Nine-ending Price and Consumer Behavior: An Evaluation in a New Context

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Abstract: Nine-ending prices led to increase the amount of purchasing of women-customers. In order to generalize this effect in a new business context, an experiment was carried out. Two hundred and forty-one customers were tested in the cheeses department in a grocery. In half of the cases, the products were proposed with a nine-ending price (i.e. 1.99 €) whereas they were proposed with a zero-ending price (I. e.: 2.00 €) in the other cases. Results showed that nine-ending prices led to increase the mean purchase amount of the customers.

Key words: Odd pricing, nine-ending price, consumer behavior

INTRODUCTION

The effect of nine-ending prices (i.e. using 29.99 €uros rather than 30.00 €uros) on consumer behavior has been studied by academic researchers for a long date[1]. However, despite this long history, the research reports were only anecdotal and for a long time no experimental evaluation of the effect of such prices on consumer behavior was done. Schindler and Kibarian have published the first experimental study to test the real influence of such prices[2]. These experimenters have conducted an experiment with 90000 women through the cooperation of a direct-mail women's clothing retailer. In half of the cases, a 169-item semi-annual clearance catalog was presented with each price ending by 00 (zero-ending condition) whereas each price was one penny lower in the other condition (nine-ending condition). The results showed that nine-ending prices led to increase the amount that purchasers spend. These results provide the first well-controlled experimental demonstration that use of nine-ending prices can cause more consumer sales than the use of zero-ending prices one cent higher. In order to generalize this effect, a new evaluation was made in a new business context.

MATERIALS AND METHODS

The subjects were 241 (212 females and 29 males) grocery's customers of a middle-income suburban housing area of a middle town (70000 inhabitants) of the west Atlantic coast in France. The customer behavior was observed in the cheese department of the grocery. According to a random distribution the prices of some cheeses were presented with a nine-ending price (i.e. 1.99 €) or with a zero-ending price (I. e. 2.00 €). The price of each target was change every two hours according to a random distribution. The experiment was conduct during two days. Two confederates were used as observators in this experiment. They were instructed to act as a customer and to observe in a unobtrusive way the behavior of each customer who stood in front of the cheeses. Each confederate had to note if the customer bought or not one of the cheeses presented and, if he/she bought something, the confederate was instructed to note the price of the item(s). With this second dependant variable, it was possible to note the purchase amount of each customer.

RESULTS AND DISCUSSION

No differences were found due to sex of the subject; hence the analyze was conducted with the sex factor collapsed. The nine-ending prices produced a higher frequency of sales (51.2%) than did the zero-ending condition (44.1%). Furthermore, no statistical difference was between the two conditions : $P^2_{(1, N = 241)} = 0.96$, ns). The mean purchase amount of the customers was 6.53 €uros (SD = 1.95) in the nine-ending condition and of

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5.08 euros (SD = 2.22) in the zero-ending condition. The difference between the two means was highly significant (z = 3.72, p<.001).

The results of this experiment confirm Schindler and Kibarian's[2] results and indicate that the effect of nine-ending prices can be generalized to an other business situation. It was observed that nine-ending price can cause more consumer sales than the use of the zero price ending one cent higher. Furthermore, the statistical analysis show that nine-ending price had no effect on the rate of purchasers but had a positive effect on the amount the purchasers spend. This effect is interesting because it tends to prove that nine-ending prices do not lead more customers to buy but among those who buy, the amount of their purchases are higher. This effect could be explained by the underestimation mechanism[3]. According to this mechanism, consumer pay less attention to the end of the price. In this experiment according less attention to

the end of the price in the nine-ending price led the subject to underestimate the price of the cheese (i.e., 1.99 € becoming 1.90 € or perhaps 1.00 €) whereas this mechanism could not be activate in the case of zero-ending price (2.00 € becoming … 2.00 €). Further research are now necessary to evaluate the theoretical validity of this mechanism in order to explain the nine-ending price effect.

REFERENCES

1. Bader, L. and J. Weinland, 1932. Do odd prices earn money. J. Retailing, 8: 102-104.
2. Schindler, R. and T. Kibarian, 1996. Increased consumer sales response though use of 99-ending prices. J. Retailing, 72: 187-199.
3. Schindler, R. and A. Wiman, 1989. Effects of odd pricing on price recall. J. Business Res., 19: 165-177.