

# The Impact of Brand Loyalty on the Compromise Effect

Lizzy Chen

**Abstract**—Though compromise effect is widely studied and used in the marketing strategies nowadays, few researchers have combined it with brand loyalty. Therefore, this study aims to find the impact of brand loyalty on the compromise effect. A comparative experiment was carried out through a questionnaire to reach the aim and 232 people of different genders and ages are involved. By analyzing the data, the results provided evidence of high brand loyalty will bring negative influence to compromise effect, while low brand loyalty will bring positive influence to compromise effect.

**Index Terms**—Behavioral economics, brand loyalty, compromise effect.

## I. INTRODUCTION

Businesses often use principles of behavioral economics in their sales to increase their customers' purchases. One of the most famous and widely used principles is the compromise effect, whereas by adding an extreme option to a group of commodities, the option that used to have the highest price will become a compromise option, which is often more attractive and thus increases the probability of being chosen. This is due to "Extremeness aversion reflects that intermediate options tend to be favored because disadvantages loom larger than advantages and intermediate options have relatively smaller disadvantages than extreme options" [1]. For the effectiveness and practicality of this effect, it has been called "among the most important and robust phenomena documented in behavioral research in marketing." [2].

Several experiments have examined the compromise effect and the relationship between different factors, including self-confidence, task difficulty, and so on. Through these experiments, many useful conclusions have been drawn. For example, individuals with lower self-confidence were more likely to display uncertainty in the decision making process and were, therefore, more likely to choose the compromise option in a trinary choice set [3]; participants with high or low objective math skills both exhibited no compromise effect [4].

However, almost all of these studies are based on virtual products that don't use real brands. Furthermore, there's no research about whether brand loyalty affects the compromise effect which is a big loophole in the study of the compromise effect. Research on the influence of brand loyalty on compromise effect is very important since in practical application, ignoring brand factors may lead to sales failure to achieve the expected results.

To place the empirical research described in this paper in

the context of relevant literature on the influence of the brand on compromise effect, an overview of a current study about brand familiarity and compromise effect is provided. This literature review will be followed by a detailed overview of the study's assumptions and methods for data collection.

Sinn *et al.* [5] consider that brands name will give consumers more information to help them reduce consumption risks, which decreases consumers' reliance on relative positions. As a result, brand familiarity will become a major factor in customers' choices, "compromise brands that are more familiar than extreme brands are more preferred, whereas, compromise brands that are less familiar than extreme brands are less preferred". To verify this hypothesis, the researchers offered a total of six products, with two from well-known scanner brands, two from well-known camera brands, and two from unknown scanner brands. The participants were first asked to imagine buying a scanner and they had three brands to choose from. They could see the name of the brand and the price of the product. The three brands are one well-known scanner brand, one well-known camera brand, and one unknown scanner brand. They needed to first rate their familiarity, quality beliefs, and attitudes towards these options and then select one from them. Finally, they indicated how well the well-known camera brand fits into the new product category, which is the scanner here. The result shows that when the two camera brands being the extreme choices in price and the participants give high scores of familiarity to them, they are often selected though they don't make a scanner at all. Moreover, they even replaced the compromise option to be the one with the highest proportion of choices.

Based on the study above, I hypothesize that brand loyalty will change customers' preferences: products with greater brand loyalty will be more preferred, whereas, products with less brand loyalty are less preferred. When customers have high brand loyalty to a certain brand, the compromise effect may be ineffective for customers who will choose the brand instead of following the compromise effect. On the other hand, low loyalty may have a positive or no impact on the compromise effect.

## II. METHOD

### A. Participants

The convenience sample was composed of 232 people, including 142 males and 90 females, ranging in age from 10 to 70 years ( $M=34.3$ ,  $SD=13.9$ ). All participants were selected online through WeChat and QQ by releasing questionnaires among friends, classmates, and colleagues, among which 97.41% were from China. Due to this sampling method, the results were mainly targeted at middle-income urban residents in China.

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### B. Materials

The experiment was completed by a questionnaire. The questions were designed to have some plot so that participants wouldn't be impatient and scribble. The whole scenario of the questionnaire was set in the mall, and the questionnaire was named "Your Day in the mall", so that its purpose can't be inferred from the name. The questions include one scale of items and 14 multiple choices, with the first two about basic information – gender and age. The following questions focused on shopping in the mall, involving milk, coffee, juicer, headphones, bicycle and watch as the products. These products are all daily supplies and are suitable for setting variables such as price and volume.

### C. Procedure

To explore the impact of brand loyalty on customer choice, participants needed to rate their preference of well-known brands in several areas on a scale of one to seven, ranging from "dislike" to "like very much". The brands included Apple, Huawei, Nike, Adidas, Starbucks, and Coca - Cola. The categories of the brands are phones, sports, and beverages respectively. According to Marc Fetscherin *et al.* [6], brand love has a positive influence on brand loyalty. Therefore, the loyalty they attach to brands can be judged by their rating of brand preference.

Participants were then asked to choose the one they preferred from three options, which were the same products at three prices. During this time, brands of products weren't offered. Based on the compromise effect, most people should choose the option with the middle price. After that, the question would provide a new piece of information - one of the options is cobranded (Co-branded brands will be selected from the six brands mentioned above). It's important to note that the products made by the co-branded brands are not related to the products in the options. The reason for this is that this experiment only intends to explore the influence of brand loyalty on the choice, and should not involve other factors, such as the product categories and attributes of different brands.

These forms of questions will be repeated six times. According to the hypothesis, if the participant has high brand loyalty to a certain brand when the subject is informed that a certain product is a co-branded brand, his choice will change from a compromise option to a co-branded brand option.

The whole questionnaire takes about two to three minutes to be finished and it's in Chinese. Participants can complete the survey directly by clicking on the link or scanning the QR code which is quite convenient. Moreover, they weren't told what this questionnaire was about before finishing it and they had their right not to answer.

## III. RESULT AND DISCUSSION

According to my hypothesis, high brand loyalty leads to a high percentage of selection and this may make the compromise effect noneffective. On the other hand, low brand loyalty leads to a low percentage of selection which doesn't influence the compromise effect or there might be a positive effect on compromise effect.

In order to compare the different participant options before and after providing co-branding information, the

experimental data were summarized and sorted out by drawing tables. Each product contained the results of three groups – group one for all participants, group two for participants with brand loyalty  $\geq 5$ , and group three for participants with brand loyalty  $\leq 4$ . Meanwhile, each group includes two conditions, which are original preference and preference with co-branded brand involved. (refer to Appendix Table I to Table XVIII).

The results show that when one's brand loyalty is greater than or equal to five, changing an option to the co-branded one will significantly increase the percentage of choosing this option, with the average percentage increasing from 31.1% to 44.7%. This increase makes the co-branded option instead of the compromise option the most selected one, as the average percentage of choosing the compromise option dropped from 44.1% to 32.7%.

However, when brand loyalty is less than or equal to 4, changing the option to the co-branded one will reduce the number of choosing this option with an average percentage dropped from 30.5% to 26.3%. Meanwhile, the average percentage of choosing the compromise option increased from 40.3% to 42.9%, which means that low brand loyalty increases the compromise effect.

Moreover, from the overall data point of view, after adding the co-branded option, the percentage of choosing the compromise option dropped from 41.9% to 36.3%, while the co-branded option increased from 30.8% to 39.6%, which replaced the compromise option and became the most selected option.

This statistical result fully proves the hypothesis, when the brand loyalty of an extreme option is very high, the extreme option will replace the compromised option to be the most selected one. However, when the brand loyalty of extreme options is low, customers will be more inclined to choose compromise options, which strengthens the compromise effect.

## IV. CONCLUSION

To summarize, brand loyalty will have a significant impact on product selection - high brand loyalty will bring negative influence to compromise effect, while low brand loyalty will bring positive influence to compromise effect.

Though this experiment makes a preliminary exploration of the influence of brand loyalty on the compromise effect, there are still many unresolved aspects. In the design of the questionnaire, all co-branded options were set as the most expensive option, however, there was no exploration of the least expensive option as co-branded one. There are also slight flaws in the product settings in the options. After interviews with participants, I learned that some participants also have different considerations for different types of products - such as for bicycle, headsets, and other non-disposable products, even when they weren't co-branded, they were more inclined to choose the most expensive option - This can also be seen from the table in the appendix, in table1-1, the percentage of the original preference for the most expensive option was as high as 37.5%, while the percentage of the original preference for the compromise option was 33.2%.

Besides, this research hasn't gone in detail with differences

in brand loyalty between different types of products. Therefore, an important next step might be studying how brand loyalty to different types of products has different effects on the compromise effect.

My research is a first step in addressing this issue and I believe that continuing this line of research will be meaningful for this academic field.

## APPENDIX

TABLE I: APPLE BRAND TOTAL

Selection	Original Preference		With Apple Logo involved	
	Person	Percent	Person	Percent
A A bicycle with 21 gears ¥400	68	29.3%	63	27.2%
B A bicycle with 24 gears ¥600	77	33.2%	78	33.6%
C1 A bicycle with 27 gears ¥800	87	37.5%		
C2 A bicycle with 27 gears ¥800 co-branded by Apple			91	39.2%

TABLE II: APPLE BRAND LOYALTY  $\geq 5$ 

Selection	Original Preference		With Apple Logo involved	
	Person	Percent	Person	Percent
A A bicycle with 21 gears ¥400	47	34.1%	41	29.7%
B A bicycle with 24 gears ¥600	44	31.9%	32	23.2%
C1 A bicycle with 27 gears ¥800	47	34.1%		
C2 A bicycle with 27 gears ¥800 co-branded by Apple			65	47.1%

TABLE III: APPLE BRAND LOYALTY  $\leq 4$ 

Selection	Original Preference		With Apple Logo involved	
	Person	Percent	Person	Percent
A A bicycle with 21 gears ¥400	21	22.3%	22	23.4%
B A bicycle with 24 gears ¥600	33	35.1%	46	48.9%
C1 A bicycle with 27 gears ¥800	40	42.6%		
C2 A bicycle with 27 gears ¥800 co-branded by Apple			26	27.7%

TABLE IV: HUAWEI TOTAL

Selection	Original Preference		With Huawei Logo involved	
	Person	Percent	Person	Percent
A Juicer A ¥100	43	18.5%	48	20.7%
B Juicer B ¥300	119	51.3%	117	50.4%
C1 Juicer C ¥500	70	30.2%		
C2 Juicer C ¥500 co-branded by Huawei			67	28.9%

TABLE V: HUAWEI BRAND LOYALTY  $\geq 5$ 

Selection	Original Preference		With Huawei Logo involved	
	Person	Percent	Person	Percent
A Juicer A ¥100	15	12.5%	14	11.7%
B Juicer B ¥300	65	54.2%	56	46.7%
C1 Juicer C ¥500	40	33.3%		
C2 Juicer C ¥500 co-branded by Huawei			50	41.7%

TABLE VI: HUAWEI BRAND LOYALTY  $\leq 4$ 

Selection	Original Preference		With Huawei Logo involved	
	Person	Percent	Person	Percent
A Juicer A ¥100	28	25.0%	34	30.4%
B Juicer B ¥300	54	48.2%	61	54.5%
C1 Juicer C ¥500	30	26.8%		
C2 Juicer C ¥500 co-branded by Huawei			17	15.2%

TABLE VII: NIKE TOTAL

Selection	Original Preference		With Nike Logo involved	
	Person	Percent	Person	Percent
A earphone A ¥50	77	33.2%	68	29.3%
B earphone B ¥100	88	37.9%	76	32.8%
C1 earphone C ¥200	67	28.9%		
C2 earphone C ¥200 co-branded by Nike			88	37.9%

TABLE VIII: NIKE BRAND LOYALTY  $\geq 5$ 

Selection	Original Preference		With Nike Logo involved	
	Person	Percent	Person	Percent
A earphone A ¥50	34	29.3%	28	24.1%
B earphone B ¥100	45	38.8%	33	28.4%
C1 earphone C ¥200	37	31.9%		
C2 earphone C ¥200 co-branded by Nike			55	47.4%

TABLE IX: NIKE BRAND LOYALTY  $\leq 4$ 

Selection	Original Preference		With Nike Logo involved	
	Person	Percent	Person	Percent
A earphone A ¥50	43	37.1%	40	34.5%
B earphone B ¥100	43	37.1%	43	37.1%
C1 earphone C ¥200	30	25.9%		
C2 earphone C ¥200 co-branded by Nike			33	28.4%

TABLE X: ADIDAS TOTAL

Selection	Original Preference		With Adidas Logo involved	
	Person	Percent	Person	Percent
A watch A ¥60	57	24.6%	59	25.4%
B watch B ¥200	98	42.2%	84	36.2%
C1 watch C ¥340	77	33.2%		
C2 watch C ¥340 co-branded by Adidas			89	38.4%

TABLE IX: ADIDAS BRAND LOYALTY  $\geq 5$ 

Selection	Original Preference		With Adidas Logo involved	
	Person	Percent	Person	Percent
A watch A ¥60	20	19.4%	18	17.5%
B watch B ¥200	44	42.7%	32	31.1%
C1 watch C ¥340	39	37.9%		
C2 watch C ¥340 co-branded by Adidas			53	51.5%

TABLE XII: ADIDAS BRAND LOYALTY  $\leq 4$ 

Selection		Original Preference		With Adidas Logo involved	
		Person	Percent	Person	Percent
A	watch A ¥60	37	28.7%	41	31.8%
B	watch B ¥200	54	41.9%	52	40.3%
C1	watch C ¥340	38	29.5%		
C2	watch C ¥340 co-branded by Adidas			36	27.9%

TABLE XIII: STARBUCKS TOTAL

Selection		Original Preference		With Starbucks Logo involved	
		Person	Percent	Person	Percent
A	Milk 500ml ¥14	81	34.9%	73	31.5%
B	Milk 900ml ¥23	73	31.5%	68	29.3%
C1	Milk 1300ml ¥30	78	33.6%		
C2	Milk 1300ml ¥30 co-branded by Starbucks			91	39.2%

TABLE XIV: STARBUCKS BRAND LOYALTY  $\geq 5$ 

Selection		Original Preference		With Starbucks Logo involved	
		Person	Percent	Person	Percent
A	Milk 500ml ¥14	29	30.9%	23	24.5%
B	Milk 900ml ¥23	36	38.3%	25	26.6%
C1	Milk 1300ml ¥30	29	30.9%		
C2	Milk 1300ml ¥30 co-branded by Starbucks			46	48.9%

TABLE XV: STARBUCKS BRAND LOYALTY  $\leq 4$ 

Selection		Original Preference		With Starbucks Logo involved	
		Person	Percent	Person	Percent
A	Milk 500ml ¥14	52	37.7%	50	36.2%
B	Milk 900ml ¥23	37	26.8%	43	31.2%
C1	Milk 1300ml ¥30	49	35.5%		
C2	Milk 1300ml ¥30 co-branded by Starbucks			45	32.6%

TABLE XVI: COCA-COLA TOTAL

Selection		Original Preference		With Coca-Cola Logo involved	
		Person	Percent	Person	Percent
A	Small ¥32	54	23.3%	60	25.9%
B	Medium ¥35	128	55.2%	100	43.1%
C1	Large ¥38	50	21.6%		
C2	Large ¥38 co-branded by Coca-Cola			72	31.0%

TABLE XVII: COCA-COLA BRAND LOYALTY  $\geq 5$ 

Selection		Original Preference		With Coca-Cola Logo involved	
		Person	Percent	Person	Percent
A	Small ¥32	20	21.1%	21	22.1%
B	Medium ¥35	56	58.9%	38	40.0%
C1	Large ¥38	19	20.0%		
C2	Large ¥38 co-branded by Coca-Cola			36	37.9%

TABLE XVIII: COCA-COLA BRAND LOYALTY  $\leq 4$ 

Selection		Original Preference		With Coca-Cola Logo involved	
		Person	Percent	Person	Percent
A	Small ¥32	34	24.8%	39	28.5%
B	Medium ¥35	72	52.6%	62	45.3%
C1	Large ¥38	31	22.6%		
C2	Large ¥38 co-branded by Coca-Cola			36	26.3%

## CONFLICT OF INTEREST

The author declares no conflict of interest.

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**Lizzy Chen** was born in Shanghai, China. She's a high school student in Shanghai Qibao Dwight High School. She's interested in economics and had earned NEC China Finals 2021 Critical Thinking Top Team in Economics analysis DR Division, NEC China Finals 2021 Critical Thinking Top Team in Essay writing DR Division, NEC China Finals 2021 Critical Thinking Top Team in Problem Solving DR Division, and NEC China Finals 2021 U-FEB Simulation overall team award in DR Division. She's also

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