

A Button Promotes Tasting

Chikayoshi Tsuda
School of Economics
Osaka University
Osaka, Japan
at9d27@gmail.com

Naohiro Matsumura
Graduate School of Economics
Osaka University
Osaka, Japan
matumura@econ.osaka-u.ac.jp

Abstract—This paper proposes a method to promote food tasting from the viewpoint of Shikakeology. Accordingly, we experimented with a button that triggers “commitment and consistency” and verified whether this could attract subjects to the tasting. The results showed that the button helped subjects to remain consistent, and it was effective in promoting tasting.

Index Terms—shikake, button, commitment and consistency, tasting

I. INTRODUCTION

There are an overwhelming array of products available today, and so they do not readily sell. Therefore, the importance of sales promotion is increasing for all members of the distribution channel [1] and much research has been conducted on consumer reaction and the effects of sales promotions.

However, some consumers feel resistance to sales promotions. Specifically, consumers sometimes refuse promotions such as food tasting because they feel an implicit pressure that they must buy the food.

In this study, we propose a solution to this problem from the perspective of Shikakeology, which is a research approach that aims to attract spontaneous behavior in people and trigger change. We propose and verify a method with a shikake that makes consumers want to voluntarily participate in sales promotions rather than being forced. In this experiment, we examined whether it is possible to attract people to sample food by using a button that triggers “commitment and consistency.”

In Section II, we review previous research and experiments. In Section III, we explain the shikake we used in our experiments. We discuss our hypothesis in Section IV, and our experiment method in Section V. Our results are shown in Section VI, and we conclude in Section VII.

II. REVIEW OF RELATED STUDIES

A. The Affinity between Shikakeology and Tasting

According to Matsumura [2], [3], a shikake is an embodied trigger for behavior modification to solve social or personal problems. It only increases the individual’s choice of action and does not force them. It encourages people to voluntarily choose by making their choices look more attractive. Common methods such as pop-up ads or tasting by salespersons have resulted in consumers feeling psychological resistance to sales promotions, creating further resistance. However, shikakes attract the attention of customers to try tasting a product



Fig. 1. Voting-style food tasting.

despite themselves. Therefore, shikakes satisfy the original purpose of sales promotion rather than conventional methods.

B. Experiments on Food Tasting through Shikakeology

There are a few experiments with shikakes that have attracted consumers to enjoy food tasting voluntarily.

Zhang [4] promoted tasting behavior by combining tasting with voting (Fig. 1). In this experiment, consumers had two kinds of sampling food with toothpicks. After eating the food, they used the toothpick to vote for the food they liked more. Consequently, the tasting rate, which was initially 11%, rose to 20% with the voting-style.

Mae and Matsumura [5] experimented using an eye-catching object (Fig. 2) which made the sampling more prominent and encouraged tasting. The results showed that this object effectively attracted attention from shoppers and induced them to taste the jam on offer.

As these prior studies show, shikakes have been considered valid methods to lower consumers’ psychological resistance to sampling food, making them want to taste the product.

C. Commitment and consistency

We used a traditional method called “commitment and consistency,” which is used to control people’s behavior, as the attractiveness of a shikake. By definition, “commitment and consistency” is a psychological mechanism that describes people’s behavior regarding their consistency with their initial actions or thoughts [6], [7].



Fig. 2. The eye-catching object.

Many studies have considered the psychological mechanism, and have verified its effectiveness. Sherman [8] proved the principle in an experiment about volunteer work at the National Cancer Institute. First, Sherman asked the subjects through a questionnaire if they were willing to volunteer. Participants knew that they had no obligation to participate in volunteer work. Consequently, many subjects answered yes, and 31% of all subjects took part due to commitment and consistency while 4% did so without the questionnaire. Greenwarld et al. also succeeded in improving the turnout rate using the same method [9]. However, these results might be because doing volunteer work or voting are considered morally right things to do. That is, the subjects hesitated to say “NO” so they chose “YES” leading to an increase in the volunteer participants and the votes received. Thus, highly social behavior may lead to YES answers and intended behavior.

Some methods have been developed for actions that are not highly social behaviors. These are the foot-in-the-door method and the foot-in-the-mouth method. The former, proposed by Freedman & Fraser [10], is a method of making a related small request that can be readily accepted by the listener in advance to have him/her receive a specific large request. This takes advantage of the desire to maintain consistency. The latter was proposed by Howard [11] and is a more straightforward method, in which speakers lead listeners to the desired behavior by asking if he/she is in a good mood. People who have expressed a positive feeling for the trivial question once tend to respond positively to subsequent requests. We can learn from those methods and experiments that we do not have to ask receivers direct questions about what you want them to do. This is because people try to maintain consistency if they show a positive reaction to other people such as consent or favorable responses to relevant content.



Fig. 3. The shikake to promote tasting.

In Fazio, Sherman, and Herr’s experiment [12], they activated the principle of consistency using a button. First, children were divided into two groups and received the same toys. Children in the first group were asked to push the button when the toy was interesting, but ones in the other group were asked to do it when it was not interesting. Subsequently, the children were given the toys again and evaluated how interesting they were. As a result, they rated the toys higher or lower based on the level of fun when they pressed the button compared to when they did not. This study suggests that the button alone could influence impressions of the product with the principle of consistency; however, it did not change their behavior.

III. SHIKAKE TO PROMOTE TASTING

We combined the experiments of earlier research. In a questionnaire format, we asked the subjects an indirect question about tasting and let them answer it with a button. The purpose of this study was to examine whether this method could attract people to tasting by pressing a button that triggered “commitment and consistency.”

Our experiment was conducted at a bakery in Ikeda city, Osaka. We created a shikake, as shown in Fig. 3. The shikake includes three materials: a questionnaire, a button, and a stand to put them on. The questionnaire asks “are you interested in our new bread?” and explains how to use the button as a notification from the store to the customers. First, we placed this shikake where consumers could find it earlier than a new bread tasting. Customers read the notice, and if they were interested in the new bread, they could express their opinion by pressing a button. The purpose of the shikake was to let them try the new bread because they made a “yes” sign with a button and wanted to be consistent.

IV. HYPOTHESIS

We experimented with the shikake described in Section III and examined the effect of the button using “commitment and consistency.” We hypothesize that pressing the button has a positive effect on tasting behavior.



Fig. 4. The bakery.



Fig. 6. The questionnaire only under condition B.

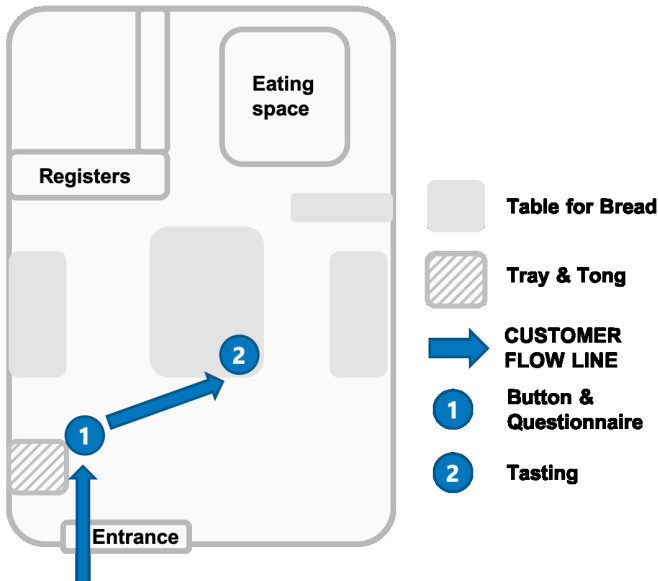


Fig. 5. Store map.

V. METHODS

The experiment was conducted at a bakery (Fig. 4) in the Ishibashi shopping street in Osaka. The store opened in 1929 and will pass its 90th anniversary this year. The customers include students attending the nearby Osaka University and local seniors, who are the main customers of the shopping district. The shikake was placed in position ① in Fig. 5, and tasting was set in position ② in the store.

To evaluate the hypothesis, we had three types of experimental conditions as follows:

- A) The stand only,
- B) Questionnaire on the stand (Fig. 6), and
- C) Questionnaire and button on the stand (Fig. 3).

By comparing these three conditions, we examined how effective the button was for promoting food tasting. Under

TABLE I
THE EXPERIMENTAL SCHEDULE.

	11:00–11:40	11:40–12:20	12:20–13:00
July 11	A	B	C
July 12	C	A	B
July 13	B	C	A
August 1	B	C	A
August 2	A	B	C
August 3	C	A	B
August 8	C	A	B
August 9	B	C	A
August 10	A	B	C

these experimental conditions, we observed the customers for 9 days (from July 11 to July 13, August 1 to 3 and August 8 to 10 in 2019) from 11:00 to 13:00, which is a relatively busy time. The experimental conditions were changed every 40 minutes every day so as not to be affected by the time of day. The detailed experimental schedule is shown in Table I. We observed attributes like gender and age, reaction to the shikake (saw the questionnaire/pressed the button), and attraction behavior (to tasting).

VI. RESULTS

A. Overview

Consequently, a total of 733 people were observed, as shown in Table II. The number of people who tried tasting for each experimental condition was 25 out of 247 (10.1%) in Condition A, 30 out of 256 (11.7%) in Condition B, and 52 out of 230 (22.6%) in Condition C. Compared with the total number, there are no substantial differences between requirements A and B, however requirement C is almost twice as much as A and B.

B. Analysis

To verify the hypothesis, we examined the effect of observation items on tasting behavior by using logistic regression

TABLE II
OBSERVED DATA.

	Experimental condition	In-store	Sex		Age						At the Stand		
			Male	Female	<10s	20s	30s	40s	50s	60s≥	Watch	Button	Tasted
July 11	A	25	9	16	0	1	1	4	6	13	0	0	3
	B	27	9	18	0	1	4	3	9	10	10	0	2
	C	20	3	17	0	1	3	1	10	4	14	1	4
July 12	A	33	9	24	3	3	5	7	12	4	0	0	5
	B	19	4	15	0	2	2	3	8	3	9	0	0
	C	48	4	44	2	1	2	9	20	15	21	5	8
July 13	A	34	5	28	0	3	1	4	13	10	0	0	2
	B	36	18	17	7	4	7	8	8	1	18	0	4
	C	16	5	11	0	1	2	1	5	6	5	2	2
August 1	A	17	1	16	1	1	2	4	7	1	0	0	1
	B	34	4	30	1	3	6	6	8	10	12	0	4
	C	29	6	22	2	4	6	5	6	6	17	3	7
August 2	A	40	6	33	4	1	3	8	15	8	0	0	5
	B	44	9	35	8	0	5	5	7	14	7	0	7
	C	8	0	8	1	1	0	1	1	4	4	1	1
August 3	A	25	8	17	6	2	5	4	7	0	0	0	2
	B	21	5	16	1	0	3	3	10	4	8	0	3
	C	30	8	18	5	0	3	3	5	9	5	1	10
August 8	A	21	3	18	2	3	0	4	7	4	0	0	2
	B	25	8	17	4	5	4	3	3	6	6	0	4
	C	20	4	16	0	3	4	5	5	3	9	4	4
August 9	A	19	5	14	0	1	3	2	5	8	0	0	2
	B	23	5	16	3	0	5	3	1	11	3	0	3
	C	42	2	40	2	3	5	13	8	11	21	8	10
August 10	A	33	10	23	5	1	3	3	8	13	0	0	3
	B	27	5	23	6	1	3	6	6	6	8	0	3
	C	17	7	10	3	1	0	2	6	5	6	2	6
Sum	A	247	56	189	21	16	23	40	80	61	0	0	25
	B	256	67	187	30	16	39	40	60	65	81	0	30
	C	230	39	186	15	15	25	40	66	63	102	27	52

analysis. The objective variable was a tasting dummy (1 = tasted, 0 = did not taste), and the explanatory variable was a button dummy (1 = pressed the button, 0 = did not press it). Additionally, each experimental condition dummy (1 = correspond to experimental conditions, 0 = others), sex dummy (1 = male, 0 = female), and age dummy (1 = correspond to age, 0 = others) were added as control variables. Incidentally, since the button dummy only occurs in the experimental condition C, the cross term was noted.

The results after the analysis are shown in Table III. We will see the results regarding the hypothesis, “pressing the button has a positive effect on tasting behavior.” The act of pressing the button was highly significant for the tasting behavior ($p < 0.001$). Also, since the coefficient is positive, pressing the button affects promoting of the tasting. Therefore, the hypothesis was supported.

Beside the hypotheses, we also examined other results obtained from the data. From the partial regression coefficients, whether there is an effect when the conditions of other variables are fixed, was examined. As long as the button observed (only under experimental condition C) is included as a variable, comparison between conditions was performed between persons who did not press the button (button = 0). Condition B does not affect the tasting behavior and only the experimental condition C has a positive effect ($p < 0.05$). These results show that the questionnaire has no effect, and

TABLE III
LOGISTIC REGRESSION ANALYSIS RESULTS.

	Coef.	Std. Err.	
(Intercept)	-1.93	0.36	***
Condition B	0.11	0.29	
Condition C	0.57	0.29	*
Sex	0.01	0.28	
Age20	0.15	0.49	
Age30	0.16	0.42	
Age40	0.04	0.39	
Age50	-0.57	0.38	
Age60	-0.61	0.39	
Condition C × Button	2.35	0.47	***

*** $p < 0.001$, ** $p < 0.01$, * $p < 0.05$, . $p < 0.10$

merely putting the button has a positive effect on tasting behavior. Gender and age did not affect tasting behavior.

VII. CONCLUSION

In this study, we found that tasting can be promoted by a button using the principle of consistency. We also confirmed that pressing the button had a strong effect, and the button was effective even when users saw it without pressing it. There were no substantial differences between gender or age in tasting behavior.

The reason that the placement of the button had some effect on the tasting may be due to the high mental barrier to pressing the button. Some customers who answered mentally

“Yes” would try the new bread because of “commitment and consistency.” The desire to maintain consistency appears in the eyes of others and in one’s own heart [6][7]. Therefore, it seems that “commitment and consistency” worked and promoted the tasting behavior merely by seeing the button.

In this analysis, because we did not have enough data for the person who presses the button to analyze it, it was not possible to know any other conditions the consistency of the button works more strongly. Further investigations are needed to clarify these points. If they become clear, the effect of this shikake may be further improved.

To improve the shikake, it is necessary to consider a mechanism that makes users want to press the button more. One way to do this is to change the design. This time, the button was designed to be “Yes” so that it can be easily understood in a wide range of ages, and the effect can be demonstrated. However, for example, you may use a like button on Facebook, Instagram, and Twitter, etc. Matsumura defines a shikake trigger as one that attracts people by their similarities and the sense of incongruity that exists in places where they are not suited. Therefore, the like button may attract more people to the tasting than the button used in this experiment.

Finally, the data in this study showed that the button is effective for tasting at a bakery, but this approach could also apply to other tasting targets. Therefore, we wish to conduct similar experiments with other products or other places to evaluate the effectiveness of this method.

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