Donors' Giving Decisions Toward Nonprofit Commercialization: Do Commercial Form and Intensity Matter?

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Abstract

Commercialization is an established yet contested practice in the nonprofit sphere. Whereas proponents point to increased financial stability, others warn about crowding out of individual donations. This ambiguity raises the question: Under which configuration is nonprofit commercialization (un)likely to uphold the promise of financial stability? Drawing on institutional theory, we conduct a survey experiment with U.S.-based individuals (N = 1,031) to examine the impact of nonprofit commercialization form (i.e., commercialization of core/ancillary activities) and intensity on individual donation likelihood. Contrary to our theoretical expectations, we find that individual donors (a) prefer commercial ancillary activities over commercial core activities, and (b) are not negatively affected by high levels of commercial income. This study advances our understanding of how nonprofit commercialization affects donors' giving likelihood. This study also offers guidance to nonprofit practitioners on how to commercialize for better financial health.

Keywords Nonprofit commercialization; individual donors; context; institutional theory; giving; philanthropy

1. Introduction

Nonprofit organizations (NPOs) cannot fulfill their missions without sufficient resources. NPOs have a variety of ways to generate revenue (Froelich, 1999; Hung & Hager, 2019), including private donations, government funding, and commercial revenue. It has been argued that NPOs across the world have become more commercial, increasingly relying on the sale of services and products (e.g., Brown, 2018; Salamon, 1993). Nonprofits can commercialize core activities by charging service fees, or commercialize ancillary activities by selling items such as candy, wine, and T-shirts to subsidize unprofitable core activities (Weisbrod, 2000). Commonly referred to as nonprofit commercialization (Maier, Meyer, & Steinbereithner, 2016), this trend is typically portrayed as a double-edged sword. Whereas many scholars warn that commercialization erodes nonprofits' prosocial value characteristics (e.g., Eikenberry & Kluver, 2004; Frumkin & Andre-Clark, 2000) and discourages nonprofit engagement in policy advocacy (Dong, Lu, & Lee, 2022), others argue that commercialization can contribute to efficiency (Hung & Berrett, 2022) and bolster NPOs' financial stability by means of revenue diversification (Froelich, 1999) and cross-subsidization (Guo, 2006).

The debate over the (dis)advantages of nonprofit commercialization is especially concerned with whether commercial revenue crowds out private donations. Previous studies have produced inconsistent results. Some have reported a crowding-in effect (Okten & Weisbrod, 2000; Wicker, Breuer, & Hennigs, 2012), others a crowding-out effect (Kingma, 1995; Yetman & Yetman, 2003). A recent meta-analysis by Hung (2020) discusses the underlying mechanisms of these effects. It argues that the crowding-in effect occurs when commercialization brings NPOs more flexibility in allocating spending to fundraising events (Froelich, 1999) or makes NPOs more efficient in managing their fundraising expenses (Ecer, Magro, & Sarpça, 2017), and when social

entrepreneurship makes NPOs more visible to potential donors (Lyons, Townsend, Sullivan, & Drago, 2010). Donors do not always consult financial data before giving (Buchheit & Parsons, 2006), but giving behaviors are affected when data are available (De Wit & Bekkers, 2017). Thus, the crowding-out effect occurs when there is a strong aversion toward nonprofit commercialization among potential donors (James, 2017), when potential donors treat their purchases of services or goods from NPOs as substitutes for private contributions (Hung & Hager, 2020), and when NPOs reduce fundraising efforts once commercial revenues are stable or predictable (Young, 2006). Analyzing previous research findings, Hung (2020) finds that commercial revenue crowds out private donations, albeit to a moderate degree. Hence, commercial revenue may crowd out private donations under most, but not all, conditions. Furthermore, Lee, Lu, and Shon (2021) study arts and culture NPOs, finding a curvilinear association that a low level of commercial revenue crowds in private donations whereas a commercial revenue ratio of more than 25% crowds out private donations. Taken together, these findings suggest that "*nonprofit commercialization is more a question of how rather than whether*" (Hung, 2020, p.287).

Nevertheless, few insights to date reveal under what configuration nonprofit commercialization is (un)likely to crowd in private donations. This is surprising, given that commercialization is a reality for many NPOs (see e.g., Brown, 2018; Hung, 2020; Khieng & Dahles, 2015; McKay, Moro, Teasdale, & Clifford, 2015; Salamon, 1993; Suykens, George, De Rynck, & Verschuere, 2020; Vaceková, Valentinov, & Nemec, 2017). This paper takes a first step toward addressing this issue by examining under which configuration nonprofit commercialization is likely to increase individual donation likelihood. Specifically, we focus on two key aspects of nonprofit commercialization (Gras & Mendoza-Abarca, 2014; Herman & Rendina, 2001; Smith, Cronley, & Barr, 2012), asking:

*To what extent does the **form** (i.e., commercialization of core/ancillary activities) and **intensity** of nonprofit commercialization impact individual donation likelihood?*

To shed light on this issue, we conducted a pre-registered survey experiment with 1,031 U.S.-based individuals. The United States constitutes a particularly salient research context, as U.S.-based NPOs have long relied on commercial income (Brown, 2018; Kerlin & Pollak, 2011; Salamon, 1993). Moreover, this study focuses on individual donors because they constitute a primary source of private contributions in the U.S. (Giving USA, 2022). In our experiment, participants were asked to read a call for support from the fictitious forest conservation NPO "GreenForest." Varying degrees of information were given on the form (i.e., commercialization of core/ancillary activities) and/or intensity (i.e., high intensity) of GreenForest's commercial activity (see Figure 1). After reading the scenario, participants were asked about their giving intentions and actual giving behaviors toward GreenForest. Donation likelihood serves as a powerful — and often-used — signal of organizational legitimacy in experimental research designs (see e.g., Andersson & Self, 2015; Willems, Waldner, Dere, Matsuo, & Högy, 2017), since NPOs need to comply with donors' expectations in order to receive monetary support.

This article contributes twofold to the nonprofit management literature. It contributes to theory on the subject by further investigating which notion of legitimacy holds most explanatory power, shedding light on the crowding-in and -out effects of commercialization on private donations. This is important, as it contributes to a more situated understanding of under which configuration commercialization is (un)likely to enhance nonprofit functioning (Hung, 2020). It contributes to practice by exploring under which configuration commercial activity is (un)likely to strengthen

donative income streams, offering insights into nonprofit revenue management (Herman & Rendina, 2001). The take-home argument of our study lies in the realization that the configuration in which NPOs commercialize matters, as individual donors prefer the presence of ancillary commercial activities over both (a) the absence of commercial income, and (b) the commercialization of core activities. In the following section, we draw on institutional theory to develop our hypotheses and discuss our research design. We then present our research findings, and conclude by discussing the implications for nonprofit management theory, research and practice.

2. Nonprofit Commercialization and Donors' Reactions: An institutional perspective

Institutional theory constitutes a purposeful lens to study donors' giving decisions toward nonprofit commercialization (Zimmerman & Dart, 1998). This perspective argues that NPOs have to meet institutional values, beliefs, and expectations by reproducing system-wide social factors to obtain legitimacy, which in turn is likely to induce support among constituents for NPOs' actions (Baum & Oliver, 1991; Meyer, 2008; Zucker, 1987). Thus, in order to be supported by donors, NPOs must present themselves as 'legitimate' by understanding and reproducing donors' values, beliefs, and expectations. When it comes to nonprofit commercialization, studies have documented two conflicting manifestations of legitimacy (Zimmerman & Dart, 1998): cognitive and socio-political legitimacy. On the one hand, cognitive legitimacy "*refers to the way that certain ideas of organization and organizational practices are almost fully taken for granted and accepted as normal or correct*" (Zimmerman & Dart, 1998, p.53). Cognitive legitimacy emphasizes that it is government funding or private donations rather than commercial revenue that should fund NPOs (Weisbrod, 2000). NPOs are not businesses and should not behave business-

like. Resonating with many critical management studies, the key argument is that commercial activity erodes NPOs' contributions to society (Eikenberry, 2009; Eikenberry & Kluver, 2004; Frumkin & Andre-Clark, 2000; Hustinx & De Waele, 2015; Zimmerman & Dart, 1998). Commercial income, for instance, is linked to lower levels of (a) free access at performing arts NPOs (Hung & Berrett, 2023; Kim, Pandey, & Pandey, 2018) and (b) health service provision to disadvantaged groups (Park, Lu, & Shon, 2021). This in turn may keep individual donors from donating to commercialized NPOs. Underling this point, a recent meta-analysis by Hung (2020) shows that nonprofit commercialization is most likely to crowd out donations, albeit to a moderate extent.

Socio-political legitimacy, on the other hand, "*refers to the way that organizations conform to some prevailing social or political norms*" (Zimmerman & Dart, 1998, p.53). Here, nonprofit commercialization resonates with the rise of social entrepreneurship in the nonprofit sector (Suykens, George, et al., 2020). For instance, Dart (2004) contends that "*If business values, business models, and business language have become dominant and are the sociocultural environment's preferred modes of problem solving and preferred structures of organizing, then it follows that even social-sector organizations can be accorded legitimacy by adopting the language, goals, and structures of this ideologically ascendant form*" (p. 419). From this point of view, it is clear that commercialization is not only about pursuing earned income, but also about meeting constituents' expectations to pursue social goals in a more business-like fashion, which in turn would make constituents more likely to donate. As NPOs become more business-like, they pay more attention to concepts such as market discipline, social innovation, and cost structures (Dart, 2004; Toepler, 2006). Donors might think that NPOs are able to use fewer resources to achieve social impact when NPOs become more business-like (Ecer et al., 2017; Hung, 2020).

Coined by Andersson and Self (2015) as the social-entrepreneurship advantage, recent studies add empirical depth to this argument by observing that self-acclaimed social enterprises hold a legitimacy advantage over NPOs as these are more likely to receive financial support from public (Dey & Teasdale, 2016) and private resource holders (Willems et al., 2017).

In this study, we focus on two configurational aspects of nonprofit commercialization, i.e. form and intensity. First, individual donors might react differently to different forms (i.e., core versus ancillary activities) of nonprofit commercialization. The limited available empirical evidence suggests that both adherents of social-political and cognitive legitimacy approve of commercialization of nonprofit core activities. Herman and Rendina (2001), for instance, observe that donors prefer the commercialization of core activities over the development of ancillary activities solely set up with the purpose of cross-subsidization. In a similar vein, experimental research by Smith et al. (2012) finds that the negative effect of commercial income on donation likelihood is mitigated when donors perceive commercial activity to be mission consistent. Essentially, commercialization of nonprofit core activities signals service quality: 'people are willing to pay for it, so it must be good'(Brown, 2018). Furthermore, in the U.S. context, "*commercial sources have been one of the most significant sources of funding for nonprofits since at least the 1970s*" (Child, 2010, p. 150). Implicitly, these findings suggest that often-heralded risks like mission creep – i.e., financial motives taking precedence over social goal fulfillment inducing exclusion mechanisms (e.g., Dart, 2004a; Gallet, 2016; Hustinx & De Waele, 2015) – are not (sufficiently) captured by donors, as they might be more distant to the actual service delivery efforts of the organization at hand.

Turning to commercial ancillary activities, the literature suggests that donors are more critical. Commercial side activities like selling T-shirts, raffle tickets, wine, candy and so forth might come

across as a distraction away from the prosocial goals (e.g., Suykens, George, et al., 2020; Weisbrod, 2000). Unlike the commercialization of nonprofit core-activities, this dynamic is visibly discernible from core activities, which may facilitate the critical question whether NPOs should engage in commercial side gigs at all. Whereas this seemingly dominant critical perspective resonates with the cognitive legitimacy baseline, adherents of social-political legitimacy are likely to point – again – to the financial upside of such endeavors. Commercial side schemes are equally equipped to strengthen NPOs' financial stability by means of revenue diversification (Froelich, 1999) and cross-subsidization (Guo, 2006). On the whole, taking the existing literature and the particularities of the U.S. context into account, we hypothesize that:

H1. Individual donation likelihood is likely to (a) increase when nonprofits generate core activity income, and (b) decrease when nonprofits generate ancillary activity income.

Aside from nonprofit commercialization form, and second, donors are likely cued by the intensity to which NPOs commercialize. Essentially, even though donors may prefer commercialization of nonprofit core activities over business schemes on the side, this does not necessarily mean they would support NPOs that are highly commercialized. That is, a high level of commercialization may reverse donors' giving likelihood with regard to NPOs that commercialize their key activities. In the case where nonprofits develop commercial ancillary activities, a high level of commercialization may further steer donors away. A recent study by Lee et al. (2021) provides evidence for this line of argument. Examining arts and culture NPOs, they find a curvilinear relationship between commercialization and private donations, situating the turn-over between crowding-in and crowding out of private donations around 25% dependence on commercial

income. In a similar vein, Gras and Mendoza-Abarca (2014) argue that commercialization is only likely to strengthen NPOs' financial stability – and thus, organizational survival – up to a certain extent (Gras & Mendoza-Abarca, 2014). Drawing on the metaphor of Icarus, they find that the competitive advantage of resource diversification through commercialization is nullified when generating more than half of the organizational income via commercial activities. Two distinct mechanisms might be at play here. First, high dependency on commercial income might signal to potential donors that their donation is no(t) (longer) needed; the organization at hand is financially able to stand on its own feet. Second, and more problematic, high dependency on commercial might equally signal that financial motives are taking precedence over the prosocial agenda. This resonates with the critique that commercialization contributes to NPOs' losing their soul by drifting away from their prosocial underpinnings (e.g., Eikenberry, 2009; Eikenberry & Kluver, 2004). Hence, although adherents of cognitive legitimacy advocate for no or limited commercialization, it is important to note that also social-political legitimacy does not stand for unbridled commercialization. For these reasons, we hypothesize that

H2. High dependence on commercial income decreases individual donation likelihood to both commercialized nonprofit (a) core activities, and (b) ancillary activities.

3. Methods

3.1. Data collection, experimental design & independent variables

Our study employs a pre-registered[i] between-subject experiment to understand individual donors' giving likelihood towards nonprofit commercialization. In the spring of 2021, we surveyed 1,097 U.S.-based individuals via the crowdsourcing platform Prolific. Contrasting with others, this

platform offers clear guidelines on the rights, duties and compensation of participants[ii], which is a requirement for the validity of research results (Palan & Schitter, 2018). Moreover, a study finds that participants on Prolific are more naïve and less dishonest than those on MTurk, which suggests that Prolific produces better data quality (Peer, Brandimarte, Samat, & Acquisti, 2017). After closing our survey experiment, we excluded respondents who (a) needed a completion time over 30 minutes (7 respondents) as the average time to complete the survey was 8 minutes and 29 seconds, and (b) displayed duplicate identification numbers (50 respondents)[iii]. Given that the projected completion time was estimated at ten minutes, a completion time over 30 minutes suggests that respondents were likely distracted by other activities (Chandler, Mueller, & Paolacci, 2014). In a similar vein, identical identification indicates that the same respondent filled in the survey more than once. Moreover, we excluded respondents who disagreed that we used their survey data (9 respondents). Taken together, this resulted in a final sample of 1,031, which suffices to detect an effect size of f=.11 across five conditions at α = .05, and a power of .08.[iv]

After some introductory questions, respondents were presented with a solicitation letter from the fictitious environment, more specifically forest conservation, initiative 'GreenForest'. Commercial revenue has become an important source of income to many environmental NPOs in the U.S. Looking at the National Center for Charitable Statistics (NCCS) 2019 Core Files database, we learn that 81.44% of environmental NPOs generate commercial income, with the average ratio of commercial revenue to total revenue among said NPOs is 39.13% while the ratio of contributions is 24.05%.[v] Within the environmental field of activity, our focus on forest conservation was not arbitrary. Contrasting with the politicized climate change debate (Poortinga, Whitmarsh, Steg, Böhm, & Fisher, 2019), forest conservation in itself – without any explicit reference to climate change – arguably constitutes a more neutral scenario. Moreover, compared

to other types of environment NPOs, conservation NPOs rely more on member and private donations (e.g., think of the organization 'Ducks Unlimited'). They are thus an exemplar for the study of donors' reactions to nonprofit commercialization. In a similar vein, the use of a fictitious organization over an existing nonprofit initiative avoids contamination by respondents' prior knowledge on conservation NPOs (Coleman, 2018).

The scenario consisted of two sections: (a) a brief impression of the main organizational goals, and (b) additional information on the treatments (see Figure 1). Following the conceptualizations of previous research (see e.g., Herman & Rendina, 2001; Suykens, George, et al., 2020; Toepler, 2006; Weisbrod, 2000), we added information on the presence of a *core*- (i.e., a service-fee based training course) or *ancillary* commercial activity (i.e., sales of coffee, wine and candy bars) to the baseline scenario.

To test whether the intensity of nonprofit commercialization negatively impacts the relationships as theorized by hypothesis 2, we added that the revenue generated through commercial activity amounted 50% of the annual organizational income. Although individual donors do not necessarily look up NPOs' financial data before making giving decisions (Buchheit & Parsons, 2006), several studies do find evidence that individual donors react to financial information when the information is given to them (Herman & Rendina, 2001). Several arguments underly our choice for 50% dependence as our intensity treatment. First, analysis of the NCCS data learns that this is above the average for the forest conservation NPOs subsector. Second, nonprofit management studies increasingly report that nonprofit commercialization is susceptible to a too much of a good thing effect (Suykens, Maier, Meyer, & Verschuere, 2022). Essentially, nonprofit commercialization can increase organizational survival- (Gras & Mendoza-Abarca, 2014) and donation likelihood up to a certain tipping point (Lee et al., 2021). When passed, nonprofit commercialization is actually

associated with increased chance of organizational demise and crowding-out mechanisms. These tipping points generally do not exceed 50% dependence (Gras & Mendoza-Abarca, 2014; Lee et al., 2021).

Consequently, our experiment contained five distinct scenarios. Group 1 served as the control group, as they only were provided with basic information on the organization. Group 2 and 3 were provided with information on the form of nonprofit commercialization in addition to the basic information. Lastly, Group 4 and 5 received an identical scenario as respectively Group 2 and 3, with the difference that they also learned that organizational dependence on commercial income was high.

<Figure 1 Here>

Respondents were equally distributed over the five groups. To check randomization, we checked the distribution of the following demographic characteristics: participants' age, gender, educational attainment, race, religiosity, work experience, volunteer and giving experience, household income, marital status, and children (Lwin, Phau, & Lim, 2014; Robson & Hart, 2021). The results showed that the means among the experimental conditions are similar for all of the demographic variables except the number of children, $\chi 2(4) = 13.16$, $p = 0.01$ (See Table 1). Hence, we included the number of children in our regression model as a robustness check to examine if its inclusion affected the results. The results show that this was not the case.

<Table 1 Here>

3.2. Dependent variable

Our dependent variable is individual donor giving likelihood. We measure this by progressively gauging the respondents' giving intention and behavior. In the following order, we asked the respondents (a) whether he/she would be willing to donate to GreenForest (yes/no), (b) how much he/she would donate from an imaginary $100 (0-100), (c) whether he/she would be willing to donate from their own wallet (6-point ordinal scale, ranging from 'no' to 'yes, over $100'), (d) whether he/she would be willing to donate monthly from their own wallet (6-point ordinal scale ranging from 'no' to 'yes, over $100'), and ultimately (e), to what percentage he/she would be willing to donate the monetary reward tied to survey participation to GreenForest (%) (Table 2). Descriptive analysis shows that the more 'real' the asked donation becomes, the less likely that respondents were willing to donate (a substantial sum).

<Table 2 Here>

3.3. Manipulation checks

We conducted three manipulation checks. First, we asked respondents what kind of services is GreenForest offering, followed by the questions: "which business activities is GreenForest running?", and "how much revenue do GreenForest's business activities generate on average?". Respondents' responses had to match the treatment used to pass the manipulation checks. The vast majority of participants pass our manipulation checks, indicating that the treatments worked (See the pass numbers and rates in Table 3).

<Table 3 Here>

The participants who did not pass the manipulation checks very likely did not receive the treatment. In the result section, we first tested the hypotheses for the full sample. We then checked in the robustness check section to see if our results held when those responses that failed the manipulation checks were excluded.

4. Results.

The Effect of Nonprofit Commercialization on Donors' Giving Decisions

The participants of this study on average were 32.39 years old. 49.90% of the participants were male while 50.10% were female. 54.12% of the participants had a college degree and above. 64.79% of the participants were Caucasian/White, followed by Asian American, Latino(a)/Hispanic, and African American/Black. 20.37% of the participants ever worked in a NPO for pay. 58.49% of the participants never attended religious services. 24.54% of the participants ever volunteered for an NPO in the past 12 months. 61.01% of the participants ever made a charitable donation to an NPO. Around the half of the participants' annual household income was below $60,000. 37.24% of the participants were married or in a domestic partnership. Finally, 74.15% of the participants had no children.

Depending on the nature of the dependent variable, we used binary, ordinal or linear regression analysis to test our hypotheses. In specific, we adopted a block-wise approach. In a first model, we only considered the experimental conditions. Subsequently, we added the number of children as a covariate for the second model since it failed the randomization checks, and ultimately the covariates such as age, race, and giving in the past 12 months were added to the regression analyses for the third model because these covariates statistically significantly affect the participants' giving behavior. On the whole, this study ran 15 regression models (3 models for 5 dependent variables).

However, as the results are consistent across the three models, we report the results from the third model for the purpose of presentation clarity. The independent variables in the regression models were not highly correlated as there was no variance inflation factor greater than 1.02.

To test Hypothesis H1(a) and Hypothesis H1(b), we started by comparing the core activity condition to the control condition using regression analyses, we observed no change in donative likelihood when NPOs generated core activity commercial income. The only exception was the result from the regression model that test the first, and most general, dependent variable asking participants if they were willing to donate to GreenForest (yes/no). Here, we found that individual donations decrease, rather than increase, when NPOs generated core activity commercial income (Table 4).

Second, we compared the ancillary activity condition to the control condition. Our results showed that individual donations increased when nonprofits generated ancillary activity commercial income, compared to when nonprofits had no commercial income (Table 4). The effect sizes on this comparison fell between .12 to .21. Overall, the magnitude of the difference between the two groups was not large.

<Table 4 Here>

The results from the above examinations implied that individual donors preferred ancillary commercial activity over core commercial activity. Verifying this, we used regression models to compare the giving likelihood of participants assigned to the core activity condition with that of participants assigned to the ancillary activity condition. Thus, in terms of nonprofit commercialization *form*, we found that respondents preferred ancillary commercial activity over

core commercial activity when asked if (a) they were willing to donate to GreenForest (yes/no), (b) they had an imaginary $100 dollars to spend, and (c) they were willing to make a charitable donation to GreenForest using money from their own wallets. There was no significant giving difference between the core and ancillary commercial activity when the respondents were asked to make a monthly recurring donation to GreenForest from their own wallet and make a donation to GreenForest using their experiment compensation (Table 5). The effect sizes on the first three dependent variables were not small. They fell between .22 to .46. The effect sizes on the last two dependent variables were smaller. They were .07 when the respondents were asked to make a monthly recurring donation to GreenForest from their own wallet and .15 when the respondents were asked to make a donation to GreenForest using their experiment compensation. Overall, our results did not support H1(a) and H1(b).

<Table 5 Here>

To test Hypothesis H2(a) and H2(b), we compared the groups with high intensity of commercial revenue information with the groups without high intensity of commercial revenue information. The results from our regression analyses showed that high dependence on commercial income information did not change individual donation likelihood in the case of core commercial activity. The only exception was the result from the regression models that test the first dependent variable asking participants if they were willing to donate to GreenForest. However, on this dependent variable, this study found that the high dependence information increases individual donation likelihood to core commercial activity (Table 6). Overall, our results did not support Hypothesis H2(a). Moreover, the results from our regression analyses showed that the high dependence

information was yet again unrelated to individual donation likelihood in the case of ancillary commercial activity (Table 7). Thus, our results did not support Hypothesis H2(b) either. Table 8 summarized the results of the regression analyses, and Table 9 converted the results into effect sizes.

<Table 6 Here>

<Table 7 Here>

<Table 8 Here>

<Table 9 Here>

Robustness Checks

The purpose of the manipulation checks is to confirm that experiment participants comprehend the information studies deliver. In this robustness check, this study removed those responses that failed the manipulation checks to test if the results persisted. There were 15 participants that failed the manipulation question asking them what kind of services GreenForest provided. 92 participants failed the questions regarding the business activities GreenForest was running, as well as 92 participants failed the questions regarding how much revenue GreenForest was generating through said activities. There were some overlaps among the wrong responses of the three manipulation questions. This study eventually removed 150 participants who failed the manipulation test from the data and conduced the regression analysis on the sample size of 881 responses. The results were consistent with that from the full sample albeit coefficients and *p* values on some variables slightly changed.

Our second robustness check was to conduct Kruskal-Wallis and Dunn's tests to examine if the results persisted. Although two coefficients in Table 4 turned nonsignificant and one coefficient in Table 6 turned marginally significant, the changes did not affect the conclusions of this study. We summarized the results of Kruskal-Wallis and Dunn's tests and highlighted the changes in bold in Table 10.

<Table 10 Here>

5. Discussion

This study examines under what configuration commercialization is most (un)likely to uphold its promise of strengthening NPOs' financial stability. In specific, we examine whether individual donors react differently to different commercialization forms and intensity. Based on regression analyses of data collected among U.S.-based individuals via a survey experiment (N = 1,031), our results indicate that individual donors prefer ancillary activity income over commercialized core activities. The intensity to which NPOs commercialize does not negatively affect individual donation likelihood. These results are unexpected, and hold several implications for nonprofit management theory and research.

First, our results run counter previous survey experiments on the impact of nonprofit commercialization on individual donation likelihood. Part of the explanation may be methodological in nature. Although common practice, earlier survey experiments relied on small-N[vi] convenience samples of volunteers (Herman & Rendina, 2001) and students (Smith et al., 2012) as surrogates for individual donors. This is questionable, as these surrogates are likely to exhibit higher levels of donative behavior (i.e., in the case of the volunteers) (Van Slyke & Johnson, 2006) and/or lower levels of socioeconomic resources (i.e., in the case of university students) in comparison to the 'average' individual donor. Hence, while useful to explore internal

validity (i.e., does this particular mechanism work in a controlled environment?), external validity (i.e., does a particular mechanism hold in the day-to-day reality?) might suffer because of it (Hooghe, Stolle, Mahéo, & Vissers, 2010).[vii]

Second, the observation that individual donors prefer the presence of commercial ancillary activities ties in with the argument drawn from socio-political legitimacy that commercialization is increasingly viewed as a legitimate practice in the nonprofit domain (Andersson & Self, 2015; Dart, 2004b; Willems et al., 2017). The overall absence of significant negative associations between nonprofit commercialization *form* and *intensity* on the one hand, and individual donation likelihood on the other hand adds to this impression, as it suggests that commercial income does not systematically impair nonprofit credibility among U.S.-based donors. That said, it may be too early to speak of a commercial turn in donors' minds. For one, contrasting with existing research (Herman & Rendina, 2001; Smith et al., 2012), donative likelihood is unaffected – and thus not positively related – by the presence of commercialized core activities. Furthermore, individual donors become less likely to donate when the giving questions asked in the survey turn more real. Although proponents of the theory of planned behavior argue that individual intention is a strong predictor of actual behavior (Ajzen, 2011), the intention-behavior gap observed here suggests that others factor are likely at play. This opens up interesting avenues for further research. For instance, future studies could examine to what extent perceived mission consistency (e.g., Smith et al., 2012), performance information (e.g., Bodem-Schroetgens & Becker, 2020) and value (in)congruence between potential donors and the organization (e.g., Bekkers & Wiepking, 2011) moderate the relationship between commercialization on the one hand, and intended/actual individual donation behavior on the other hand. More fundamentally, one could ponder to what

extent emotional decision-making plays a factor into to charitable giving. Turning to the applied psychology literature, Chang and Lee (2009, p. 2927) for instance finds that "*a charitable message that is framed negatively leads to higher advertising effectiveness than one that is framed positively*". In a different study, Chang (2008) finds that cause-related marketing is more likely to work when concerned with frivolous than practical products. Hence, a challenging hypothesis for future experimental research might be that in addition to nonprofit commercialization intensity and form, the framing used in organizational communication towards external stakeholders might be influential in individual decisions (not) to give (see e.g., Crombie, 2020).

Third, an important contextual variable to take into account may be the primary field of activity of our fictitious organization (i.e., environment). Crowding-out of private donations due to commercialization efforts have been reported for human service providers (Guo, 2006), schools (Calabrese, 2011), social enterprises (Smith et al., 2012) and arts and culture nonprofits (Lee et al., 2021). We welcome future studies that examine more systematically the relationship between commercialization and individual giving behavior across nonprofit sectors, and unravel the causal mechanisms underlying the observation sectoral variation.

Fourth, from an individual donors' perspective, the profitable sale of pens, flags, t-shirts and other goods alike may be interpreted as traditional and/or convenient fundraising efforts (Zimmerman & Dart, 1998), and thus be perceived as something that NPOs inherently 'do' (Brown, 2018; Child, 2010). In a similar vein, the fee-charging training course may have been mistakenly perceived as non-commercial in nature by our respondents. Indeed, although the research literature emphasizes that a profit motive discerns commercialization from fundraising (Guo, 2006; Suykens, George, et al., 2020; Tuckman, 1998), the distinction might not always be as clear for individual donors in day-to-day life. In hindsight, a couple of kay elements in our experimental design have escaped.

The scenarios used did not make an explicit call to donate, but rather asked for support which, pending on the manipulation, could be interpreted differently (i.e., signing up for a training, buying coffee). Furthermore, the manipulations used were not pretested, nor tested afterwards by verifying to what extent the respondents *interpreted* the manipulations as commercial activities (check 1) with a weak/strong link to the mission (check 2), and represented a weak/strong financial dependency for the organization at hand (check 3). Future research designs should incorporate these checks in order to rule out alternative interpretations of the manipulations more firmly.

In addition to nonprofit management research and theory, our findings hold relevant implications for nonprofit practitioners. However, before formulating recommendations for practice, it is important to point to the limitations of our study. For one, it is essential to emphasize that nonprofit commercialization impacts many organizational aspects (see e.g., Maier et al., 2016), of which only one is examined here in one specific context: nonprofit dependence on individual donations in a U.S.-based environmental nonprofit. This fictitious setting was chosen for both its saliency and neutrality. Future research can test whether the relationships observed hold for NPOs that are active on politicized topics such as migration and global warming. The more politicized the issue at hand, the more likely personal opinions may take precedence over the particularities of the resource mix when deciding (not) to donate. In a similar vein, we only examined the perception of one stakeholder towards nonprofit commercialization. Recent research suggests that commercialization is met with a critical attitude by stakeholders more closely involved to the day-to-day functioning of NPOs (e.g., nonprofit staff, volunteers, service recipients) (Carré et al, 2021). Future experimental research could investigate how other stakeholders react to NPO commercialization. Moreover, although we, based on the literature and theory, argued that the effect of commercialization on private donations is through legitimacy, we did not measure

perceived organizational legitimacy in this experiment. Future studies can test the underlying theoretical argument. Adding to this, and consistent with the existing literature (Herman & Rendina, 2001; Hung, 2020), our findings show that nonprofit commercialization is merely one of many factors that individual donors consider when deciding (not) to donate (i.e., low R^2's). Hence, we should be very careful to recommend NPOs to engage in ancillary income schemes, as other aspects like organizational survival (Gras & Mendoza-Abarca, 2014) and goal achievement (Thompson & Williams, 2014) might be put at risk. This in mind, some cues for nonprofit practice can be derived from this study. Most interestingly, Hung (2021, p. 8) finds that the crowding-out mechanism between commercial income and donations is in part explained by "*the organizations' reduced efforts in running fundraising activities"*. This resonates with the idea that the vast majority of NPOs cannot do it all. Due to limited professional capacity, focusing on fundraising campaigns and commercial activity presents itself as a choice – and not a combination – for many NPOs (Suykens, De Rynck, & Verschuere, 2019). In this regard, our findings tentatively suggest that ancillary commercial income is synergetic with individual donations, and thus constitutes a remedy to counteract the crowding-out dynamic between commercialization and nonprofit donations (Hung, 2020). Hence, premised on the condition that commercialization is propelled by- and perceived by all relevant stakeholders as mission consistent, it might be literally 'worth it' for nonprofit practitioners to develop their organizational capacity in order to realize this harmonious resource combination.

6. Conclusion

Despite the ever-growing research on nonprofit commercialization (Maier et al., 2016), little is known in what configuration this financial strategy is (un)likely to crowd out individual donations

(Hung, 2020). This is important, as nonprofit practitioners around the world are challenged to commercialize due to increasing resource uncertainty (e.g., Hung, 2020; Khieng & Dahles, 2015; Suykens, George, et al., 2020; Vaceková et al., 2017). Drawing on institutional theory and experimental survey data, we find that NPOs are most likely to overcome the crowding out of individual donations if they focus on ancillary business scheming. Although a valuable cue for nonprofit practitioners, we realize that this is only the tip of the iceberg. Other factors at the organizational- (e.g., task, size), sector (e.g., field of activity) and institutional level (e.g., to what extent is commercial a traditional element of the nonprofit resource mix; compare for instance Brown (2018); Suykens, De Rynck, and Verschuere (2020); Vaceková et al. (2017); Yu and Chen (2018)) arguably all impact nonprofit commercialization effectiveness. We encourage future research to examine the interrelationship between commercialization and nonprofit performance while accounting more explicitly how this relationship is impacted by contextual conditions. Doing so would produce a more situated understanding of commercialization, which in turn would lead to more usable knowledge for nonprofit practitioners (Perry, 2012).

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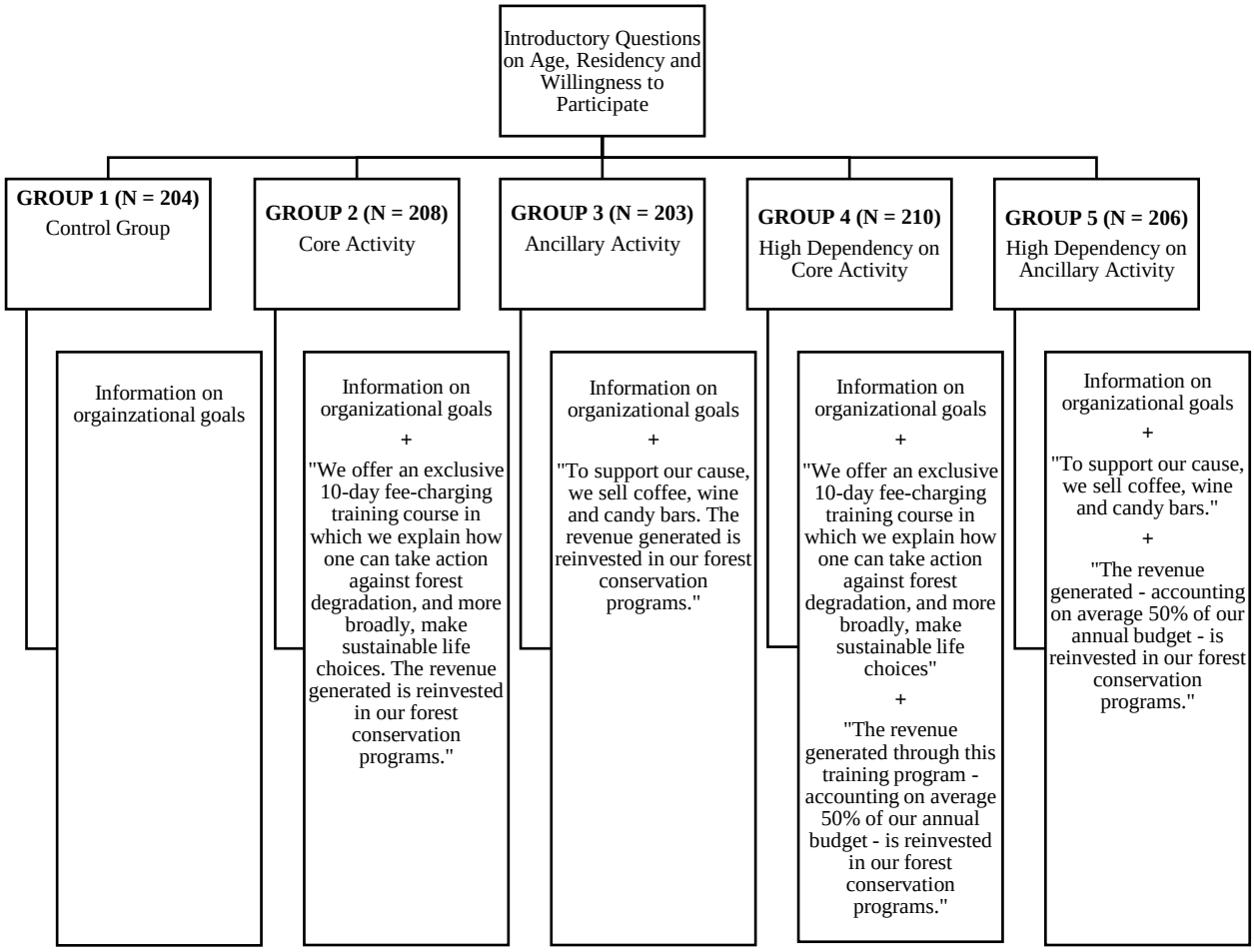
Figures

Figure 1. *Survey experiment design*



Tables

Table 1 *Randomization Checks of the Final Sample (N=1,031)*

Potential Covariates	Mean	SD	Min	Max	*p* Value
Age	32.23	11.62	18	79	.16
Gender	.51	N.A.	0	1	1.00
Education	5.26	1.37	1	8	.89
Race	N.A.	N.A.	1	9	.64
Religiosity	N.A.	N.A.	0	5	.20
Work Experience in the Nonprofit Sector	.20	N.A.	0	1	.51
Volunteer Experience in the Past 12 Months	.25	N.A.	0	1	.94
Giving Experience in the Past 12 Months	.61	N.A.	0	1	.98
Household Income	N.A.	N.A.	1	13	.89
Marital Status	.37	N.A.	0	1	.73
Children	.42	.85	0	6	.01

Note: Gender: Males = 1; Females = 0. Race: African American/Black = 69; Arab American = 4; Asian American = 158; Caucasian/White = 668; Latino(a)/Hispanic = 76; Native American or Alaska Native = 5; Native Hawaiian or other Pacific Islander = 4; Mixed Racial/Ethnic Heritage = 36; Other, please specify = 11. Religiosity: Never = 603; Once a year = 131; Several Times a year = 131; Once a month = 29; Once a week = 106; More than once a week = 31. Household Income: Less than $10,000 = 57; $10,000 - $19,999 = 77; $20,000 - $29,999 = 88; $30,000 - $39,999 = 108; $40,000 - $49,999 = 97; $50,000 - $59,999 = 97; $60,000 - $69,999 = 86; $70,000 - $79,999 = 87; $80,000 - $89,999 = 51; $90,000 - $99,999 = 70; $100,000 - $149,999 = 138; More than $150,000 = 36.

Table 2 *Descriptive Statistics for the Dependent Variables*

Dependent Variables	Mean	SD	Min	Max
1.Willing to Donate	.58	N.A.	0	1
2. How Much from an Imaginary $100	21.95	24.45	0	100
3. Willing to Donate from Their Own Wallet	1.81	.80	1	6
4. Willing to Donate Monthly from Their Own Wallet	1.26	.57	1	6
5. Percent of Experiment Compensation Willing to Donate (%)	17.35	25.31	0	100

Note: N = 1,031 Participants; We measure the third and fourth dependent variables by using an ordinal scale that indicates the amount of money participants are willing to donate (No, $0; Yes, in the range of $1-25; Yes, in the range of $26-50; Yes, in the range of $51-75; Yes, in the range of $76-100; Yes, over $100).

Table 3 *Manipulation Checks*

Questions	Pass Number	Pass Percentage
1.What kind of services is GreenForest offering?	1016	98.54
2.Which business activities is GreenForest running?	939	91.07
3. How much revenue do GreenForest's business activities generate on average?	939	91.07

Note: N = 1,031 Participants

Table 4 *Results of Regression Models Estimating the Effects of Core and Ancillary Commercial Income on Individual Donations*

Dependent Variables	(1)	(2)	(3)	(4)	(5)
Core	-.55***	-.85	-.16	.11	1.39
	(.21)	(2.26)	(.20)	(.26)	(2.28)
Ancillary	.38*	4.19*	.32*	.44*	4.72**
	(.21)	(2.37)	(.19)	(.25)	(2.46)
Age	-.02***	.03	-.02***	-.01**	.01
	(.01)	(.08)	(.01)	(.01)	(.07)
Race (ref: Caucasian/White)					
African American	.57**	-1.71	.24	.79***	-.57
	(.28)	(2.37)	(.25)	(.27)	(2.99)
Arab American	-1.69	-18.58***	-1.98*	-13.31***	-6.80
	(1.27)	(3.25)	(1.12)	(.53)	(11.1)
Asian American	.02	-.46	.06	-.13	2.42
	(.19)	(2.07)	(.17)	(.23)	(2.43)
Hispanic Americans	-.03	1.60	-.21	.37	2.00
	(.26)	(2.93)	(.23)	(.26)	(3.23)
Native American or Alaska Native	-.98	2.34	-1.26	-13.20***	-6.98
	(.99)	(12.75)	(.90)	(.49)	(8.01)
Native Hawaiian or other Pacific Islanders	.72	28.45*	2.24***	1.85***	-1.90
	(1.07)	(15.34)	(.85)	(.60)	(8.86)
Mixed Racial/Ethnic Heritage	-.10	-4.94*	.01	.08	-2.04
	(.37)	(2.92)	(.29)	(.43)	(3.55)
Others	-1.31*	-7.41	-1.15*	-.89	-7.74*
	(.78)	(5.40)	(.67)	(1.19)	(4.43)
Giving in the Past 12 Months	.86***	6.37***	.93***	.67***	10.23***
	(.14)	(1.53)	(.13)	(.17)	(1.49)
Constant	.53**	15.33***	N.A.	N.A.	10.35***
	(.27)	(3.17)			(3.28)

Note: Dependent Variables: (1) Willing to Donate (yes or no; binary; logistic regression), (2) How Much from an Imaginary $100 (from $0 to $100; continuous; ordinary least squares), (3) Willing to Donate from Their Own Wallet (from No, $0 to Yes, over $100; ordinal; ordered logistic regression), (4) Willing to Donate Monthly from Their Own Wallet (from No, $0 to Yes, over $100; ordinal; ordered logistic regression), and (5) Percent of Experiment Compensation Willing to Donate (from 0% to 100%; continuous; ordinary least squares); N = 1,031 participants; Reference group is the control group; Robust standard errors are in parentheses; * $p \leq .10$, ** $p \leq .05$, *** $p \leq .01$.

Table 5 *Results of Regression Models Comparing the Effects of Ancillary with Core Commercial Income*

Dependent Variables	(1)	(2)	(3)	(4)	(5)
Ancillary	.93***	5.03**	.48**	.33	3.33
	(.21)	(2.41)	(.20)	(.25)	(2.53)
Age	-.02***	.03	-.02***	-.01*	.01
	(.01)	(.08)	(.01)	(.01)	(.07)
Race (ref: Caucasian/White)					
African American	.57**	-1.71	.23	.79***	-.57
	(.28)	(2.36)	(.25)	(.27)	(2.99)
Arab American	-1.68	-18.58***	-1.98*	-13.31***	-6.80
	(1.27)	(3.25)	(1.12)	(.53)	(11.12)
Asian American	.02	-.46	.05	-.13	2.42
	(.19)	(2.07)	(.17)	(.23)	(2.43)
Hispanic Americans	-.03	1.60	-.20	.37	2.00
	(.26)	(2.93)	(.23)	(.25)	(3.23)
Native American or Alaska Native	-.97	2.34	-1.26	-13.20***	-6.98
	(.98)	(12.74)	(.90)	(.48)	(8.01)
Native Hawaiian or other Pacific Islanders	.72	28.45*	2.24***	1.85***	-1.90
	(1.07)	(15.33)	(.85)	(.60)	(8.86)
Mixed Racial/Ethnic Heritage	-.09	-4.94*	.01	.08	-2.04
	(.37)	(2.92)	(.29)	(.43)	(3.55)
Others	-1.31*	-7.41	-1.15*	-.89	-7.74*
	(.78)	(5.40)	(.67)	(1.19)	(4.43)
Giving in the Past 12 Months	.85***	6.36***	.93***	.67***	10.31***
	(.13)	(1.53)	(.13)	(.17)	(1.50)
Constant	-.02	14.48***	N.A.	N.A.	9.12***
	(.26)	(3.26)			(2.98)

Note: Dependent Variables: (1) Willing to Donate (yes or no; binary; logistic regression), (2) How Much from an Imaginary $100 (from $0 to $100; continuous; ordinary least squares), (3) Willing to Donate from Their Own Wallet (from No, $0 to Yes, over $100; ordinal; ordered logistic regression), (4) Willing to Donate Monthly from Their Own Wallet (from No, $0 to Yes, over $100; ordinal; ordered logistic regression), and (5) Percent of Experiment Compensation Willing to Donate (from 0% to 100%; continuous; ordinary least squares); N = 1,031 participants; Reference group is the core commercial income group; Robust standard errors are in parentheses; * $p \leq .10$, ** $p \leq .05$, *** $p \leq .01$.

Table 6 *Results of Regression Models Comparing the Effects of High Intensity Core Commercial Income with Core Commercial Income*

Dependent Variables	(1)	(2)	(3)	(4)	(5)
High Intensity Core	.50***	2.98	.15	.01	2.33
	(.20)	(2.31)	(.19)	(.25)	(2.40)
Age	-.02***	.03	-.02***	-.01**	.01
	(.01)	(.08)	(.01)	(.01)	(.07)
Race (ref: Caucasian/White)					
African American	.57**	-1.71	.24	.79***	-.57
	(.27)	(2.36)	(.25)	(.27)	(2.99)
Arab American	-1.68	-18.58***	-1.98*	-13.31***	-6.80
	(1.26)	(3.24)	(1.12)	(.53)	(11.12)
Asian American	.02	-.46	.05	-.13	2.42
	(.19)	(2.06)	(.17)	(.23)	(2.43)
Hispanic Americans	-.02	1.60	-.20	.37	2.00
	(.25)	(2.93)	(.23)	(.25)	(3.23)
Native American or Alaska Native	-.97	2.34	-1.26	-13.20***	-6.98
	(.98)	(12.74)	(.90)	(.49)	(8.01)
Native Hawaiian or other Pacific Islanders	.72	28.45*	2.24***	1.85***	-1.90
	(1.06)	(15.33)	(.85)	(.60)	(8.87)
Mixed Racial/Ethnic Heritage	-.09	-4.94*	.01	.08	-2.04
	(.37)	(2.92)	(.29)	(.43)	(8.55)
Others	-1.31*	-7.41	-1.15*	-.89	-7.74*
	(.77)	(5.40)	(.67)	(1.19)	(4.43)
Giving in the Past 12 Months	.86***	6.37***	.93***	.67***	10.31***
	(.14)	(1.53)	(.13)	(.17)	(1.50)
Constant	-.02	14.48***	N.A.	N.A.	9.12***
	(.26)	(3.26)			(2.98)

Note: Dependent Variables: (1) Willing to Donate (yes or no; binary; logistic regression), (2) How Much from an Imaginary $100 (from $0 to $100; continuous; ordinary least squares), (3) Willing to Donate from Their Own Wallet (from No, $0 to Yes, over $100; ordinal; ordered logistic regression), (4) Willing to Donate Monthly from Their Own Wallet (from No, $0 to Yes, over $100; ordinal; ordered logistic regression), and (5) Percent of Experiment Compensation Willing to Donate (from 0% to 100%; continuous; ordinary least squares); N = 1,031 participants; Reference group is the core commercial income group; Robust standard errors are in parentheses; * $p \leq .10$, ** $p \leq .05$, *** $p \leq .01$.

Table 7 *Results of Regression Models Comparing the Effects of High Intensity Ancillary Commercial Income with Ancillary Commercial Income*

Dependent Variables	(1)	(2)	(3)	(4)	(5)
High Intensity Core	-.08	.37	-.10	.07	.17
	(.22)	(2.58)	(.19)	(.23)	(2.66)
Age	-.02***	.03	-.02***	-.01**	.01
	(.01)	(.08)	(.01)	(.01)	(.07)
Race					
(ref: Caucasian/White)					
African American	.57**	-1.71	.23	.79***	-.57
	(.27)	(2.36)	(.25)	(.27)	(2.99)
Arab American	-1.68	-18.58***	-1.98*	-13.31***	-6.80
	(1.26)	(3.24)	(1.12)	(.53)	(11.12)
Asian American	.02	-.46	.05	-.13	2.42
	(.19)	(2.06)	(.17)	(.23)	(2.43)
Hispanic Americans	-.02	1.60	-.20	.37	2.00
	(.25)	(2.93)	(.23)	(.25)	(3.23)
Native American or Alaska Native	-.97	2.34	-1.26	-13.20***	-6.98
	(.98)	(12.74)	(.90)	(.48)	(8.01)
Native Hawaiian or other Pacific Islanders	.72	28.45	2.24***	1.85***	-1.90
	(1.06)	(15.34)	(.85)	(.60)	(8.87)
Mixed Racial/Ethnic Heritage	-.09	-4.94*	.01	.08	-2.04
	(.37)	(2.92)	(.29)	(.43)	(3.55)
Others	-1.31*	-7.41	-1.15*	-.89	-7.74*
	(.77)	(5.40)	(.67)	(1.19)	(4.43)
Giving in the Past 12 Months	.86***	6.36***	.93***	.67***	10.31***
	(.14)	(1.53)	(.13)	(.16)	(1.50)
Constant	.91***	19.52***	N.A.	N.A.	12.45***
	(.27)	(3.26)			(3.03)

Note: Dependent Variables: (1) Willing to Donate (yes or no; binary; logistic regression), (2) How Much from an Imaginary $100 (from $0 to $100; continuous; ordinary least squares), (3) Willing to Donate from Their Own Wallet (from No, $0 to Yes, over $100; ordinal; ordered logistic regression), (4) Willing to Donate Monthly from Their Own Wallet (from No, $0 to Yes, over $100; ordinal; ordered logistic regression), and (5) Percent of Experiment

Compensation Willing to Donate (from 0% to 100%; continuous; ordinary least squares); N = 1,031 participants; Reference group is the ancillary commercial income group; Robust standard errors are in parentheses; * p ≤ .10, ** p ≤ .05, *** p ≤ .01.

Table 8 *Summary of the Model Results*

	Table 4	Table 4	Table 5	Table 6	Table 7
Dependent Variables	Core vs Control	Ancillary vs Control	Ancillary vs Core	High Intensity Core	High Intensity Ancillary
Willing to Donate	-	+	+	+	n.s.
Imaginary $100	n.s.	+	+	n.s.	n.s.
Own Wallet	n.s.	+	+	n.s.	n.s.
Own Wallet Monthly	n.s.	+	n.s.	n.s.	n.s.
Experiment Compensation	n.s.	+	n.s.	n.s.	n.s.

Note: n.s. = nonsignificant; Note: N = 1,031 Participants.

Table 9 *Summary of the Effect Sizes*

	Table 4	Table 4	Table 5	Table 6	Table 7
Dependent Variables	Core vs Control	Ancillary vs Control	Ancillary vs Core	High Intensity Core	High Intensity Ancillary
Willing to Donate	-0.27	0.19	0.46	0.24	-0.02
Imaginary $100	-0.04	0.19	0.22	0.13	0.01
Own Wallet	-0.07	0.17	0.23	0.09	-0.02
Own Wallet Monthly	0.05	0.12	0.07	-0.05	0.06
Experiment Compensation	0.05	0.21	0.15	0.12	0.01

Note: N = 1,031 Participants.

Table 10 *Summary of the Results Using Kruskal-Wallis and Dunn's Tests*

Dependent Variables	Kruskal-Wallis Statistics	Table 4 Core vs Control	Table 4 Ancillary vs Control	Table 5 Ancillary vs Core	Table 6 High Intensity Core	Table 7 High Intensity Ancillary
		Dunn's Tests				
Willing to Donate	18.92***	-	+	+	+	n.s.
Imaginary $100	12.87***	n.s.	+	+	+	n.s.
Own Wallet	7.24	n.s.	+	+	n.s.	n.s.
Own Wallet Monthly	3.57	n.s.	**n.s.**	n.s.	n.s.	n.s.
Experiment Compensation	7.45	n.s.	**n.s.**	n.s.	n.s.	n.s.

Note: n.s. = nonsignificant; N = 1,031 participants; * $p \leq .10$, ** $p \leq .05$, *** $p \leq .01$.

[i] Pre-registered online with 'As Predicted' on March 10, 2021 (#60487).
[ii] In our study, participants were rewarded with $1.5 after completion of the survey.
[iii] The survey and consent forms were approved by an Institutional Review Boards on February 17, 2021 (2020-00849).
[iv] G*Power 3.1 software indicates that minimum 955 respondents are required to detect significant effects.
[v] We use 2019 NCCS Core Files to calculate the numbers. 2019 is the latest year that data dictionary is available for us to categorize revenue streams. Please see https://nccs-data.urban.org/data.php?ds=core.
[vi] In this case, samples of less than 200 participants.
[vii] Our participant pool is not representative of the US population. Our sample has a slightly bias towards young and high levels of education population. Another limitation of using online crowdsourcing platforms is that it is difficult to control conditions, such as equipment, locations, potential distractions, under which participants fill out surveys as in a lab environment.