result is that books placed at the edge of the table are more likely to be picked and taken than those placed at the center of the table. This is unsurprising as shoppers are usually more attracted to reach for books that are placed in prominent spots when browsing over a display because they are more salient. . More interestingly, they also show that for books that are bought, shoppers are equally likely to buy books placed at the edge and at the center of the table. This suggests that book placement affects consumer choice through its effect on the search decision and not through its effect on the purchase decision.

Lastly, Hokkanen (2012) states that effective visual merchandising techniques help establish and maintain store image in the customer's mind and provide support for the rest of the store's sales efforts. In their experiment, they used a variety of variables in the atmosphere to see if those had a significant impact on purchase intention of consumers. These variables include cleanliness, music, scent, temperature, lighting, color, and display/ layout. In the end of the experiment, they concluded that the cleanliness, scent, lighting and display/layout had significant positive influences on the consumers' purchase intention while music and color had minimal impact on the consumer purchase intention. Interestingly, the temperature had almost no impact on the consumer while shopping.

Those above research typically tests a single factor to examine if that affects the customer's decision or not. But different factors might interact. And in the presence of other factors, some might be more important than others. The study by Iberahim, Zulkurnain, Raja 'Ainal Shah, and Rosli (2019) somewhat investigates which factor will affect the customers the most. However, this study doesn't provide valid evidence that customers are most affected by the window display, numerous mannequin heads, and promotional signage but not the lighting because they simply just send out surveys. In other words, the participants who are filling out the survey might think they are affected the most by the window display, although, in reality, they get affected the most by another factor unconsciously. As a result of that, we designed an

experiment in order to address our question: What exactly is the factor that most affects customers?

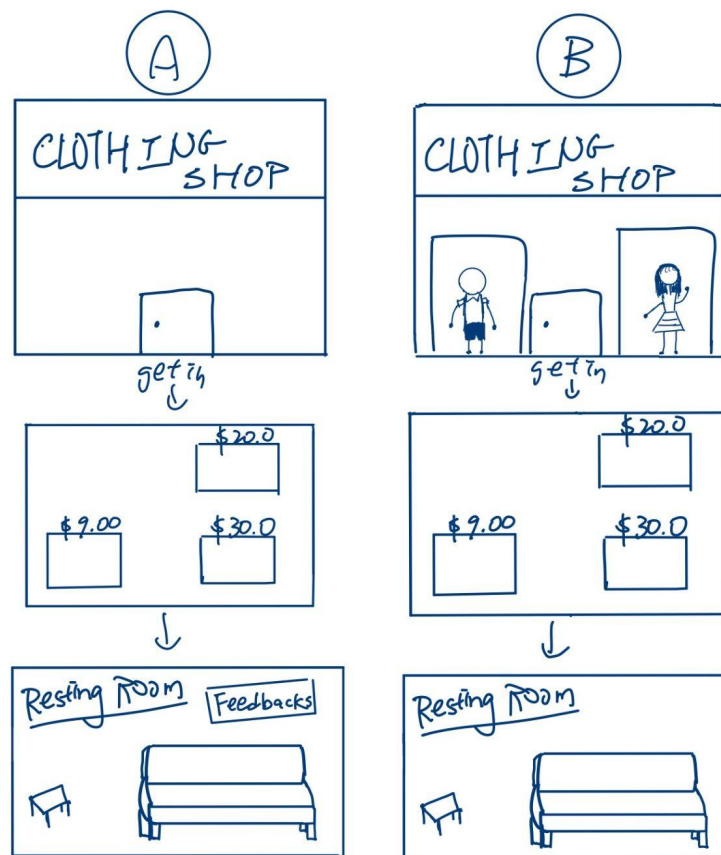
## Methods

Subjects : 30 participants were (22 females and 8 males, age-range 15-20) recruited through email.

### Procedure:

We used within subject design and varied 3 variables: whether the store front had a display, whether there was a discount, and whether feedback from other customers' experience in the store was available to view. Different images were created to show each store varying along one or more of these dimensions. This resulted in eight images. Each image was randomly paired with another image that differed. One store was called store A and the other was called store B.

Here is an example of one of the test trials:



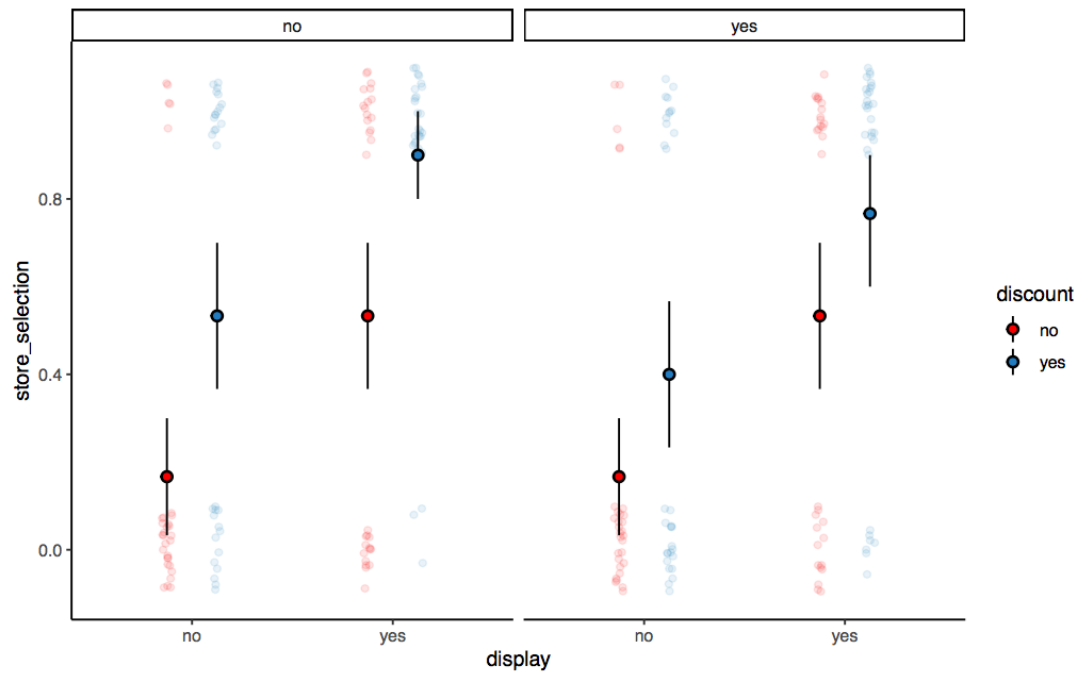
To ensure that all combinations of stores were shown across participants, we had 8 pairs of store A and B in one version of the survey, and had a total of 7 different versions that were randomly distributed to participants. In all trials, after viewing store A and B, participants were asked three questions:

1. “If you were planning to go shopping, which store would you want to go in?”  
Participants will choose whatever they want to go to store A or B.
2. “If you were planning to go shopping, how interested would you be in shopping in store A? Participants made ratings on a 1 - 5 scales ranging from not at all interested to very interested.
3. “If you were planning to go shopping, how interested would you be in shopping in store B?” Participants made ratings on a 1 - 5 scales ranging from not at all interested to very interested.

### Hypothesis:

We hypothesize that the display and the discount will affect customers’ choice the most instead of the feedback because the window display allows people to see clearly what the store is selling, and it will be reasonable that they choose a cheaper price over a more expensive price for the same items. However, other customers’ feedback might not be that important because they might just focus on their own shopping experience to decide whether they want to buy the product or not.

### **Results**

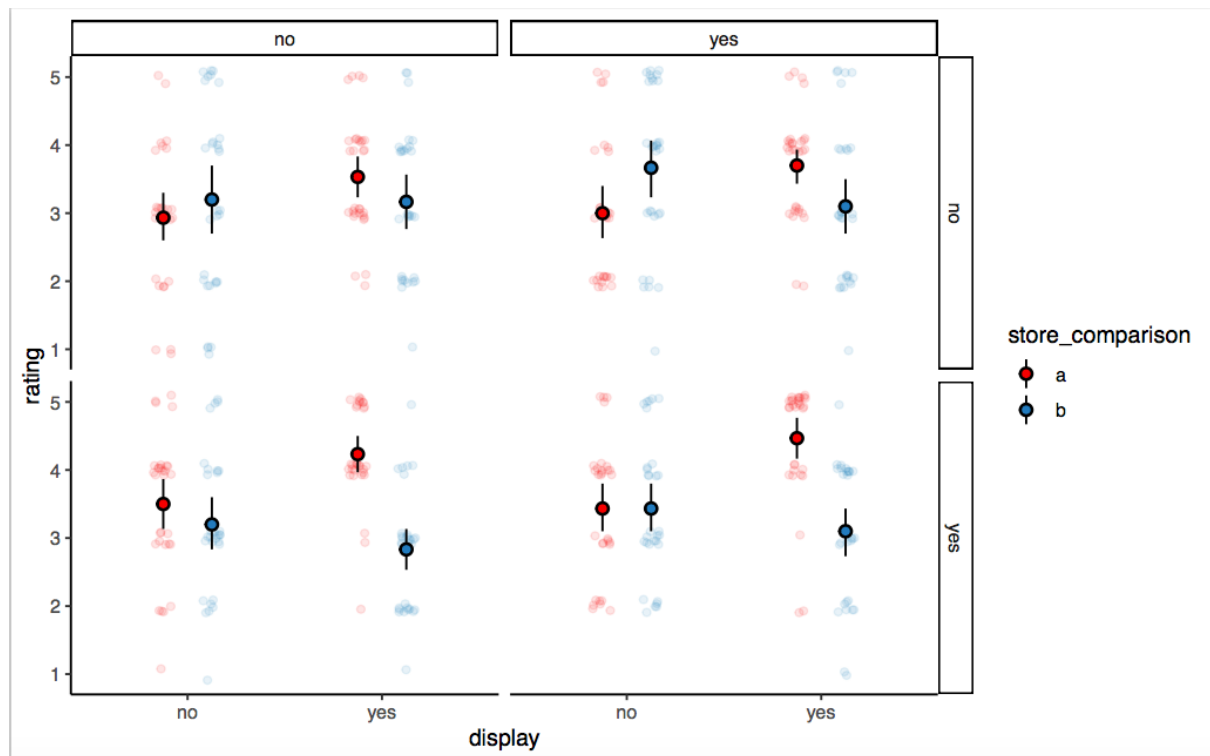


The above plot shows two panels. On the left is the condition where feedback was not received; on the right is the condition where feedback was received. The x-axis is whether there was a display and the means, which are represented by the red and blue dots, represent whether there the price was rounded. The y-axis indicates the proportion of people selecting store A over B.

From the plot, we can see that when there is no display, no discount and no feedback (the one at the bottom left corner), the overall average preference for store A is the lowest (around 0.2). This means that customers will prefer store B over store A since 1 means that they like store A the most and 0 means they like store B the most. However, when there is no display, no discount, but there is feedback, the overall average still stays the same (both are around 0.2). This indicates that feedback doesn't play a major role when it comes to factors that affect customer's behavior in a physical store.

Next, we can see that discounts play a substantial role in affecting customers' choice. In both the right and left panels of the graph, we can clearly see that people are much more inclined to select store A when there is a discount (blue dots). Discounts may be efficient tools in terms of attracting customers. But we can also see that having a display plays an equally effective role in consumer choices in comparison to the discount. From both sides of the graph, that is, in both the left and right panels, we can notice that regardless of a discount, having a display leads to greater selections of store A. Hence, it seems that displays also play a paramount role in affecting people's decisions. In conclusion, feedback doesn't affect

customers' judgments at all, but both the display and the discount play an important factor that affect customers' selection of store A over store B.



The above plot shows a left and right panel, which again concerns whether feedback would be received. The top and bottom panels represent whether there was a discount or not. The x-axis indicates whether there was a display, while the red and blue dots are mean ratings for store A and store B. Ratings, which are shown on the y-axis, are ratings they would want to go into each store respectively, with higher ratings indicating more interest.

If we compare this graph to the first graph (the one shown above) we can notice an interesting fact. From the first question, when they are choosing if they want to go into store A or B, the overall trend is clear: If there is no display, people show no real preference between the two stores, even if there is a discount and even if feedback is provided. But when there is a display, now people show a preference. In particular, if there is a display and a discount, people show much more interest in store A. And, as in the first plot, they do so regardless of feedback. This tells us that when it comes to choosing a store to look at, discounts and displays can both affect people's choice. But if you want to let the customers really get interested in your store and buy something from it, you need to have both the discount and the display presented.

## Conclusion

In conclusion, we find support for our hypothesis: the display and the discount do affect the customers the most and feedback doesn't play an important role in affecting customers' decision. We found out that the display and the discount play an equal effect in terms of influencing the customers, but we also discovered other interesting facts: when it comes to choosing a store to look at, discount and display can both affect people's choice. But if you want to let the customers really get interested in your store and buy something from it, you need to have both the discount and the display presented.

We note that the participants whether feedback, display, and website matter to them if they shop online instead of a physical store. Participants were asked three questions:

1. When shopping online, how important is receiving feedback from others(e.g., customers review) to you?
2. When shopping online, how important is the website display (e.g., clearly displays the product) to you?
3. When shopping online, how important is it that promotional advertisements be displayed?

We found that feedback was the major factor that they considered if shopping online, whereas website display and promotional signs were less and equally important. Our next goal is to set an online experiment to test what factors affect customers' decision the most, like we do in this research, but instead of a physical store we will focus on an online store.

## References

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