A Restaurant Field Experiment in Charitable Contributions

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Abstract: The issue of how to best elicit charitable contributions has long been an important one for charitable organizations. Some recent studies have examined different schemes for eliciting contributions for public radio and maximizing revenue for commercial purposes. Our study is a pure field experiment that was conducted in a restaurant. We varied the level of suggested contribution on the jar at the cashier to see if this had an effect on the revenue received; in one condition, did not make any suggestion. We do find differences in revenue depending on the suggested amount, showing that there is scope for strategy in choosing how to appeal to the potential donors. The amount requested does affect revenue, but it is not a monotonic relationship. We also find that not naming a suggested amount fares poorly in terms of generating revenue.

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1. Introduction

Charitable contributions in the United States were estimated to exceed $300 billion annually in 2007, 2008, and 2009.[1] This is roughly $1,000 for each person in the U.S., a not insignificant amount. Given the reliance of charitable organizations on these contributions, it is quite important to try to identify and implement effective methods for enhancing the revenue received. There has been some recent work on suggested donations to public radio and some study of the notion of paying-what-you-want as a pricing device. We extend both of these notions to fund-raising in a restaurant venue, exploring whether the suggested amount (if any) mattered with respect to the contributions raised.

Businesses like grocery stores and restaurants often ask customers (typically through having a donation jar at the check-out register) to donate money to a certain charity organization. One often sees a suggested certain donation level. But there has been little by way of systematic and controlled study regarding how the suggested donation level affects behavior in this environment. Our research question is to attempt to determine the optimal amount to suggest, or whether it is better to make no suggestion.

To the best of our knowledge, the closest cousin to our study is Shang and Croson (2009). They find a positive influence of social information on contribution in a field experiment involving an on-air fund-raising campaign for a public radio station; the most effective suggested level (of $75, $180, or $300, presented as: "We had another member who contributed [insert amount]. How much would you like to pledge today?" When callers were told $300, this increased average contributions to $120 from $107 in the control condition (no suggestion), an

[1] Giving USA 2009 and Giving USA 2010. The Giving USA Foundation; The Center on Philanthropy at Indiana University.

11% increase. However, suggestions for $75 (the normal median contribution) or $180 did not lead to significant improvements in contributions, relative to the control treatment.

Gneezy, Gneezy, Nelson, and Brown (2010) report the results of pay-what-you-want pricing (premiered by Radiohead for online purchases in 2007) for souvenir photos at a large amusement park. There were two main factors in the design: one dimension was to vary the fixed price for the photos in comparison with having people pay what they want, while the other dimension involved whether the customer was told that half of the payment would go to charity. The result was that at a standard fixed price, the charitable component only slightly increases while when participants could pay what they want the same charitable component created a treatment that was substantially more profitable.

We conducted four treatments in which we either suggested a contribution amount on the jar at the cashier in the restaurant or made no such suggestion. In principle, one might expect that higher suggested amounts would lead to higher contributions, as would seem consistent with the social-information results in Sheng and Croson (2009). Yet it also seems possible that suggesting (implicitly asking) for a higher amount could backfire. Previous work in psychology and goal setting suggest that behavioral goals need to be achievable in order to change behavior effectively. Also, in line with Gneezy et al., it might be the case that having no suggestion at all could be the most effective mechanism, as one might argue that suggesting an amount could undermine an intrinsic motivation to donate to a charity.

In fact, our results differ from Sheng and Croson (2009), in that the highest suggested amount (two dollars) induces lower contributions than two other suggested donations (fifty cents and one dollar). This suggests that it may not pay to be too aggressive in the size of the request. Furthermore, the pay-what-you want (PWYW) mechanism is also less effective than the two

lower donation suggestions, in contrast to the Gneezy et al. (2010) result where a charitable component in PWYW leads to an increase in the firms' revenue.

One tentative conclusion is that the size of one's request must be chosen judiciously. If one asks for too much, people may resist donating because it seems like the amount is higher then the common contribution. Another is that the PWYW mechanism is sensitive to details of the environment, as is also the conclusion of Gneezy et al. (2010).

2. Experimental Design and Implementation

The experiment was conducted from December 2010 to March 2011, at a Chinese Buffet restaurant located in California. The restaurant is around 9000 square feet and has approximately 350 and 1000 customers during weekdays and weekends respectively. The price is $8.99 for lunch and $13.50 for dinner. These prices show that the restaurant should be affordable to most people and it also indicates that the participants of the experiment would most likely be coming from the average population.

The experiment is separated into four treatments where each treatment is assigned with a designated asking amount ($.50, $1, $2, PWYW). There were two rounds of experiments where each treatment was being conducted a week after another and therefore each treatment has two weeks of data, separated by an interval. Also, the charity revenue was recorded on a daily basis (Mon-Sun); thus, we have 14 daily observations for each treatment. The donation period was the operating hours of the restaurants, which ran from 11:00 a.m. until 10:00 p.m. A donation canister with a label of a charity organization was set up at the cashier counter in order for customers to make donations. Every customer paid to enter the buffet area of the restaurant and was asked each to make a contribution at that time. This way we avoid a selection issue, since

all (as opposed to some) customers were asked for a chance to participate in the experiment. The donation revenue was left in the canister, which was emptied on a daily basis.

3. Results

The daily donation revenue is presented in Table 1 below.

Table 1: Daily donation revenue ($)

Treatment	Amount	Treatment	Amount	Treatment	Amount	Treatment	Amount
1	11.40	2	3.69	3	2.84	4	1.35
1	4.53	2	0.54	3	0.52	4	1.70
1	5.25	2	0.37	3	1.52	4	0.70
1	3.62	2	1.66	3	0.35	4	0.68
1	0.25	2	2.49	3	0.17	4	1.81
1	2.42	2	9.05	3	0.72	4	0.52
1	2.00	2	5.31	3	1.77	4	0.47
1	5.50	2	3.77	3	2.00	4	4.25
1	0.64	2	2.69	3	5.25	4	1.04
1	3.62	2	2.10	3	1.08	4	0.60
1	3.25	2	0.76	3	1.15	4	3.00
1	0.45	2	1.88	3	2.08	4	0.31
1	4.18	2	4.53	3	1.69	4	2.43
1	2.84	2	3.48	3	1.00	4	2.22
Average	3.568 (0.752)		3.023 (0.610)		1.581 (0.345)		1.506 (0.307)

Standard deviations in parentheses

We conduct simple Wilcoxon-Mann-Whitney ranksum tests to test for significant donations across treatments, the test statistics and *p*-values are shown in Table 2.

Table 2: Statistical tests

Treatment comparison	Z-statistic	*p*-value (two-tailed)
$1.00 vs. $0.50	0.529	0.597
$1.00 vs. $2.00	2.276	0.023
$1.00 vs. PWYW	2.206	0.027
$0.50 vs. $2.00	2.068	0.039
$0.50 vs. PWYW	2.068	0.039
$2.00 vs. PWYW	0.115	0.908

We can see that there are significant differences in daily donations for each of the $1.00 requested donation and the $0.50 requested in comparison to either the $2.00 requested donation or not having any requested donation. Neither the $1.00 vs. $0.50 comparison nor the $2.00 vs. PWYW comparison is significant, although the average daily donation for the $1.00 treatment is 18% higher thank the average daily donation for the $0.50 treatment.

Thus, asking $2.00 for a donation seems to be too much; at the same time, not asking at all also does poorly.

4. Conclusion

From the results of the experiment, we conclude that it is not always the best policy to ask for higher contributions. Pushing people to some degree seems to be more effective than making no suggestion, but there seems to be a point where beyond which this is counter-productive. Thus, people are indeed affected by suggestions (implicitly, social information), this effect is not monotonic with respect to the size of the suggestion.

Our results are of course only one study in this embryonic area. Nevertheless, the design of this pure field experiment is clean, and these data provide a clear picture of behavior in an environment with undeniable external validity. It is clear that much more research is needed to understand how to optimally influence charitable contributions.

References

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