



A Study of the Drivers of Non-commercial Behavior Donations to the Internet for Good Based on the Perspective of Value Co-creation

Yucan He and Fang Zou^(✉)

Business and Tourism School, Sichuan Agricultural University, Construction Road, Dujiangyan, Sichuan, China
503061751@qq.com

Abstract. By leveraging the technological and digital strengths of Internet companies, Internet for Good enables public interest organisations to better explore and promote their projects, connect with a wider range of users, increase transparency in their operations, and solve the problem of “trust” and increase the recognition of social values. And the public’s use of non-commercial actions to leverage corporate donations for charity is attracting wider public participation——this participation model is a kind of value creation. This paper explores the impact of psychological distance and self-efficacy on public participation as a non-commercial contribution using independent sample t-tests and two-factor ANOVA analysis in conjunction with psychological distance theory and software such as SPSS. The results show that the closer the individual perceives the spatial distance and social distance, the stronger the willingness to make non-commercial behavior donation; Time distance and hypothesis have no significant impact on the willingness of non-commercial behavior donation; Individual self-efficacy plays a regulatory role in the impact of spatial distance and social distance on non-commercial donation behavior.

Keywords: Psychological distance · Public non-commercial behavior donation · Value co-creation · Self-efficacy

1 Introduction

With the development of the internet and the growing awareness of corporate social responsibility and citizenship, corporate online philanthropy has grown significantly in recent years. Unlike traditional philanthropy, non-commercial behavior donations are made by platforms that first set rules and motivate the public to act in a green and low-carbon way, which are then quantified and matched with material donations by the sponsoring organizations. In this model of value co-creation, the role and value of the public cannot be ignored, and the resulting drive for non-commercial behavior contributions from the public is particularly important.

Contrary to the practice, academic research on online charity has lagged behind. This paper will delve into the influence of psychological factors on the public’s non-commercial behavior donation, starting from the perspective of value co-creation.

2 Relevant Literature and Research Hypothesis

2.1 Hypothesis of the Direct Effect of Psychological Distance on Non-commercial Behavior Donations

The individual develops a subjective perception called psychological distance, an ‘egocentric’ concept, when approaching an event or moving away from a reference point [10].

The idea of value co-creation originates from the concept of co-production proposed by Norman and Ramirez (1993).

In the case of non-commercial behavior donations, the public directly determines whether the event goes ahead and how much money the company ultimately donates. The value of the experience gained by the public, the reputation gained by the company and the funding received by the recipient are co-created by the public and the company, so this paper uses Prahalad and Ramaswamy’s argument to define public participation in corporate giving as value co-creation [9].

Evolutionary theory suggests that individuals tend to perform more charitable acts towards people who are closer to them [4]. And research on moral regulation has also suggested that individuals will behave differently morally towards objects of different psychological distance [2]. In short, individuals generally perform more charitable acts to those who are closer psychologically, which means that psychological distance is a driving force for the public when it comes to non-commercial behavior donations. Previous research has pointed out that psychological distance has four dimensions: time distance, spatial distance, social distance and hypotheticality [1].

Therefore, the following hypothesis is formulated.

H1: Time distance has a positive moderating effect on non-commercial behavior donations.

H2: Spatial distance has a positive moderating effect on non-commercial behavior donations.

H3: Social distance has a positive moderating effect on non-commercial behavior donations.

H4: Hypotheticality has a positive moderating effect on non-commercial behavior donations.

2.2 Moderating Effects of Self-efficacy Hypothesis

People make judgments about the organization and ability to perform the required course of action before they are to accomplish a set behavioral goal, and the results of these judgments are known as self-efficacy [1]. Generally speaking, people with high self-efficacy have a good expectation of their contribution to the activity they are involved in, so they will actively engage in the activity to accomplish the set goal [7].

Self-efficacy has been shown to increase customers’ willingness to engage in value co-creation activities in both offline and online contexts [6, 10]. Therefore, the following hypothesis is proposed in this paper.

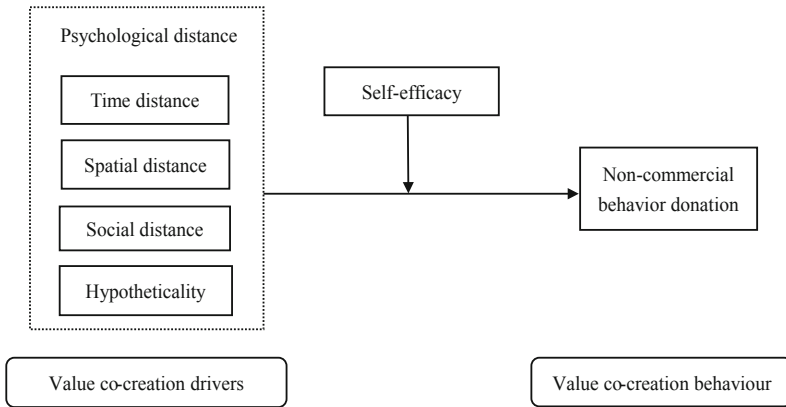


Fig. 1. Study model

H5: Self-efficacy plays a positive moderating role in the relationship between the influence of psychological distance on the public's non-commercial behavior donations.

In summary, the research model for this paper is shown in Fig. 1.

3 Study Design and Analysis of Results

This paper uses a series of four experiments to test the hypotheses: Experiment 1 aims to explore the effect of time distance on non-commercial behavior donations by the public and the moderating effect of self-efficacy in the perspective of value co-creation, i.e. hypotheses H1 and H5. Experiments 2, 3 and 4 explore the effect of spatial distance, social distance and hypotheticality on non-commercial behavior donations and the moderating effect of self-efficacy respectively, i.e. hypotheses H2, H3, H4, and H5.

3.1 Experimental Design

Experiment 1 used a 2 (self-efficacy: high vs. low) \times 2 (time distance: close vs. far) between-group design. The final valid sample was 158, of which 56 (35.4%) were male and 102 (64.6%) were female.

Experiment 2 used a 2 (self-efficacy: high vs. low) \times 2 (spatial distance: close vs. far) between-group design. The final valid sample was 176, of which 64 (36.4%) were male and 112 (63.6%) were female.

Experiment 3 used a 2 (self-efficacy: high vs. low) \times 2 (social distance: close vs. far) between-group design. The final valid sample was 164, of which 65 (39.6%) were male and 99 (60.4%) were female; the age range was from 18 to 60 years old.

Experiment 4 used a 2 (self-efficacy: high vs. low) \times 2 (hypotheticality: large vs. small) between-group design. The final valid sample was 162, of which 89 (54.9%) were male and 73 (45.1%) were female.

3.2 Experimental Procedure

All subjects first filled in the demographic variables and self-efficacy scales [3, 11], and those with scores above the norm were used as the “high self-efficacy” group, while those with scores below the norm were used as the “low self-efficacy” group. In order to allow subjects who had not been exposed to non-commercial behavior donations to conduct the experiment successfully, all subjects were then asked to read a piece of material introducing non-commercial behavior donations. After reading the material, the subjects were divided into two groups, “close distance” and “far distance”, according to their month of birth.

In the close distance scenario, subjects were told that the time of the disaster was last week/the recipient was located in the southern part of their province/they had seen the project through a friend’s referral and that the friend’s immediate family member was one of the project recipients/the project was helping a disaster area that had been covered in the media in recent days; in the far time distance scenario, subjects were told that the time of the disaster was last year/the recipient was located in the Caribbean/they had seen the project by chance while browsing the web and that they did not have any family members or friends living in the affected area/the money from the project would be used as a relief fund to help in the event of future floods in area B (which had been affected by floods every year in the past).

After reading the material, subjects were asked about perceived time distance from the recipient [5] and willingness to donate. All measured question items were on a five-point scale (1 = strongly disagree, 5 = strongly agree).

3.3 Experiment Results and Analysis

Before conducting hypothesis testing, the experimental questionnaires were first subjected to reliability analysis and manipulation tests. The results of the reliability test showed that the Cronbach’s α coefficient values of the scales were 0.767 for the self-efficacy scale, 0.657 for the time distance scale, 0.788 for the spatial distance scale, 0.824 for the social distance scale, 0.669 for the hypothetical scale and 0.784 for the non-commercial behavior donation scale, which proved that the scales had good reliability.

Manipulation test. A one-way ANOVA analysis of the results of the time distance test showed that subjects at close time distance perceived the time distance between the recipient and themselves to be significantly closer than those at far time distance ($M_C = 2.048$, $SD_C = 0.6727$; $M_F = 3.212$, $SD_F = 0.7294$; $F(1,156) = 107.391$, $p < 0.001$), indicating the success of the manipulation of time distance in Experiment 1. An independent samples t-test was used to analyze the difference in self-efficacy scale scores between the two groups, and the results revealed a significant difference ($t = -17.316$, $P < 0.001$) between the high self-efficacy group ($M = 4.5411$, $SD = 0.25005$) and the low self-efficacy group ($M = 3.5529$, $SD = 0.45167$). A one-way ANOVA with time distance as the independent variable and non-commercial behavior donations as the dependent variable showed no significant difference in non-commercial behavior donations between the close time distance group and the far time distance group

($M_C = 3.8950$, $SD_C = 0.73886$; $M_F = 3.7059$, $SD_F = 0.81066$; $F(1,156) = 2.318$, $p = 0.130$). $P = 0.130$), so H1 cannot be accepted.

A one-way ANOVA analysis of the results of the spatial distance test showed that subjects who were at close spatial distance perceived the spatial distance between the recipient and themselves to be significantly closer than those who were at far spatial distance ($M_C = 1.9205$, $SD_C = 0.79106$; $M_F = 3.5966$, $SD_F = 0.90610$; $F(1,174) = 170.880$, $p < 0.001$), indicating the success of the manipulation of spatial distance in Experiment 2. An independent samples t-test was used to analyze the difference in self-efficacy scale scores between the two groups, and the results revealed a significant difference ($t = 21.098$, $P < 0.001$) between the high self-efficacy group ($M = 4.544$, $SD = 0.251$) and the low self-efficacy group ($M = 3.629$, $SD = 0.322$). An independent samples t-test with spatial distance as the independent variable and non-commercial behavior donations as the dependent variable showed that spatial distance influenced donors' non-commercial behavior donations ($M_C = 4.36$, $M_F = 3.82$, $t(155.226) = 6.236$, $p < 0.001$), i.e. close spatial distance compared to far spatial distance increased the public's willingness to engage in non-commercial behavior donations, H2 was verified.

A one-way ANOVA analysis of the results of the social distance test showed that subjects who were at close social distance perceived the social distance between the recipient and themselves to be significantly closer than those who were at far social distance ($M_C = 1.58$, $SD_C = 0.502$; $M_F = 2.55$, $SD_F = 0.937$; $F(1,162) = 69.753$, $p < 0.001$), indicating the success of the manipulation of social distance in Experiment 3. An independent samples t-test was used to analyze the difference in self-efficacy scale scores between the two groups, and the results revealed a significant difference ($t = -16.201$, $P < 0.001$) between the high self-efficacy group ($M = 4.86$, $SD = 0.218$) and the low self-efficacy group ($M = 3.63$, $SD = 0.641$). An independent samples t-test with social distance as the independent variable and non-commercial behavior donations as the dependent variable showed that social distance influenced donors' non-commercial behavior donations ($M_C = 4.38$, $M_F = 3.71$, $t(110.999) = 6.600$, $p < 0.001$), i.e. close social distance compared to far social distance increased the public's willingness to engage in non-commercial behavior donations, H3 was verified.

A one-way ANOVA analysis of the hypothetical test results showed that the hypothesis that recipients were affected by the disaster was significantly greater for subjects in the high hypothesis than for those in the low hypothesis ($M_H = 1.767$, $SD_H = 0.764$; $M_L = 3.288$, $SD_L = 0.736$; $F(1,160) = 7,269$, $p < 0.001$), indicating that the success of the manipulation of hypothesis in Experiment 4. An independent samples t-test was used to analyze the difference in self-efficacy scale scores between the two groups, and the results revealed a significant difference ($t = -8.643$, $P < 0.001$) between the high self-efficacy group ($M = 4.6638$, $SD = 0.214$) and the low self-efficacy group ($M = 3.9274$, $SD = 0.409$). A one-way ANOVA with hypothesis as the independent variable and non-commercial behavior donations as the dependent variable showed no significant difference in non-commercial behavior donations between subjects with high hypothesis and those with low hypothesis ($M_H = 3.9083$, $SD_H = 0.751$; $M_L = 3.9083$, $SD_L = 0.797$; $F(1,160) = 0.563$, $p = 0.821$), so H4 cannot be accepted.

In Experiment 2, the independent variable spatial distance and the moderating variable self-efficacy were both categorical variables and were tested for moderating effects

using two-way ANOVA analysis. The interaction effect of spatial distance and self-efficacy on non-commercial behavior donations was significant ($F(3, 172) = 28.933, p < 0.001$), while the main effect of spatial distance on non-commercial behavior donations was significant ($F(3, 172) = 33.659, p < 0.001$) and the main effect of self-efficacy on non-commercial behavior donations was not significant ($F(3, 172) = 0.122, p > 0.05$). H5 was validated by the fact that subjects with high self-efficacy were more willing to engage in non-commercial behavior donations in both spatial distance scenarios ($M_C = 4.48, M_F = 4.03$) than those with low self-efficacy ($M_C = 4.07, M_F = 3.56$), indicating that self-efficacy significantly moderated the effect of spatial distance on non-commercial behavior donations.

A two-factor ANOVA analysis was used to test for moderating effects and found that the interaction effect of social distance and self-efficacy on non-commercial behavior donations was significant ($F(3, 160) = 24.296, p < 0.001$), while the main effect of social distance on non-commercial behavior donations was significant ($F(3, 160) = 12.869, p < 0.001$) and the main effect of self-efficacy on non-commercial behavior donations was not significant ($F(3, 160) = 3.924, p > 0.05$). H5 was validated by the fact that subjects with high self-efficacy were more willing to engage in non-commercial behavior donations in both social distance scenarios ($M_C = 4.48, M_F = 4.03$) than those with low self-efficacy ($M_C = 4.45, M_F = 4.28$), indicating that self-efficacy significantly moderated the effect of social distance on non-commercial behavior donations.

4 Research Conclusions and Discussion

4.1 Research Findings

Based on the theory of psychological distance and self-efficacy, this paper explored and verified the effects of four dimensions of psychological distance (time distance, spatial distance, social distance and hypotheticality) on public non-commercial behavior donations and the moderating role of individual self-efficacy in them. Experiments 1, 2, 3 and 4 found that spatial and social distance increased public non-commercial behavior donations; time distance and hypotheticality did not affect public non-commercial behavior donations. The reason for this is that research has shown that it is spatial distance and social distance that best reflect the degree of psychological proximity that individuals perceive with others [7]. Further analysis of the data from Experiments 2 and 3 revealed that individual self-efficacy significantly moderated the effect of psychological distance on non-commercial behavior donations: individuals with high self-efficacy showed a higher willingness to co-create values in both close and far psychological distance situations compared to individuals with low self-efficacy.

4.2 Significance of the Study and Outlook

The theoretical contributions of this paper include: (1) Although many articles in the field of charitable giving have focused on projects such as Ant Forest and Alipay's "Walking Donation", they have not provided a definition of these methods, but this paper is the first to define the above-mentioned public donation methods as "non-commercial behavior

donations” (2) This paper examines the impact of psychological distance on public non-commercial behavior donation in the context of psychological distance theory, a factor that has not been addressed in previous research. (3) Combining cognitive theory, this paper is the first to explore the moderating role of self-efficacy in individuals’ charitable behavior, enriching related research.

The paper has important implications for companies’ non-commercial donation activities: (1) As the public’s perceived psychological distance can effectively increase their willingness to co-create values, companies should be more targeted when disseminating activity information. (2) Since individuals with a higher sense of self-efficacy are more willing to participate in value co-creation when they are at the same psychological distance, companies can take measures to stimulate the self-efficacy of potential recipients.

Limitations and future research directions: (1) the existing experiments in this paper all tested the subjects’ intention to donate, but in the future, we may consider testing the actual donation behavior. (2) Each experiment in this paper only focused on a single dimension of psychological distance, and the interaction effects of multiple dimensions on non-commercial behavior donation could be explored in the future.

References

1. Bandura A (1986) Social foundations of thought and action. *J Appl Psychol* 12(1):169
2. Conway P, Peetz J (2012) When does feeling moral actually make you a better person? Conceptual abstraction moderates whether past moral deeds motivate consistency or compensatory behavior. *Pers Soc Psychol Bull* 38(7):907–919
3. Chen G, Gully SM, Eden D (2001) Validation of a new general self-efficacy scale. *Organ Res Methods* 4(1):62–83
4. Myers D (2010) Social psychology (8th ed.). In: Zhang Z, Le G, Hou Y, et al (eds) *People’s Post and Telecommunications Publishing House*, Beijing, pp 349–358
5. Dubois D, Andrea B, Angelis MD (2016) Sharing with friends versus strangers: how interpersonal closeness influences word-of-mouth valence. *J Mark Res* 53(5):712–727
6. Im J, Qu H (2017) Drivers and resources of customer co-creation: a scenario-based case in the restaurant industry. *Int J Hosp Manag* 64:31–40
7. Liu X, Zhang H, Wang L. Compassionate or charitable? The interactive effects of recipient distress valence and psychological distance on willingness to donate [J/OL]. *Nankai Manag Rev* 1–33
8. Liu X (2020) Research on the influence of customers’ perceived value on their value co-creation behavior in the context of sharing economy. Shanghai University
9. Prahalad CK, Ramaswamy V (2004) Co-creation experiences: the next practice in value creation. *J Interact Mark*
10. Trope Y, Liberman N (2010) Construal-level theory of psychological distance. *Psychol Rev* 117(2):440–463
11. Zhao Y, Chen Y, Zhou R et al (2018) Factors influencing customers’ willingness to participate in virtual brand community’s value co-creation: the moderating effect of customer involvement. *Online Inf Rev* 43(3):440–461

Open Access This chapter is licensed under the terms of the Creative Commons Attribution-NonCommercial 4.0 International License (<http://creativecommons.org/licenses/by-nc/4.0/>), which permits any noncommercial use, sharing, adaptation, distribution and reproduction in any medium or format, as long as you give appropriate credit to the original author(s) and the source, provide a link to the Creative Commons license and indicate if changes were made.

The images or other third party material in this chapter are included in the chapter's Creative Commons license, unless indicated otherwise in a credit line to the material. If material is not included in the chapter's Creative Commons license and your intended use is not permitted by statutory regulation or exceeds the permitted use, you will need to obtain permission directly from the copyright holder.

