LUISS 𝕀

Degree Program in Management

Course of Research Project Design

Fundraising events: are they a viable substitute for earmarked donations for humanitarian organizations?

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Academic Year 2023/2024

Abstract

Purpose: This study aims to explore donor preferences in the context of different donation options provided by humanitarian organizations, specifically focusing on earmarked donations (ED), flexible donations (FD), and participation in fundraising events (FE), with the aim of understanding whether providing fundraising event options is an effective strategy to increase flexible donations.

Methodology: A quantitative experimental design was employed, involving 252 participants divided into control and treatment groups. The control group provided only the option to either make an earmarked or a flexible donation, while the treatment group also included a fundraising event option (implying a flexible donation). Data were collected through an online survey and analyzed using chi-square tests, Kruskal-Wallis Test and Mann-Whitney U Test to examine differences in donation choices and perception variables.

Findings: The analysis revealed that when given the choice between participating to a fundraising event or make an earmark donation, donors prefer participation in the event. A significant decrease in earmarked donations was observed between the control group and the treatment group, implying that the additional fundraising event option effectively increases the proportion of overall flexible donations. Moreover, a moderately significant difference was found in the perception of personal benefit obtained from the earmarked donation and fundraising event participation.

Originality/value: This study contributes to the understanding of donor preferences, highlighting the importance of offering fundraising events to increase overall flexible donations. The findings provide valuable insights for humanitarian organizations to optimize their fundraising strategies and better engage their donor base.

List of abbreviations

ALNAP – Active Learning Network for Accountability and Performance

ED – Earmarked Donation

FD – Flexible Donation

FE – Fundraising Event

H1 – Hypothesis 1

H2 – Hypothesis 2

H3 – Hypothesis 3

H4 – Hypothesis 4

HO – Humanitarian Organization

MSF – Médecins Sans Frontières

NGOs – Non-Governmental Organizations

NPO – Non-Profit Organization

NRC – Norwegian Refugee Council

OCHA – Office for the Coordination of Humanitarian Affairs

RQ – Research Question

SD/ Std – Standard Deviation

USAID – United States Agency for International Development

WFP – World Food Programme

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1. Introduction

1.1. Background

Humanitarian organizations (HOs) provide goods and services to people in need, using funds provided by donors supporting their mission. They aim at reducing and minimizing human suffering, guided by their principles of humanity, neutrality and impartiality (Tomasini & Wassenhove, 2009). HOs comprise a diverse range of organizations, from international organizations like the World Food Programme (WFP) to locally active non-governmental organizations (NGOs) (Burkart et al., 2016).

Donors have a direct relationship with HOs and their preferences can influence HOs' course of action and usage of resources, as they exert power through both the donations themselves, deciding the amount and type of donation (e.g. in-kind or cash), and the threat of withdrawing their support (Burkart et al., 2016). The literature distinguishes between two types of donors: institutional donors such as governmental development aid agencies (e.g. USAID), and private donors (or individuals) (Besiou et al., 2014). Institutional donations are driven mostly by HOs performance and efficiency considerations, while private donations are influenced more by other factors including internal motivations, such as warm-glow (internal satisfaction that arises from giving to others) and prestige, and external motivations, such as media attention and urgency of programs (Aflaki & Pedraza-Martinez, 2016; Urrea & Pedraza-Martinez, 2019).

Among the important factors influencing the success of HOs in fulfilling their and their donors' needs there are: funding systems, funds, and their characteristics. As a matter of fact, funding determines not only the scope of humanitarian actions but also crucially affects their speed, effectiveness, and efficiency (Wakolbinger & Toyasaki, 2022). Funding allocation decisions are a multiple level process: donors evaluate whether and to whom to donate and humanitarian organizations decide how to use the received resources and how to allocate them between disaster response programs and development programs (when conducted in parallel and the

fundings received are completely flexible) (Besiou et al., 2014; Burkart et al., 2016; Stauffer et al., 2016).

Humanitarian organizations collect funds through fundraising, which, as described by Andreasen & Kotler (2008), is an exchange of values between the humanitarian organization and donors, meeting donors' needs. Fundraising activities can be grouped in the following categories: major gift fundraising; direct marketing fundraising; Internet fundraising; retention and development of relations with donors; bequest gift, in memoriam and tribute donation; planned giving; corporate giving, and grant and foundations (Sargeant et al., 2010). In order to collect funds, the humanitarian organizations can organize fundraising events to stimulate donors' participation and contribution. For example, the British Red Cross organizes fundraising events, such as sports events (e.g. marathons and walks) and social events (e.g. balls) and encourages other individuals and companies to organize fundraising events on their behalf in exchange for the promotional material to use during the event (British Red Cross, 2024).

1.2. Problem indication

In recent years, the gap between funds needed and funds received by humanitarian organizations has continued to increase, limiting the budgets available for both development programs (or anticipatory action) and disaster recovery (ALNAP, 2022; OCHA, 2023). Moreover, funding received is typically earmarked and tied to a specific program/country/purpose, which leads to funding usage inefficiencies and limits organizations' help to those most in need (Burkart et al., 2016). The need for more flexible funding is evident in order to best reach HOs' beneficiaries and improve HOs' overall performance and efficiency (NRC, 2016; WFP, 2022).

When raising funds, HOs can decide whether to allow for earmarking, creating a special fund for a specific program, or allow only non-earmarked donations through a general-purpose fund (Toyasaki & Wakolbinger, 2014). Earmarking reduces donors' uncertainty about how the funds will be used and leads to a higher number of donations through the activation of more donors (Fuchs et al., 2020; Özer et al., 2023). However, earmarking reduces operational performance and efficiency of

HOs as donations can only be allocated for certain activities (Besiou et al., 2014; Pedraza Martinez et al., 2011). In contrast, non-earmarking positively affects operational performance as it gives HOs flexibility to devote resources from donors according to the charities' own strengths, capabilities, and mission, as well as re-allocate donations from overfunded programs to underfunded programs, guaranteeing a more proper and balanced use of the funds (NRC, 2016). Therefore, HOs prefer to receive non-earmarked funding (Aflaki & Pedraza-Martinez, 2016; Keshvari Fard et al., 2019).

The majority of private donations are constrained by earmarking, reducing the flexibility in use of their donations and possible need for reallocation to a different program (Toyasaki & Wakolbinger, 2014). Adapting the way fundraising is done for private donations can result in the preferred forms of donations, with higher flexibility (Ülkü et al., 2015). Thus, it is important to understand which factors influence donors' decisions to earmark and find possible substitutes which lead to flexible funding.

Fundraising activities from charity organizations provide important incentives for private donors (Urrea & Pedraza-Martinez, 2019) and when organizations reduce fundraising spending, total contributions from private donors drop substantially (Andreoni & Payne, 2011). Engaged donors are more willing to donate and involve other donors, highlighting the importance of identifying communications and activities likely to create deep and enduring connections between a donor and the charity the person supports (Bennett, 2013).

As previously stated private donors' decisions to earmark are mainly driven by the consequent increase in potential donors' perceptions of being able to make specific impact and feeling of control over the donation (Fuchs et al., 2020; Özer et al., 2023).
In a similar way, fundraising events may attract donors by increasing their sense of engagement and contribution to the organization and provide a higher donors' utility given by the experience per se (Bhati & Hansen, 2020; Olivola & Shafir, 2013; Webber, 2004). Given these effects, it can be hypothesized that giving donors the choice between donating or participating to an event could lead donors to choose

event participation (without the possibility to earmark) rather than the donation itself (which can be earmarked), consequently increasing the proportion of flexible funding raised by the HO.

Therefore, understanding if this is a viable way to decrease donors' needs for earmarking while keeping their satisfaction high and improving the relationship and trust between HOs and donors, is useful for HOs in developing strategies for flexible fundraising. This thesis objective is to analyze whether, and to what extent, donors are willing to choose participating in a fundraising event rather than make a donation with the possibility to earmark and control their donations.

To this end, the following problem statement is defined:

To what extent does the option of participating in fundraising events offset private donors' preference for earmarking?

To answer the problem statement the following research questions have been formulated, divided between theoretical and empirical RQs.

Theoretical RQs:

1. What are the factors considered by donors when making a donation?
2. What are the factors influencing donors' earmarking decisions?
3. What are the factors influencing donors' participation to fundraising events?

Empirical RQs:

4. To what extent are donors willing to choose participation to a fundraising event rather than an earmarked donation?
5. To what extent do the factors influencing donors' utility change between earmarking and fundraising event participation?

1.3. Theoretical contributions

Studies on earmarking have mostly focused on the impact that earmarking has on donors' decisions and activation (Fuchs et al., 2020; Özer et al., 2023) and the inefficiencies caused to the humanitarian organizations, due to the inflexibility of the funds provided (Aflaki & Pedraza-Martinez, 2016; Besiou et al., 2014; Toyasaki

& Wakolbinger, 2014); or how competition among humanitarian organizations impacts earmarking and HOs' performance (Aflaki et al., 2022; Aflaki & Pedraza Martinez, 2020). Mechanisms to increase flexible funding have not yet been explored.

Moreover, previous research on for-profit organizations has demonstrated that customer engagement is highly impactful in enhancing customer-brand relationships (Brodie et al., 2011), the same can be assumed for HOs and donors relationship, as highlighted in Bennett (2013) research on causes and effects of donors engagement (characterized in terms of donor's enthusiasm when supporting an organization, passion for the charity, and deep interest in its activities).

Current literature on fundraising events has mostly focused on charities and non-profit organizations in general, without analyzing the role of fundraising events on flexible funding for humanitarian organizations, and in particular the impact of proposing event participation as a potential substitute for earmarking decisions.

This thesis aims at contributing to the literature by studying private donors' behavior when given the choice between the possibility to earmark (and thus control their donation) and the participation to a fundraising event, in the context of humanitarian organizations. Furthermore, the research could shed light on which are the events (if any) which have a greater impact on decisions for flexibility.

1.4. Thesis structure

The thesis will be constructed as follows: Chapter 2 will present a literature review summarizing what has already been studied in this field and will be used to answer the three theoretical research questions. Chapter 3 will discuss the methodology employed in this research and will provide an overview of the experiment used to collect data to answer the empirical research questions, the results of which will be examined and explained in Chapter 4. Chapter 5 will then be used to discuss the findings relative to the literature as well as the theoretical contributions and managerial implications coming from the experiment results, it will also discuss the study's limits and possible future research.

2. Literature review

This chapter will give an overview of current literature, providing an outlook on what has already been studied in this field. In particular, it will discuss the reasons why people donate, the concepts of earmarking and fundraising event participation. Moreover, this literature review will be used to answer the three theoretical research questions and act as a basis for the formulation of hypotheses that will be tested in this thesis to answer the empirical research questions.

2.1. Reasons to donate

In order to develop strategies to increase flexible funding for humanitarian organizations it is important to firstly understand donors' behavior and the factors which influence donations.

Charitable giving (defined as the voluntary donation of money and time to an organization that benefits others beyond one's own family (Bekkers & Wiepking, 2010)) involves three pillars: charities creating strategies to obtain resources from donors, donors providing resources, and charities distributing those resources to those in need (List, 2011).

In the context of humanitarian organizations, funding allocation decisions are a multi-level process: donors evaluate whether and to whom to donate, and humanitarian organizations decide how to use the received resources and how to allocate them between disaster response programs and development programs (when conducted concurrently and the funds received are completely flexible) (Besiou et al., 2014; Burkart et al., 2016; Stauffer et al., 2016). Charities, nonprofits and humanitarian organizations connect donors with beneficiaries and act as fundraisers, facilitating individual contributions (Barman, 2007; Heaslip et al., 2018).

Individual motivation to contribute to a charity/NPO has been a long-standing research topic. Previous research has investigated constructs related to donor behavior and analyzed the effects of various input variables and moderating variables in the donation process. Sargeant (1999) studied donors' behavior for non-

profit organizations and developed a model of individual charity giving behavior. The research identifies three variables as inputs: charity appeal/brand, facts/images and mode of ask. Once the message sent by the charity has been received by donors, the variables that impact their perceptual reaction to the message are: portrayal of the individuals in need, fit of the donor's self-image with the charity, strength of stimulus and degree of perceptual noise. In particular, donors will be more willing to give to those organizations which: portray the people in need in an acceptable manner (Eayrs & Ellis, 1990), and/or are aligned with the donors' self-image or how they want to be perceived by others. Moreover, the strength of the stimulus greatly impacts donors' response, which is related to: perceived urgency of the recipient situation (higher degrees of urgency stimulate higher degrees of support); perceived degree of personal responsibility (the higher, the more effective at generating a response); and clarity of the request (clear requests of support have more probability of soliciting a response that those which are more vague or general in nature (Clark & Word, 1972)). Lastly, the degree of perceptual noise refers to the number of organizations present in the market: the level of compliance for an individual charity depends on how similar organizations market themselves to potential donors.

As for donations, donors' will make decisions based on past experience (people who have donated in the past are more likely to donate again to the same charity or to other causes (Sargeant & Kähler, 1999)), and judgmental criteria to evaluate whether a given organization is worthy of the donation. A stream of literature correlates donation to an individual return (either material or emotional) and assumes that the desire to give emerges from the hope of obtaining some form of individual return (Amos, 1982; Arrow, 1972; Frisch & Gerrard, 1981). Contrary to this, other authors suggest that donors may act on principles rather than purely self-interest, or for other intrinsic or social rewards which can result from the act of giving (Bolnick, 1975; Sugden, 1982). Lastly, some papers supported the idea of donating solely for altruistic reasons (Clary & Snyder, 1991; Margolis, 1982; Piliavin & Charng, 1990).

Furthermore, Sargeant (1999) identifies some factors acting as moderators in the donation process and classifies them in two categories: extrinsic determinants and intrinsic determinants.

Extrinsic determinants are the demographic profile of the donor: age, gender, social class, income and geodemographic. It is interesting to note that donations motivation changes for different socio-economic classes, as highlighted by Radley & Kennedy (1992): lower socio-economic classes tend to donate more out of pity for the recipients while higher socio-economic groups tend to donate also to change the current situation.

On the other hand, intrinsic determinants are the main possible underlying individual motives guiding charity supporting decisions: empathy, sympathy, guilt, pity, fear, need for self-esteem and social justice.

Similar to Sargeant (1999), much research in the nonprofit marketing field argues that both intrinsic and extrinsic variables can be used as a base to divide givers from non-givers to charities. However, these variables do not extensively explain how donors choose between the possible organizations and how they determine and allocate donations. To this end, Sargeant et al. (2004) provide the first empirically based marketing model of the perceptions of donors and the resulting impact on donations. From their study, it arises that a complex set causal factors drives the amount a donor might be willing to give to a nonprofit organization. Some of these factors are: demonstrable/familial utility deriving from the gift (individual returns), organizational effectiveness (the more favorable the public perception of the nonprofit organizations the greater the support given by donors), perceived professionalism of an organization (if it's too high, donations will decrease), and quality of service supplied (higher perceived quality is correlated to greater donors' loyalty and donations), all of which might influence donations and the longevity of the donor–nonprofit relationship.

To achieve a clearer view of what has been studied in the literature, Kumar & Chakrabarti (2023) conducted a systematic literature review analyzing past research on charity donor behavior and found that factors influencing donor behavior can be divided into three dimensions: Donor Dimension, Charity and Nonprofit

Dimension[1] and External Environment Dimension[2]. Focusing on the Donor Dimension, which includes socio-demographic variables, intrinsic motivations, extrinsic motivations, donor's identity (moral, political, personal and social) and its alignment with the charity moral foundation, and past donation behavior, we can conclude that donors' motivations to donate can be divided into two main categories: intrinsic motivations and extrinsic motivations.

Intrinsic motivations are those which arise from within the donor and are related to emotions guiding the act of donating. In particular, the authors identify altruism (either pure or impure), and empathy/guilt as the main intrinsic motivations guiding donors' choice to donate. Altruism is a quality that assesses the degree of an individual inclination to act in the interests of others without expecting compensation or positive reinforcement in return (Karra et al., 2006). It is divided in: pure altruism for which donors are actually concerned about the issue for which they are donating; and impure altruism (warm glow of giving, defined as the phycological benefit arising from the act of giving) which is independent of social concerns. Donors experiencing pure altruism place a higher value on their contribution relative to those experiencing warm glow of giving (Andreoni, 1990). Wealthy donors are mostly motivated by altruism whereas small donors are mostly driven by warm glow motives (Karlan & Wood, 2017). Warm glow is composed by both an intrinsic component (the moral or internal satisfaction of giving and helping others) (Glazer & Konrad, 2008; van der Linden, 2015; Winterich & Barone, 2011) and an extrinsic component (extrinsic rewards such as recognition, prestige and identity signaling) (Scharf & Smith, 2016).

Empathy is the ability to put oneself in the shoes of another person and understand their struggles and opportunities. Empathic concern positively influences the donation decision and motivates the donors, focusing on the suffering of the people in need (Batson et al., 1987; Verhaert & Van den Poel, 2011). Helping behavior can be prompted by two different kinds of incentives: either selfless or selfish motive (Singh et al., 1996). Moreover, empathy raises anticipated guilt, increasing donation

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[1] Charity and Nonprofit Dimension comprises: type of charity, voluntary information disclosure, charity brand image/positioning and reputation, donation appeal- entitativity, relationship marketing, commitment and satisfaction by charity, matching the donation.

[2] External Environment Dimension consists of: religious causes, social norms, social pressure/peer pressure, social information, tax benefits, and rating of charity.

intentions (Basil et al., 2008). People with high degrees of empathy donate a considerable amount to a charity because they better grasp the future needs of beneficiaries (Wiepking & Maas, 2009). A recent consumer behavior study demonstrated that existential guilt has a direct favorable impact on the intention toward both charity contribution behavior and the purchase of cause-related products (Urbonavicius et al., 2019).

On the other hand, extrinsic motivations are those arising from an external source and are related to reputational concern, social reputation, self-respect, recognition, image and reward motivation (Kumar & Chakrabarti, 2023). Prior research has concluded that giving increases the donor's positive self-image, as the is perceived as kind and benevolent and experiences an improved reputation (Bekkers & Wiepking, 2010). People tend to contribute more when others are present because they want to be perceived as doing good. Social pressure can influence both the amount and the likelihood of contributing (Bhati & Hansen, 2020).

Lastly, it is important to note that donors are more likely to contribute if they feel their donation will make a difference (Cryder et al., 2013). Donors want to improve issues that are important to them, and such concerns are linked to their sense of identity. Bennett (2003), analyzing the factors affecting donors intention to donate to a specific HO, conclude that personal values and preferences have a strong influence on the selection.

In conclusion, to answer the first theoretical research question: "*What are the factors considered by donors when making a donation?*", we can say that donors' decision to donate to a particular HO is impacted by: the perception of the organization (organization's reputation/rating, alignment with donor's self-image), strength of stimulus, the degree of individual return obtained by the donation (social return, warm-glow), sense of impact, moral and personal values, and past experience. Moreover, donation decisions are moderated by: degree of donor's altruism and empathy or guilt, social pressure, and socio-demographic characteristics of donors.

In order to raise money for their causes, HOs attempt to align their organizational activities with the intrinsic and extrinsic motivations of private donors (Urrea &

Pedraza-Martinez, 2019). For example, HOs use advertisement targeting donors' desire for warm glow and appeal to donors' social motivations by giving them recognition (e.g. small stickers or official acknowledgements on the HOs' websites). HOs also use diverse fundraising methods, among which there is also earmarking, which is a key topic in the literature on private cash donations for humanitarian operations (Aflaki & Pedraza-Martinez, 2016; Toyasaki & Wakolbinger, 2014).

2.2. Earmarking

Earmarking has been defined in the literature as any constraint applied by a donor to restrict a donation or a portion of it to a specified project activity, purpose, and/or geographic area (NRC, 2016; Aflaki et al., 2020; Özer et al., 2023). Humanitarian organizations can allow earmarking by giving their donors the choice to select a specific project in which the donated money have to be invested (Fuchs et al., 2020) or by creating a special fund (e.g. for an earthquake emergency in Japan) to collect donations specifically for that project (Toyasaki & Wakolbinger, 2014).

Aflaki & Pedraza-Martinez (2016) study the earmarking decision linking it to the operational performance of HOs. On the one hand, earmarking raises donations while imposing limits that reduce HOs' operational performance. Non-earmarking, on the other hand, results in fewer funds but improves operational efficiency. The authors suggest alternatives to total earmarked funding: optional earmarking, where the donor can choose between total earmarking and non-earmarking; and conditional earmarking, where the donor can earmark their donation but a publicly announced fraction of each donation is kept as a flexible resource to be used according to the HOs' needs.

2.2.1. Donors' reasons to earmark

As argued by Aflaki & Pedraza-Martinez (2016) and Nunnenkamp & Öhler (2012), earmarking gives donors a sense of control by ensuring that the HOs allocate donations to support donors' preferred causes. Donors are assumed to value control over the use of donations as this control enhances their feelings of agency over a

process which is often determined by the charity (Eckel et al., 2017; Fuchs et al., 2020). Thus, donors experience some utility from exercising control over the use of their funds (Barman, 2008; Besiou et al., 2014).

Furthermore, Fuchs et al. (2020) through a cross-county randomized survey experiment, showed that allowing earmarking increases willingness to donate and that this effect is mostly achieved through a higher donors' activation rather than through higher donations' amounts. Moreover, their follow-up study, aimed at addressing the first study's limitations, revealed that earmarking options boost potential donors' perceptions of their ability to make a specific impact, which explains the individual's increased willingness to donate. This is also in line with Duncan (2004)'s idea that donors are motivated by the possibility of personally making a difference and having an impact on the world.

Following this research, Özer et al. (2023) continue in the assumption that earmarking increases donations and hypothesize that this increase could be affected by three possible mechanisms: 1) giving donors control over their contributions, 2) increasing the operational transparency of donations and 3) enhancing donors' warm-glow and altruism (as also hypothesized, but not tested, by Gneezy et al. (2014) in their paper about donors' overhead aversion). Özer et al. (2023) study, through online experiments, the processes and the reasons through which earmarking affects donors' choices. In particular, they aim at measuring the impact of earmarking on donors' choices and analyzing the role of the previously mentioned mechanisms in fundraising. Their results show that earmarking has varying effects on the three decisions donors make (choice between earmarking and non-earmarking, choice to donate or not, choice of donation amount) and that it does not always increase donations. Their main results highlight that, when donors are free to choose the donation type, more donors choose non-earmarking than earmarking; although, after donors select their preferred donation type, earmarking activates a larger proportion of donors than non-earmarking, so more people are willing to make an earmarked donation, as also shown in Fuchs et al. (2020) research. In addition, no significant differences are found in donors' average donation amounts between earmarking and non-earmarking. Another important

discovery is that donors dislike being asked to donate to their least preferred type of donation, and when deprived of their sense of control over the donation, they decide to donate less on average. Lastly, they show that donors' warm glow is higher when they choose earmarking compared to non-earmarking.

So to answer the theoretical research question: "*What are the factors influencing donors' earmarking decisions?*", we can conclude that earmarking decisions are driven mainly by an increase in the sense of control over the donation and an increase in the sense of impact of the donation, consequently increasing donors' warm glow and utility.

2.2.2. Earmarking effect on humanitarian organizations

Obtaining donations is challenging for HOs, especially due to the high competition for donor attention and funding (Oloruntoba & Gray, 2006; Van Wassenhove, 2006). Some humanitarian organizations, like the Red Cross, offer earmarking to their donors and simultaneously implement disaster response and development programs. (Aflaki & Pedraza-Martinez, 2016). However, this possibility to earmark may lead donors to give in excess of HO needs. For instance, during the response to the Asian tsunami, Médecins Sans Frontières (MSF) ceased to collect earmarked funding for that program due to an overabundance of earmarked donations (Tomasini & Wassenhove, 2009), and currently they do not allow for earmarked donations: on their website individuals can only donate to the all-purpose fund without the possibility to choose the allocation of the donation between different projects or causes (Médecins Sans Frontières, 2024).

Thus, earmarking creates operational inefficiencies for HOs by creating constraints in resource allocation which negatively impact HOs' operational performance. Hence, humanitarian organizations prefer to receive flexible funding, since increasing non-earmarked funding increases HO's operational efficiency (Aflaki & Pedraza-Martinez, 2016; Besiou et al., 2014; Fard et al., 2022).

2.3. Fundraising events

Milne and Gordon (1993) acknowledge that donors are becoming more sophisticated, discriminating, and selective, seeking to cultivate stronger relationships with the organizations they choose to fund. Accordingly, the use of approaches that foster a stronger sense of relationship has also been demonstrated to promote compliance (Roloff, 1987; Roloff et al., 1988; Aune and Basil, 1994).

As a way to increase funding, humanitarian organizations can organize special events, such as auctions, raffles, galas/balls, and walks/runs. Past research has analyzed the effects of different types of events (auctions, raffles and charitable walks/runs) on donations.

Literature covering auctions has studied multiple forms of auctions: silent auctions, where bids are communicated electronically or in writing; oral auctions, where an auctioneer yells out increasing bids; sealed or blind auctions, wherein participants are blind to each other's bids. Lab experiments have supported the conclusion that an all-pay format, where bidders must pay their bid for an item whether they win or lose, will raise more money than a standard winner-pay auction, although this type of auction is not common in fundraising (Faravelli & Stanca, 2012; Schram & Onderstal, 2009). Contrary to this, natural field trials within an existing fundraising event, showed higher participation and money raised in an auction in which only the winner paid the highest bid, and bidding is influenced by both the prizes given and altruistic attitude of the individual (Carpenter et al., 2008). Moreover, research shows that when identical items were auctioned in both a non-charitable and a charitable context, those sold for the benefit of a charity were paid a higher price (Popkowski Leszczyc & Rothkopf, 2010).

Studies analyzing raffles, have concluded that, everything else being equal, using a lottery or raffle encourages individuals to donate more than merely asking for donations, since people often respond strongly to the possibility of winning a prize (Lange et al., 2007). Carpenter & Matthews (2017) show that when tickets are priced with discounts for additional purchased tickets or when donors get identical

chances of winning after making donations over a certain floor amount, the total funds collected are higher than in a raffle selling fixed-price tickets.

Olivola & Shafir (2013) focused their research on charitable walks/runs and run five different experiments, from which they drew many interesting conclusions. In particular, they find that, especially for causes associated with human suffering, willingness to contribute increases when the contribution process is perceived to be painful and effortful rather than easy and enjoyable (defined as the "martyrdom effect"). People are willing to donate more to charity when they anticipate having to suffer to raise money. However, the martyrdom effect is not the outcome of an attribute substitution strategy (Kahneman & Frederick, 2002), thus individuals do not utilize the amount of pain and effort required in fundraising to determine the worthiness of the donation. The authors propose that anticipating pain and effort causes people to assign more importance to their donations and the experience of contributing, prompting larger prosocial actions (Olivola & Shafir, 2013).

Fundraising events are an effective way to collect funds by leveraging different mechanisms of donors' motivations to donate: solicitation (during the event donors are prompt to donate); personal benefit (e.g. entertainment, a dinner or the chance to win something); reputation (since donors are exposed and can be seen as being charitable); altruism (when donors care about the organization's activities); values (when the organization's scope is aligned with the donor's values); and psychological benefits (e.g. improvement of donor self-image, warm glow, enjoyment of others' company) (Bhati & Hansen, 2020).

In particular, Webber (2004) states that participants of fundraising events gain a private benefit (e.g. enjoyment, sense of personal achievement or display of generosity with consequent increase in reputation/recognition), providing charities with the opportunity of broadening their donor bases beyond those who are solely motivated to donate by their belief in the organization's cause.

Bennett et al. (2007) studied the reasons behind people's participation to mass sporting events with charity connections and identified four main motives for participation: (i) personal involvement with the charity cause supported by the event, (ii) opportunities to lead a healthy lifestyle provided by the event, (iii) an

individual's involvement with the sport in question, and (iv) the desire to mix socially with other participants. Individuals who felt a 'duty to participate' and who wanted to experience 'fun and enjoyment' were more inclined than others to take part frequently in charity-related sporting events. Moreover, the majority of respondents were willing to pay a higher fee for sports events supporting a charity. Lastly, Bennett & Gabriel (1999) discovered that supporters of a charity may become emotionally interested in its operations and existence, either motivated by pure altruism (Bierhoff et al., 1991) or by merely egoistic aspirations to feel better as a result of supporting a noble cause.

Therefore, answering the third theoretical research question: "*What are the factors influencing donors' participation to fundraising events?*", we can state that individuals' participation to fundraising events is driven by: solicitation, personal involvement with the organization or interest in the organization's cause, individual return obtained by participating (personal benefit, social return, warm-glow), and donor's moral values and altruism.

2.4. Hypotheses

From the literature review we can draw the conclusion that contributions to charities (either in the form of donations or participation to a fundraising events) are driven by: characteristics of the charity, donors' feeling of altruism/empathy/guilt, social pressure, past behavior and utility obtained from the contribution. Donors' utility can be influenced by the following factors: control over the donation, sense of impact, increased reputation/social recognition, individual benefits, and warm glow. In particular, both earmarking and fundraising events amplify donors' warm glow either by increasing donors' sense of impact (influencing the intrinsic warm glow) or by providing higher social recognition (influencing the extrinsic warm glow).

Since both earmarking and fundraising events impact donors' utility, this thesis studies them as possible substitutes and analyzes donors' preferences when given the choice between earmarking and participating in a fundraising event. The following hypotheses to be tested are formulated:

H1*: When given the choice between a flexible and an earmarked donation, a higher proportion of donors will choose an earmarked donation*

From the past research reported in the literature review, we have seen that earmarking activates more donors than a flexible donation. Thus, it is expected that when given the option between an earmarked donation and a flexible donation, more donors will choose the earmarking option. The reasoning behind this hypothesis is that earmarking increases donors' sense of impact and the possibility to control their donation.

H2*: The availability of fundraising events as an alternative donation option will decrease the proportion of donors choosing earmarked donations.*

Given the many individual benefits which can be obtained by participating in a fundraising event (personal, social, and psychological, such as entertainment, social recognition, and improved reputation) the hypothesis is that when given the option to choose between participating in a fundraising event and earmark the donation, donors will prefer participation to the event.

H3: *Warm glow is positively correlated to earmarking*

The literature showed that earmarking affects warm glow, which is also amplified by the increase in donors' sense of impact (impact on the intrinsic component of warm glow), so we expect a positive relationship between the two

H4*: Warm glow is positively correlated to the choice of participating in a fundraising event*

The literature showed that fundraising events affects warm glow, which is also amplified by the higher individual benefits given by the fundraising events (impact on the extrinsic component of warm glow), so we expect a positive relationship between the two.

Thus, from the hypotheses formulated, the following conceptual model can be constructed, highlighting the possible influence of fundraising event participation and earmarking on warm glow, and the consequential impact on donor's utility.
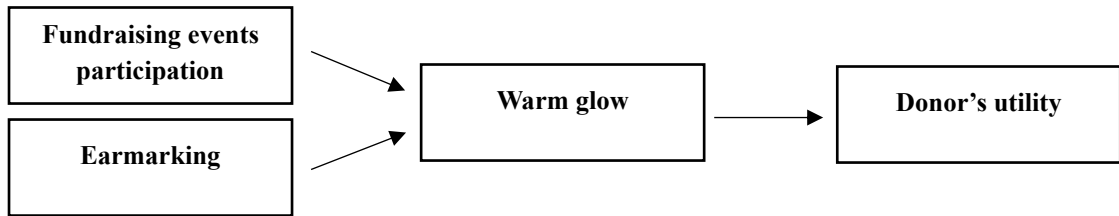
Figure 1: Conceptual Model

3. Methodology

3.1. Research Design

This study employs a quantitative research design to investigate the factors influencing donor preferences between earmarked donations (ED), flexible donations (FD), and participation in fundraising events (FE). Quantitative research allows for the objective measurement and statistical analysis of data, which is suitable for testing hypotheses about donor's behavior (Creswell, 2014).

The primary purpose of this study is to understand how different donation options affect donor preferences and motivations. Specifically, the study aims to determine whether providing the option to participate in fundraising events influences donors' likelihood to choose flexible donations over earmarked donations.

An experimental approach was chosen, wherein participants were randomly assigned to either a control group or a treatment group. The control group chose between earmarked and flexible donations, while the treatment group also had the option to choose participation in fundraising events. Random assignment helps control for confounding variables, ensuring that any observed differences between groups can be attributed to the experimental manipulation (Campbell et al., 1963). This design allows for the examination of donor behavior under different conditions and provides robust data to test the study's hypotheses. By using a randomized experimental design, this study can more confidently attribute differences in donor behavior to the type of donation option presented, thus enhancing the validity of the findings.

3.2. Data collection

3.2.1. Sampling

Participants for this study were recruited through online platforms and social media channels. The target population included both donors and potential donors of different ages and backgrounds. This diverse recruitment is essential because motivations for charitable giving vary significantly across age groups; younger

donors are often influenced by social media and driven by social justice causes, while older donors prefer traditional causes and methods (Bennett, 2003; Sargeant & Kähler, 1999). Additionally, donors from different socioeconomic backgrounds exhibit varied donation behaviors, with higher socioeconomic groups donating larger amounts motivated by altruism, and lower socioeconomic groups donating smaller amounts more frequently, driven by empathy and personal experience (Bekkers & Wiepking, 2010; Radley & Kennedy, 1992). Including diverse demographics ensures the sample is representative of the broader population, enhancing the validity and reliability of the findings (Creswell, 2014; Dillman et al., 2014). Furthermore, different demographics respond differently to fundraising strategies; younger donors may prefer interactive events like charity runs, while older donors may prefer traditional methods like gala dinners (Andreoni, 1990; Bennett et al., 2007). By including donors of different ages and backgrounds, this study captures a comprehensive view of donor behavior, enhancing the applicability of its findings for diverse fundraising strategies.

After data cleaning, a total sample size of 252 participants was achieved, with 130 participants in the control group and 122 participants in the treatment group.

3.2.2. Experiment Design

Data was collected using an online experiment administered through Qualtrics. Qualtrics is a widely used tool for creating and distributing surveys, known for its ease of use and robust data collection capabilities (Qualtrics, 2021). The experiment was designed to capture participants' donation choices, past and future donation behavior, demographic information, and responses to various perception statements measuring the donors' utility factors. Online surveys are an efficient and cost-effective method for collecting data from a large and geographically diverse sample (Dillman et al., 2014).

The experiment was structured as follows (for more details about the experiment questions see Appendix A):

1. Introduction: Participants were informed about the purpose of the study and provided consent to participate.

2. Group Assignment: Participants were randomly assigned to either the control group or the treatment group to ensure comparability and control for selection bias (Shadish et al., 2002). In both cases participants were presented with a scenario in which they were asked to make a fictional donation (10€) to a humanitarian organization (Save The Children) which allowed either to earmark the donation to a specific program (Emergency or Survival[3]) or to donate to the all-purpose fund. In addition to this, the scenario in the Treatment Group also included the possibility to buy a ticket (10€) for a fundraising event (either a raffle, an aperitivo or a 5km run), instead of making the donation, with the information that the money paid for the ticket would be allocated in the all-purpose fund (counting as a flexible donation). Participants were presented with the options and were asked to choose the one they preferred most.

3. Donation Choice: Participants in the control group chose between earmarked donations (ED) choosing to donate specifically to either the Survival or the Emergency program, and flexible donations (FD) donating to the all-purpose fund. Participants in the treatment group chose between ED, FD, and fundraising events (FE) by choosing to buy the ticket for either the raffle, the aperitivo or the 5km run. This division was made to test the influence of giving the option to participate in a fundraising event on flexible donation choices.

4. Perception Statements: Following their choice, participants rated their agreement with statements related to control, impact, personal benefit, warm glow, self-esteem, and social recognition on a scale from 1 (Strongly Disagree) to 5 (Strongly Agree). These statements were designed based on previous research on donor motivations to donate and the factors influencing donors' utility[4] (Bekkers & Wiepking, 2010).

5. Past Donation Behavior and Future Donation Intention: Participants provided information about their past donation behavior, including the frequency of

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[3] Note that Save the Children does indeed have the programs Survival and Emergency but does not allow to earmark donations for them. They are used to measure earmarking choices and preferences in the experiment, following the example of Özer et al. (2023) who used Action Against Hunger's programs to measure earmarking even though the organization does not actually allow it.
[4] See Chapter 2.

donations and participation in fundraising events, and the likelihood of future donations and participation to fundraising events.

6. <u>Demographic Information</u>: Participants provided demographic information, including gender, age, income, and occupation. This information is crucial for understanding the role of demographic factors in donation behavior (Sargeant, 1999).

3.3. Variables and measures

From the experiment, the following variables were created to use in the data analysis and test the different hypothesis.

The primary variable in this study is the *Group Assignment*. This binary variable indicates whether a participant was in the Control Group (0) or the Treatment Group (1). The purpose of this variable is to determine the impact of providing different donation options on donor preferences.

Donation Choice was measured by recording the choice made by participants during the experiment. Each participant's choice was categorized into one of the three options: Flexible Donation (FD), Earmarked Donation (ED), and Fundraising Event (FE). For some of the analysis FE and FD were combined in a single Flexible Donation category to compare with the Earmarked Donation.

Past Donation and *Past Participation* respectively capture the frequency of past donations and the frequency of past participation in fundraising events by respondents. These variables were measured by asking participants to indicate how frequently they had donated or participated in a fundraising event in the past, with options ranging from "Never" to "More than once a year". Responses were coded on a scale from 1 to 5, where 1 represented "Never" and 5 represented "More than once a year". They serve as a predictor for future donation behavior and can highlight patterns or trends in donor preferences, helping to understand how previous experiences with donating influence current donation choices. Moreover, the variables *Future Donation* and *Future Participation* respectively measure the respondents' likelihood of future donations and likelihood of future

participation to fundraising events. These variables were measured by asking participants to indicate how likely they were to donate or to participate in a fundraising event in the future, with options ranging from "Extremely Unlikely" to "Extremely Likely". Responses were coded on a scale from 1 to 5, with 1 representing "Extremely Unlikely" and 5 representing " Extremely Likely". These four variables are categorized as *Behavioral Variables* in the subsequent analysis.

The study also included several *Perception Variables* to capture donors' attitudes and feelings towards their donations. For all Perception Variables participants rated their agreement with the single item statements on a 5-point Likert scale, with responses ranging from 1 (Strongly Disagree) to 5 (Strongly Agree). In more detail the Perception Variables measured were the following:

Control, measured by the statement "I have control over my donation" This variable assesses the extent to which donors feel they can influence the allocation of their donations.

Impact, measured by the statement "My donation will make an impact" evaluates donors' perceptions of the effectiveness and significance of their contributions.

Personal Benefit was measured by the statement "I will get a personal benefit" and captures the expectation of personal gain from donating, such as tax benefits, social connections, or emotional satisfaction.

Warm Glow, referring to the positive emotional experience from the act of giving itself, was measured by the statement "It makes me feel good".

Self Esteem, measured by the statement "It improves my self-esteem", assesses how donating enhances a donor's self-esteem by reinforcing their self-image as a kind and generous person.

Social Recognition, was measured by the statement "It improves my social recognition/reputation" to assess the perceived impact on donors' social image and reputation.

In addition to these variables, demographic information was collected to get a comprehensive view of the respondent sample, including gender, age, income, and

occupation. *Gender* was coded as binary (Male/Female)[5], *Age* recorded in categories (e.g., 18-24, 25-34, etc.), *Income* categorized into ranges (e.g., Less than 10,000 €, 10,000-25,000 €, etc.), and *Occupation* categorized based on common job sectors (e.g., student, private sector, public sector).

3.4. Data Analysis

Data analysis was performed using Python[6], a powerful programming language well-suited for data analysis and statistical computing (Van Rossum & Drake, 2009). Before analyzing the data, the latter was cleaned using Microsoft Excel to ensure accuracy and completeness. This included removing incomplete responses and coding variables appropriately.

3.4.1. Descriptive statistics

Descriptive statistics were performed to summarize the data and provide an overview of the sample characteristics and main variables. This included calculating means, standard deviations, and frequency distributions for key variables. Descriptive statistics help in understanding the basic features of the data and provide a foundation for further statistical analysis (Field, 2013).

3.4.2. Hypothesis testing

To test the hypotheses, various statistical analyses were conducted to examine the differences in donation choices between the control and treatment groups. In particular, comparison of proportions was performed to assess differences between groups in terms of their donation choices. This analysis helps in understanding the distribution of choices across the different experimental conditions. These differences were tested statistically with the chi-square tests, to ensure statistical significance. This test is suitable for comparing categorical variables and determining whether there are significant associations between group membership and donation choice (McHugh, 2013). Lastly**,** the means of Perception Variables

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[5] The choices provided in the experiment questions included also the option "Non-binary", but due to absence of answers for this category the variable was coded as binary.
[6] All the codes used for statistical analysis, together with results obtained, are included in Appendix B

(e.g., control, impact, personal benefit) were analyzed. Analysis of variance (ANOVA) and t-tests were initially considered for mean comparisons across different donation choices. ANOVA is used to compare the means of three or more groups to see if at least one group mean is different from the others. It assumes that the data are normally distributed, the variances of the groups are equal (homoscedasticity), and the observations are independent. The t-test compares the means of two groups and assumes normality and equal variances (Cohen, 1988). Since the assumptions were not satisfied, non-parametric alternatives to ANOVA and t-tests were used. Specifically, the Kruskal-Wallis Test was applied when comparing more than two groups (ED, FD, FE). This test does not assume a normal distribution, it evaluates whether the samples originate from the same distribution (Kruskal & Wallis, 1952) The test ranks all data points together and compares the sum of ranks between groups. On the other hand, the Mann-Whitney U Test was used for pairwise comparisons (ED vs FE). It evaluates whether two independent samples come from the same distribution. It compares the ranks of the data points rather than their raw values, making it robust against non-normal distributions. This test is particularly useful in assessing differences in central tendency between two independent samples without assuming normal distribution (Mcknight & Najab, 2010). Overall, these tests help in understanding whether the means of perception variables (e.g., control, impact, personal benefit) significantly differ depending on the donation choice (ED, FD, FE).

3.4.3. Assumptions Testing

Before conducting the main analyses, the assumptions underlying each statistical test were carefully examined to ensure the validity of the results. For the chi-square tests, the assumption of expected cell frequencies was verified to confirm that all expected counts were sufficiently large. For ANOVA and t-tests, assumptions of normality and homogeneity of variances were tested. However, since these assumptions were not met, alternative non-parametric tests were employed. Specifically, the Kruskal-Wallis test was used as an alternative to ANOVA, and the Mann-Whitney U test was used in place of the t-test.

3.5. Reliability and validity

To ensure reliability and validity of the study and obtain meaningful and accurate results the following steps were taken.

3.5.1 Reliability and validity in the experiment design

The experimental design included random assignment of participants to either a control group or a treatment group, enhancing internal validity by controlling for potential confounding variables. This randomization ensures that differences observed between groups can be attributed to the experimental manipulation (Campbell et al., 1963). Although blinding was not applicable, efforts were made to provide consistent and unbiased information to participants across groups. Moreover, the experiment items were designed based on a comprehensive review of the literature on donor behavior and motivations, thereby enhancing content validity. Each statement's clarity and direct relevance to its underlying construct were emphasized during the survey design process to ensure each item independently provided reliable information. Construct validity was ensured by grounding the perception variables (control, impact, personal benefit, warm glow, self-esteem, social recognition) in existing literature. While extensive expert reviews were not conducted, significant efforts were made to align the items with established theoretical constructs (Bekkers & Wiepking, 2010; Andreoni, 1990). Lastly, while it was not possible to use incentives in the experiment, the latter tried to capture true preferences of donors by eliminating the option not to donate to isolate the preference between the different donation choices. To further isolate true preferences the donation amount was fixed and equal for all options, increasing the trustworthiness of results.

3.5.2. Pilot study

As part of ensuring validity, a pilot study was conducted to pre-test the experiment. This pilot study involved a small sample of participants who provided feedback on the clarity, relevance, and comprehensiveness of the experiment items. The feedback from the pilot study was used to refine and adjust the experiment

questions, ensuring they were interpreted consistently and measured the intended constructs effectively.

3.5.3. Power analysis

Power analysis was conducted to determine the minimum sample size needed to ensure the reliability of the study's findings and reduce the risk of Type II errors[7] (Cohen, 1992; Murphy et al., 2014). Aiming for a power of 0.80 [8], a medium effect size of 0.5 was chosen[9], which balances detectability and practicality (Cohen, 1988). This analysis[10] indicated that at least 66 participants per group were necessary to achieve the desired power with a significance level of 0.05, ensuring that the study is adequately powered to detect meaningful differences between the control and treatment groups (Faul et al., 2007; Lenth, 2001). The actual sample sizes of 130 participants in the control group and 122 in the treatment group resulted in an achieved power of approximately 0.98, indicating a high probability of detecting a true effect if one exists, thus enhancing the study's reliability.

3.5.4. Limitations

While every effort was made to ensure the reliability and validity of the study, there are limitations that should be acknowledged. The pilot study involved a small number of participants, which may not fully capture the diversity of the target population. Additionally, due to time and resource constraints, not all validity checks (such as extensive expert reviews) were performed. Future research should consider these limitations and aim to conduct more comprehensive validity assessments. Despite these constraints, the study provides valuable insights into donor behavior and preferences, and the methodological steps taken help to enhance the overall quality and trustworthiness of the study's results.

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[7] A Type II error occurs when a study fails to detect an effect that actually exists, leading to a false negative result (Cohen, 1988).
[8] Standard threshold indicating an 80% chance of detecting a true effect.
[9] Sufficiently large to be meaningful and noticeable, yet realistic for typical social science research contexts (Cohen, 1988)
[10] See Appendix B for more details on the implementation and results.

4. Findings

This chapter will present the findings from the experiment, providing an overview of the data collected and the data analysis applied to test the assumptions and the hypothesis to answer the empirical research questions.

4.1. Sample Distribution

After data collection and data cleaning, the final sample of respondents consists of 252 participants, divided into the two groups: the control group with 130 participants and the treatment group with 122 participants.

4.2. Descriptive Statistics - Demographic Variables

The following sections provide detailed demographic characteristics of the participants, including gender, age, income, and occupation distributions, supported by tables to improve data visualization.

4.2.1. Gender Distribution

The gender distribution across the overall group, control group, and treatment group reveals a balanced representation of males and females. In the overall group of 252 participants, there are 116 males (46.03%) and 132 females (53.97%). The control group, consisting of 130 participants, has 60 males (45.90%) and 70 females (54.10%). Similarly, the treatment group, which includes 122 participants, comprises 56 males (46.15%) and 66 females (53.84%). These distributions indicate a slight predominance of females across all groups.

Table 1: Descriptive Statistics - Demographic Variables (Gender)

Gender	Overall Group (N=252)		Control Group (N=130)		Treatment Group (N=122)	
	Count	*Percentage*	*Count*	*Percentage*	*Count*	*Percentage*
Male	116	46.03%	60	45.90%	56	46.15%
Female	132	53.97%	70	54.10%	66	53.84%

4.2.2. Age Distribution

The age distribution shows a diverse range of ages among participants. In the overall group, the largest age category is 45-54 years old, accounting for 30.16% of participants, followed by 18-24 years old at 23.41%. The control group mirrors this pattern, with 30.00% of participants in the 45-54 age range and 25.38% in the 18-24 range. The treatment group also has the highest representation in the 45-54 age category at 30.33%, with 21.31% in the 18-24 age group. This distribution suggests that the middle-aged group is the most represented across all segments, with young adults forming a significant portion.

Table 2: Descriptive Statistics - Demographic Variables (Age)

Age	Overall Group (N=252)		Control Group (N=130)		Treatment Group (N=122)	
	Count	*Percentage*	*Count*	*Percentage*	*Count*	*Percentage*
18-24	59	23.41%	33	25.38%	26	21.31%
25-34	33	13.10%	15	11.54%	18	14.75%
35-44	23	9.13%	11	8.46%	12	9.84%
45-54	76	30.16%	39	30.00%	37	30.33%
55-64	54	21.42%	29	22.31%	25	20.49%
65+	7	2.78%	3	2.31%	4	3.28%

4.2.3. Income Distribution

The income distribution highlights that the majority of participants fall within the middle-income brackets. In the overall group, 40.08% of participants earn between 25,000-59,000 €, followed by 26.19% earning between 10,000 - 25,000 €. The control group shows a similar trend, with 37.69% of participants in the 25,000-59,000 € range and 27.69% in the 10,000 - 25,000 € range. The treatment group reflects this pattern as well, with 42.62% in the 25,000-59,000 € bracket and 24.59% in the 10,000 - 25,000 € bracket. These figures suggest a concentration of participants in the moderate to high-income brackets.

Table 3: Descriptive Statistics - Demographic Variables (Income)

Income	Overall Group (N=252)		Control Group (N=130)		Treatment Group (N=122)	
	Count	*Percentage*	*Count*	*Percentage*	*Count*	*Percentage*
<10,000€	57	22.62%	32	24.62%	25	20.49%
10,000 - 25,000 €	66	26.19%	36	27.69%	30	24.59%
25,000- 59,000 €	101	40.08%	49	37.69%	52	42.62%
60,000+ €	28	11.11%	13	10.00%	15	12.30%

4.2.4. Occupation Distribution

The occupation distribution reveals that the majority of participants are employed in the private sector. In the overall group, 59.52% of participants work in the private sector, followed by 21.03% who are students. The control group has 58.46% of participants in the private sector and 19.23% as students, while the treatment group consists of 60.66% private sector employees and 22.95% students. This distribution indicates a significant representation of private sector employees across all groups, with students forming the next largest category.

Table 4: Descriptive Statistics - Demographic Variables (Occupation)

Occupation	Overall Group (N=252)		Control Group (N=130)		Treatment Group (N=122)	
	Count	*Percentage*	*Count*	*Percentage*	*Count*	*Percentage*
Student	53	21.03%	25	19.23%	28	22.95%
Private Sector	150	59.52%	76	58.46%	74	60.66%
Public Sector	26	10.32%	17	13.08%	9	7.37%
Self-employed	19	7.54%	11	8.46%	8	6.56%
Retired	4	1.59%	1	0.77%	3	2.46%

4.3. Descriptive Statistics - Behavioral Variables

In addition to the Demographic Variables, detailed statistics were performed also for Behavioral Variables, including past donation behavior, past participation in fundraising events, and future donation and participation intentions. The data is presented for the overall sample, as well as divided by control and treatment groups.

4.3.1. Past Donation Behavior

The Past Donation variable indicates the frequency of participants' past donations (it was codified on a scale from 1 to 5, with 1=Never and 5=More than once a year). The overall mean for Past Donation is 3.17 (SD = 1.19). In the control group, the mean is 3.08 (SD = 1.19), while in the treatment group, it is 3.26 (SD = 1.18).

Table 5: Descriptive Statistics - Behavioral Variables (Past Donation)

Past Donation	Overall Group (N=252)	Control Group (N=130)	Treatment Group (N=122)
Mean	3.17	3.08	3.26
Std Dev	1.19	1.19	1.18

4.3.2. Past Participation in Fundraising Events

The Past Participation variable measures the frequency of participants' past involvement in fundraising events (codified in the same way as the Past Donation variable). The question collecting data for this variable was showed only to respondents in the Treatment Group, thus the overall and Treatment Group results coincide, and no data was collected for the Control Group. The mean for Past Participation is 2.33 with a standard deviation of 1.19.

Table 6: Descriptive Statistics - Behavioral Variables (Past Participation)

Past Participation	Overall Group (N=122)	Control Group (N=0)	Treatment Group (N=122)
Mean	2.33	N/A	2.33
Std Dev	1.19	N/A	1.19

4.3.3. Future Donation Intentions

The Future Donation variable measures the likelihood of participants to donate in the future (codified on a scale from 1 to 5, with 1=Extremely Unlikely and 5=Extremely Likely). The overall mean for Future Donation is 3.84 (SD = 0.97). In the control group, the mean is 3.87 (SD = 0.97), while in the treatment group, it is 3.81 (SD = 0.98).

Table 7: Descriptive Statistics - Behavioral Variables (Future Donation)

Future Donation	Overall Group (N=252)	Control Group (N=130)	Treatment Group (N=122)
Mean	3.84	3.87	3.81
Std Dev	0.97	0.97	0.98

4.3.4. Future Participation Intentions

The Future Participation variable measures the likelihood of participants to participate in future fundraising events (the variable was codified similarly to the Future Donation variable). As for the Past Participation variable, the data was collected only for the Treatment Group and presents a mean of 3.33 with a standard deviation of 1.07.

Table 8: Descriptive Statistics - Behavioral Variables (Future Participation)

Future Participation	Overall Group (N=122)	Control Group (N=0)	Treatment Group (N=122)
Mean	3.33	N/A	3.33
Std Dev	1.07	N/A	1.07

In summary, the descriptive statistics of the behavioral variables indicate that the overall sample has a moderate frequency of past donations, with a mean of 3.17 on a 5-point scale, and relatively high future donation intentions, with a mean of 3.84. The control group shows similar patterns to the treatment group, with slightly lower means for past donations and slightly higher mean for future donation intentions.

4.4. Hypothesis testing

The following sections detail the hypothesis testing performed to address the research hypotheses.

4.4.1. Hypothesis 1

In order to test the hypothesis H1: "*When given the choice between a flexible and an earmarked donation, a higher proportion of donors will choose an earmarked donation*" the following procedure was applied.

From the data collected, the proportions of donation choices were calculated for the Control Group. Table 9 illustrates this distribution of donation choices. In particular, 43.08% of participants chose to make an Earmarked Donation (ED) while 56.92% chose the Flexible Donation (FD).

Table 9: Donation Choice - Control Group

Donation Choice	Control Group (N=130)	
	Count	*Percentage*
Earmarked Donation	56	43.08%
Flexible Donation	74	56.92%

From these results, we see that a higher percentage of donors chose the flexible option rather than the earmarked option, which does not support the Hypothesis 1.

To understand whether the preference for flexible donation is statistically significant, a Chi-Square test was conducted comparing the proportion of donors choosing flexible donations (FD) and earmarked donations (ED) in the control group. The Chi-Square test is useful to determine whether the observed proportions of donation choices (earmarked vs. flexible) differ significantly from what we would expect under the null hypothesis (which assumes no preference), testing whether the distribution of choices is due to chance or if there is a statistically significant preference for one type of donation.

Before running the Chi-Square test the assumptions have to be tested, which include: a test of the expected frequencies which have to be above 5; independence

of observations such that the choice made by one participant do not influence the choices of others; and the sample size should be sufficiently large to obtain more meaningful results.

Independence of observation was ensured in the experiment design and during the data collection process; the sample contains 130 observations which can be considered sufficiently large (also considering the power analysis run previously which resulted in a minimum required sample size of 66); the expected frequencies per category are calculated by dividing the total number of observations (130 – participants in the Control Group) by the number of categories (2 – ED and FD), as we are assuming equal preference for both type of donations, resulting in an expected frequency of 65 which is higher than 5. Thus, all the assumptions are met and the Chi-Square Test can be performed.

The Chi-Square Test statistic is calculated using the following formula:

$$X^2 = \sum \frac{(O_i - E_i)^2}{E_i}$$

where O_i represents the observed frequency and E_i the expected frequency for each donation type.

Table 10: Hypothesis 1 - Chi-Square Test

Test Hypothesis 1	Control Group (N=130)	
	Expected Frequency	*Observed Frequency*
Earmarked Donation	65	56
Flexible Donation	65	74
Chi-Square value	2.49	
p-value	0.114	

Table 10 summarizes the results of the analysis, from which we can derive that the p-value is not statistically significant (since it is higher than 0.05) and thus we cannot reject the null hypothesis that the proportion of earmarked and flexible donations is the same. Hence, although from the experiment results we observe a

higher number of donors choosing the flexible donation we cannot affirm that there is an actual preference for this type of donation relative to the earmarked one.

In conclusion, despite the hypothesis (H1) suggesting that a higher proportion of donors would prefer earmarked donations, the actual data show a contrary trend, with more donors favoring flexible donations. However, this observed difference was not statistically significant, meaning it could have occurred by chance rather than indicating a true preference.

4.4.2. Hypothesis 2

Further analysis was conducted on the data from the Treatment Group, calculating the proportions of donation choices (ED, FD and FE) and comparing results to the Control Group. Table 11 summarizes these results, highlighting the distribution of the different Donation Choices for the two groups. In particular, we see a clear difference in Earmarked Donation (43.08% vs 14.76%) and in Flexible Donation (56.92% vs 19.67%) between the Control Group and the Treatment Group, since in the Treatment Group 65.57% of respondents chose the Fundraising Event. Moreover, since choosing participation in a fundraising event leads to a flexible donation (the money from the tickets for the fundraising events are allocated to the all-purpose fund), a categorization of Fundraising Event into Flexible Donation was made to better grasp the change in overall flexible donations between the Control Group and the Treatment Group (a summary of these data is shown in Table 12). Looking at these overall statistics, it can be observed that overall Flexible Donation increases from 56.92% to 85.25% between the two groups.

Table 11: Donation Choice Distribution by Group (ED, FD, FE)

Donation Choice	Control Group (N=130)		Treatment Group (N=122)	
	Count	*Percentage*	*Count*	*Percentage*
Earmarked Donation	56	43.08%	18	14.76%
Flexible Donation	74	56.92%	24	19.67%
Fundraising Event	0	0.00%	80	65.57%

Table 12: Donation Choice Distribution by Group (FD = FD + FE)

Donation Choice	Control Group (N=130)		Treatment Group (N=122)	
	Count	*Percentage*	*Count*	*Percentage*
Earmarked Donation	56	43.08%	18	14.76%
Flexible Donation	74	56.92%	104	85.25%

Thus, from this first analysis, it seems that the hypothesis H2: "*The availability of fundraising events as an alternative donation option will decrease the proportion of donors choosing earmarked donations*" is supported by the results.

Similarly to the first hypothesis, the Chi-Square test is used to understand whether the difference in choices is statistically significant. It evaluates the association between the group (control vs. treatment) and the donation choice (earmarked donation vs. flexible donation vs. fundraising event), assessing whether the distribution of donation choices is independent of the group.

Before the application of the Chi-Square test, the assumptions criteria were evaluated and tested to ensure reliability of results: participants were randomly assigned to one of the two groups ensuring independence observations; the sample are sufficiently large; and the expected frequencies[11] are greater than 5.

Table 13: Hypothesis 2 - Chi-Square Test

Test Hypothesis 2	Control Group (N=130)		Treatment Group (N=122)	
	Expected	*Observed*	*Expected*	*Observed*
Earmarked Donation	38	56	36	18
Flexible Donation	51	74	47	24
Fundraising Event	41	0	39	80
Chi-Square value	124.90			
p-value	7.57e-28			

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[11] Expected Frequencies: Control Group: [38.17, 50.56, 41.27], Treatment Group: [35.83, 47.44, 38.73]

The Chi-Square test revealed a significant association between the group and donation choice (X^2 = 124.90, p < 0.001). This indicates that the introduction of fundraising events in the treatment group significantly influenced the distribution of donation choices.

In particular, the proportion of donors choosing earmarked donations was significantly lower in the treatment group (14.76%) compared to the control group (43.08%). Furthermore, a significant number of participants in the treatment group opted for fundraising events (65.57%), which were not available to the control group. This significant difference supports the hypothesis that the availability of fundraising events decreases the proportion of donors choosing earmarked donations.

It's important to note that the expected frequency calculations include theoretical values for all categories, even if one group did not have the option to choose a specific category (e.g., fundraising events in the control group). This is a limitation of the Chi-Square test in this context, but the significant result still indicates a strong association between group assignment and donation choice. To address this issue of expected frequencies for the fundraising event category in the control group, an additional Chi-Square test was conducted (after confirmation of assumptions[12]) combining flexible donations (FD) and fundraising events (FE) into a single category (FD) (as previously depicted in Table 12).

Table 14: Hypothesis 2 - Chi-Square Test (FD = FD + FE)

Test Hypothesis 2	Control Group (N=130)		Treatment Group (N=122)	
	Expected	*Observed*	*Expected*	*Observed*
Earmarked Donation	38	56	36	18
Flexible Donation	92	74	86	104
Chi-Square value	22.99			
p-value	1.63e-06			

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[12] Expected Frequencies: Control Group: [38.17, 91.83], Treatment Group: [35.83, 86.17]

The Chi-Square test for the combined categories also revealed a significant association between the group and donation choice (X^2 = 22.99, p < 0.001). The significant results from both analyses reinforce the robustness of the findings and provide strong evidence in support of Hypothesis 2, suggesting that providing as an additional option participation in fundraising events influences donor preferences and reduces the likelihood of choosing earmarked donations.

4.4.3. Hypothesis 3 and Hypothesis 4

Moving on, Hypothesis 3: "*Warm Glow is positively correlated to earmarking*" and Hypothesis 4: "*Warm Glow is positively correlated to the choice of participating in a fundraising event*", were tested by analyzing the Warm Glow scores in relation to the choice of earmarked donations (ED) and fundraising events (FE).

Table 15 summarizes the mean and standard deviation of Warm Glow scores for Earmarked Donation, Flexible Donation and Fundraising Event categories. These descriptive statistics provide a basic understanding of the central tendency and dispersion of Warm Glow scores for each donation choice. In particular, it can be observed that all three groups have a mean of around 4.4 on a 5-point scale, indicating ana average high Warm Glow for all donation choices.

Table 15: Warm Glow scores by Donation Choice

Warm Glow	Overall Group (N=252)		
	Mean	*Std*	*Count*
Earmarked Donation	4.43	0.78	74
Flexible Donation	4.36	0.82	98
Fundraising Event	4.40	0.84	80

To test differences in means a possible statistical method considered was ANOVA (Analysis of Variance), which compares the means of three or more groups to see if at least one group mean is different from the others. It is particularly useful when the data are normally distributed and variances across groups are equal. Before conducting the main analysis, the main underlying assumptions were tested to

ensure validity. It particular, the main assumptions to be met are normality of data and homogeneity of variance. Normality of data means that data should follow a normal distribution. This assumption is tested using the Shapiro-Wilk test, whose null hypothesis is that the data is normally distributed. Thus, obtaining a p-value lower than 0.05 would imply the rejection of the null hypothesis indicating a deviation from normality (not satisfying the assumption). On the other hand, the homogeneity of variance assumption requires that the variance (spread of scores) of the groups being compared are equal. To check this assumption, Levene's test is employed which tests the null hypothesis that the variances are equal (to satisfy the assumption the p-value should be higher than 0.05). Table 16 reports results from the assumptions tests.

Table 16: Hypothesis 3 and 4 – ANOVA Assumptions Tests

Assumptions tests	Shapiro-Walk test		Levene's test	
	statistic	*p-value*	*statistic*	*p-value*
Earmarked Donation	0.708	7.62e-11		
Flexible Donation	0.737	5.93e-12	0.136	0.873
Fundraising Event	0.711	3.00e-11		

From the assumptions analysis, it can be seen that normality assumptions are not satisfied since p < 0.05 for all groups. The Shapiro-Wilk test results hence indicate that the Warm Glow scores for ED, FD, and FE groups are not normally distributed. On the other hand, Levene's test p-value is greater than 0.05, satisfying the homogeneity of variance assumption.

Since normality distributions assumptions were not respected, the Kruskal-Wallis Test (a non-parametric alternative to ANOVA that does not assume a normal distribution) was chosen. This test is used to compare the median scores of three or more independent groups. The Kruskal-Wallis test results (reported in Table 17) show no significant difference in the median Warm Glow scores among the three groups (H = 0.301, p = 0.861). This indicates that the central tendency of Warm Glow scores is similar across the groups.

Table 17: Hypothesis 3 and 4 - Kruskal-Wallis Test

Test Hypothesis 3 and 4	Kruskal-Wallis Test
statistic	0.301
p-value	0.861

The overall analysis indicates that there is no significant difference in Warm Glow scores among donors choosing earmarked donations, flexible donations, and fundraising events. This suggests that, in general, Warm Glow does not vary significantly based on the type of donation chosen. Therefore, neither Hypothesis 3 (H3) nor Hypothesis 4 (H4) is supported by the data in this overall analysis.

To gain a clearer understanding, an additional analysis was run, narrowing the focus to compare only the earmarked donations (ED) and fundraising events (FE). Testing the assumptions for the independent sample t-test (which can be used to compare means of two independent groups, assuming normal distribution and homogeneity of variances), again the normality assumption was not met while the homogeneity of variances was satisfied (see Table 18). Thus, Mann-Whitney U Test was utilized. This test compares the median scores of two independent groups. It is the non-parametric equivalent of the independent samples t-test. The Mann-Whitney U test results (reported in Table 19) show no significant difference in Warm Glow scores between the ED and FE groups (U = 2985.5, p = 0.919).

Table 18: Hypothesis 3 and 4 – t-test Assumptions Tests

Assumptions tests	Shapiro-Walk test		Levene's test	
	statistic	*p-value*	*statistic*	*p-value*
Earmarked Donation	0.708	7.62e-11	0.062	0.803
Fundraising Event	0.711	3.00e-11		

Table 19: Hypothesis 3 and 4 – Mann-Whitney U Test

Test Hypothesis 3 and 4	Mann-Whitney U Test
statistic	2985.5
p-value	0.919

The focused analysis demonstrates that there is no significant difference in Warm Glow scores between donors choosing earmarked donations and those choosing fundraising events. This suggests that, when focusing specifically on these two choices, Warm Glow does not differ significantly. Therefore, we can conclude that neither Hypothesis 3 (H3) nor Hypothesis 4 (H4) is supported by the data.

4.5. Empirical Research Questions analysis

From the previous analysis, answers to the two empirical research questions presented in Chapter 1 (RQ4 and RQ5) can be formulated.

4.5.1. Research Question 4

The first empirical research question asked "*To what extent are donors willing to choose participation in a fundraising event rather than an earmarked donation?*".

Examining the distribution of donor choices between earmarked donations and participation in fundraising events across both the control and treatment groups (reported previously in Table 11), the analysis found that in the Control Group distribution of donation choices was respectively 43.08% for Earmarked Donation and 56.92% for Flexible Donation; while in the Treatment Group 14.76% chose the Earmarked Donation option, 19.67% the Flexible Donation and 65.57% the Fundraising Event. Figure 1 provides a visual representation of this proportions.

Figure 2: Distribution of Donation Choices by Group
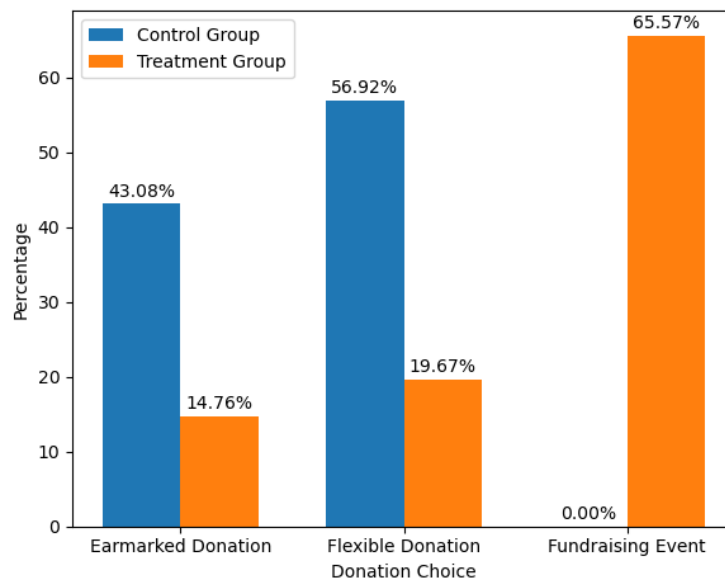
In the control group, participants could only choose between ED and FD. A higher proportion of participants chose FD over ED (although not statistically significant). While in the treatment group, where participants had the additional option to participate in a fundraising event (FE), a significant majority chose FE, while the proportion of ED choices decreased considerably.

The analysis reveals that donors show a strong preference for participating in fundraising events when given the option. Specifically, when the fundraising event option (FE) is available, the proportion of donors choosing earmarked donations (ED) decreases significantly. This finding is supported by the statistical results from the chi-square test, which showed a significant difference in donation choices between the control and treatment groups. In summary, the availability of a fundraising event option significantly influences donor behavior, leading to a marked decrease in the selection of earmarked donations and a strong preference for participation in fundraising events which increase overall percentage of flexible donations for the humanitarian organization.

4.5.2. Research Question 5

RQ5: "*To what extent do the factors influencing donors' utility change between earmarking and fundraising event participation?*"

From the analysis of Hypotheses 3 and 4, it resulted that there was no statistical difference between the scores of Warm Glow between the different Donation Choice groups (ED, FD, FE).

Additional analysis can be performed on the other perception variables to understand whether there is a significant difference in their values between the different donation choices. Following the same steps as H3 and H4 testing, the means and standard deviations of the Perception Variables (Control, Impact, Personal Benefit, Warm Glow, Self Esteem, Social Recognition) were compared between participants who chose ED and those who chose FE (summarized in Table 20). Figure 2 provides a visual representation of the score distribution for all Perception Variables between the two donation choice groups.

Table 20: Perception Variables scores by Donation Choice

Perception Variables	Earmarked Donations		Fundraising Events	
	Mean	*Std*	*Mean*	*Std*
Control	3.45	1.33	3.14	1.26
Impact	4.16	0.78	3.95	0.90
Personal Benefit	2.47	1.37	2.89	1.27
Warm Glow	4.43	0.78	4.40	0.84
Self Esteem	3.54	1.18	3.60	1.15
Social Recognition	2.84	1.31	2.69	1.13

Figure 3: Perception Variables score distribution by Donation Choice
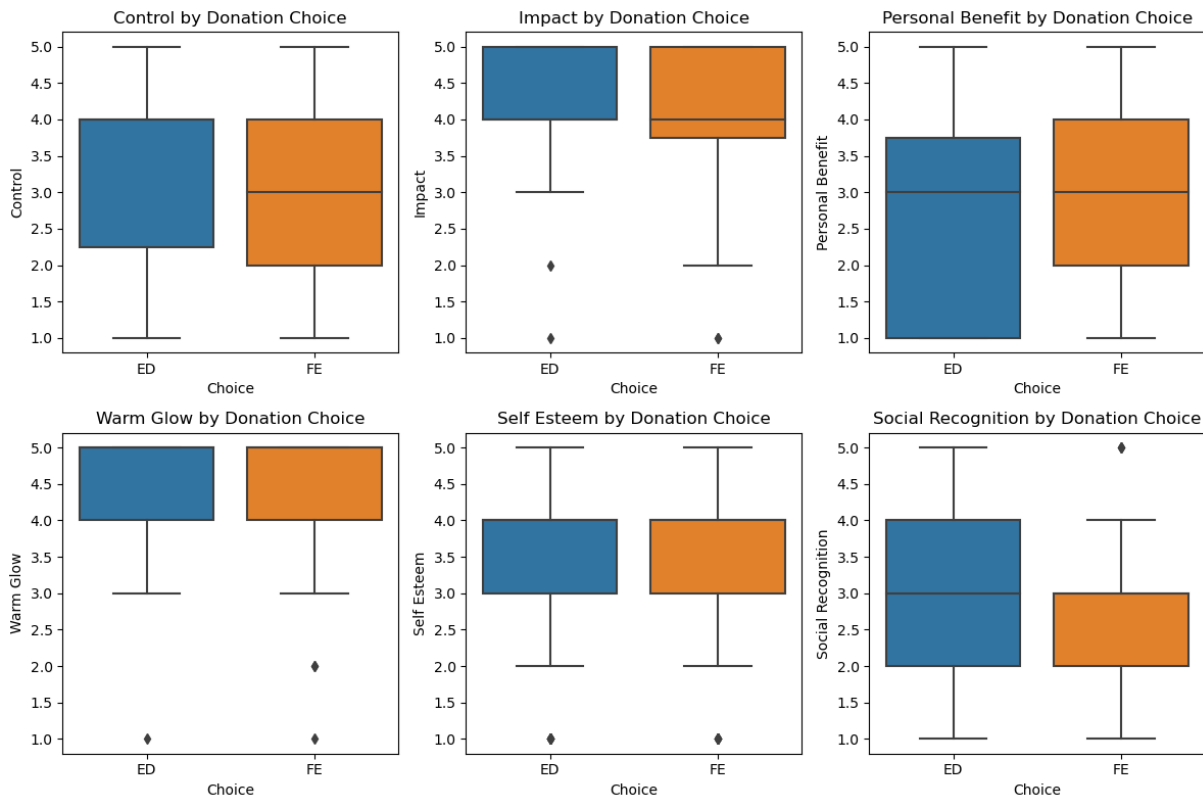
Results from the assumption testing were the following (presented in Table 21): the normality assumption was not supported (p-value lower than 0.05 for all variables), while the homogeneity of variances assumption was met by all variables (p-value higher than 0.05).

Table 21: Assumptions Tests

Normality Check	Earmarked Donations		Fundraising Events	
	statistic	*p-value*	*statistic*	*p-value*
Control	0.870	1.76e-06	0.911	3.49e-05
Impact	0.780	3.65e-09	0.831	3.91e-08
Personal Benefit	0.829	8.09e-08	0.896	8.44e-06
Warm Glow	0.708	7.62e-11	0.711	3.00e-11
Self Esteem	0.856	5.84e-07	0.857	2.84e-07
Social Recognition	0.886	6.78e-06	0.876	1.31e-06

Homogeneity of Variances	Levene's Test	
	statistic	*p-value*
Control	0.040	0.842
Impact	0.709	0.401
Personal Benefit	1.143	0.287
Warm Glow	0.062	0.803
Self Esteem	0.433	0.512
Social Recognition	2.777	0.098

Hence, the t-test could not be performed, instead the Mann-Whitney U Test was run to analyze differences between the two groups for all Perception Variables. From Table 22, it can be seen that there are no statistically significant differences between the Perception Variables for the two groups except for Personal Benefit which has a p-value (0.049) lower than 0.05, making it marginally statistically significant.

Table 22: Statistical Analysis – Mann-Whitney U Test

Median score differences	Mann-Whitney U Test	
	statistic	*p-value*
Control	3398.5	0.104
Impact	3346.0	0.129
Personal Benefit	2432.5	0.049
Warm Glow	2985.5	0.919
Self Esteem	2847.5	0.673
Social Recognition	3184.0	0.402

The analysis of the perception variables provides insights into the factors influencing donors' utility when choosing between earmarked donations (ED) and fundraising events (FE). The results indicate that perception of Control, Impact, Warm Glow, Self Esteem and Social Recognition do not vary significantly between donors choosing ED and those opting for FE. However, a significant difference in perception of Personal Benefit was found, with participants choosing FE perceiving a higher personal benefit (2.89) than those choosing ED (2.47).

In conclusion, the factors influencing donors' utility do exhibit some variation between earmarking and fundraising event participation. Specifically, the significant difference in personal benefit highlights the added value donors perceive in participating in fundraising events. However, the overall similarity in perceptions of control, impact, warm glow, self-esteem, and social recognition suggests that these factors are consistently valued across different donation options.

5. Discussion

This study aims to explore and understand the factors influencing donor behavior in the context of different donation options provided by humanitarian organizations. To achieve this objective, two primary empirical research questions were formulated:

RQ4: *To what extent are donors willing to choose participation in a fundraising event rather than an earmarked donation?*

RQ5: *To what extent do the factors influencing donors' utility change between earmarking and fundraising event participation?*

These empirical questions are designed to delve deeper into donors' preferences, especially when presented with various donation choices such as earmarked donations (ED), flexible donations (FD), and participation in fundraising events (FE). Understanding these preferences is crucial for humanitarian organizations to optimize their fundraising strategies and effectively engage with their donor base.

To address these empirical questions, the following four hypotheses were formulated:

H1: *When given the choice between a flexible and an earmarked donation, a higher proportion of donors will choose an earmarked donation.*

H2: *The availability of fundraising events as an alternative donation option will decrease the proportion of donors choosing earmarked donations.*

H3: *Warm glow is positively associated with earmarking.*

H4: *Warm glow is positively associated with the choice of participating in a fundraising event.*

The first two hypotheses (H1 and H2) were designed to investigate donor preferences when presented with different donation options and were tested using chi-square tests to examine the distribution of donation choices among donors. The latter two hypotheses (H3 and H4) focused on the psychological outcomes of donation choices, specifically the concept of warm glow—a positive emotional state derived from the act of giving. These hypotheses were tested by analyzing

donors' perceptions of warm glow and comparing them across different donation choices.

By systematically testing these hypotheses in the previous chapter, this study provides comprehensive insights into donor behavior, preferences, and possible motivations. This chapter will discuss the key findings, compare them with existing literature, and elaborate on their theoretical and managerial implications. Additionally, it will address the limitations of the study and propose directions for future research.

5.1. Theoretical Contributions

The analysis of donors' behavior revealed several important insights into donor preferences concerning earmarked donations (ED), flexible donations (FD), and participation in fundraising events (FE).

Firstly, contrary to Hypothesis H1, a higher proportion of donors opted for flexible donations over earmarked donations. This finding diverges from previous studies by Aflaki and Pedraza-Martinez (2016) and Fuchs et al. (2020), which suggested that donors prefer earmarked donations due to a desire for greater control over the use of their funds. However, our results align with the findings of Ozer et al. (2023), where a significantly higher percentage of donors chose flexible donations. Our study suggests that flexibility and trust in the organization's discretion in fund allocation may have a stronger appeal to donors. Bekkers and Wiepking (2011) also highlight that donors often seek to maximize the impact of their contributions, which may lead to a preference for flexible donations that allow organizations to allocate funds where they are most needed.

Nonetheless, the observed preference for flexible donations over earmarked donations was found to be not statistically significant, indicating that this trend might be due to chance or the specific sample of respondents who participated in this study. Further research with larger or different samples could provide further insights and more reliable results. In conclusion, the results regarding Hypothesis 1 are crucial for understanding donors' behavior in charitable giving. The lack of a significant preference for earmarked donations suggests that, absent other

influencing factors, donors might not have a strong inclination towards earmarked donations compared to flexible donations. This could be due to various reasons, such as a desire for the charity to have discretion in using the funds where they are most needed or a lack of specific preferences among donors regarding the allocation of their donations, which could also be due to the options provided in the experiment. Future research could delve deeper into the motivations driving donors' choices between earmarked and flexible donations, potentially incorporating qualitative methods to gain more nuanced insights.

Secondly, strong evidence was found that offering fundraising events as an alternative donation option can significantly alter donor preferences, reducing the proportion of donors opting for earmarked donations and increasing overall percentage of flexible donations. This result, which confirms Hypothesis 2, suggests that donors might be highly receptive to engaging in activities that offer a combination of personal involvement and charitable giving, aligning with their motivations for social interaction, personal achievement, and the enjoyment of contributing to a cause. The appeal of fundraising events can be attributed to several factors. First, such events often provide a platform for social interaction, which is a significant motivator for many donors. Sargeant & Woodliffe (2007) found that social ties and community involvement can strongly influence charitable giving. Fundraising events create opportunities for donors to connect with like-minded individuals, enhancing their sense of community and shared purpose. Second, fundraising events often incorporate elements of personal achievement and recognition, which can be powerful incentives (Bennett et al., 2007). The shift towards participation in fundraising events also aligns with the findings of Bhati & Hansen (2020), who noted that events providing personal benefits and psychological rewards, such as improved self-image and social recognition, can effectively attract donors. This conclusion is partially in line with this thesis results, for which a statistically significant difference was found in the perceived personal benefit between an earmarked donation (2.47) and fundraising event participation (2.89); however no statistically significant difference was found in donors' perception of self-esteem and social recognition between the earmarking choice and

participation in fundraising events, suggesting that they might not be correlated to the donation choice.

Further analysis on the perception variables found that no statistical differences were present also for control, impact, and warm glow (not supporting H3 and H4), implying that these factors do not vary significantly for the different donation choices (ED vs FE). In particular, the lack of significant differences in warm glow between donors participating in fundraising events and those choosing other donation options might indicate that the emotional benefits of giving are realized similarly across different types of donations. This could suggest that the act of giving itself, whether through monetary donations or participation in events, is sufficient to elicit a sense of personal satisfaction and warm glow. The study by Sargeant and Woodliffe (2007) supports this view, noting that the intrinsic rewards of giving can manifest in various forms, not necessarily contingent on the mode of donation. Furthermore, the findings imply that while fundraising events can attract donors through social and personal involvement, the warm glow effect might be uniformly experienced across different donation methods. This suggests that the motivational appeal of fundraising events might lie more in their ability to offer additional benefits such as social interaction, rather than significantly enhancing the emotional reward of giving. However, it is important to note that this thesis results might be influenced by the experiment questions design for which these perception variables values were collected using a single-item measure which could limit the correct measurement of this variables and the validity of data. Further research including multiple-item measurements for these variables could provide ulterior insights on the matter.

5.2. Managerial implications

From this study results, it was evident that the option to participate in fundraising events was preferred to earmarking donations, suggesting an effective overall increase in the proportion of flexible donations. Given the significant interest in fundraising events, organizations should focus on organizing events that offer personal involvement and tangible benefits to donors. These events could include charity runs, gala dinners, auctions, and other interactive activities. Providing

donors with the possibility to participate in an event could attract donations and increase overall flexible funds collected. To this end, online campaigns, social media engagement, and virtual events could reach a broader audience and facilitate easier donation processes.

It is important to note that fundraising events have organizational costs associated to them, reducing the possible marginality of donations collected, which have to be taken into account when calculating the expected benefits of these initiatives. A possible way to reduce the HO's expenditure and thus increase the profitability of the event, could be to engage with sponsors which could cover the operational costs.

Moreover, while most perception variables did not show significant differences, personal benefit was a key factor for fundraising events. Organizations should tailor their communication strategies to highlight the personal and social benefits of participating in fundraising events, as well as the overall impact of donations. Utilizing digital platforms to promote flexible donations and fundraising events is crucial.

5.3. Limitations

Despite the valuable insights provided by this study, several limitations must be acknowledged, which pave the way for future research directions.

One primary limitation is the sample size. While the achieved sample was sufficient for the conducted analyses, a larger sample size would provide more stable estimates and improve the generalizability of the results. Future studies should aim to recruit a more extensive and diverse sample to capture a broader range of donor behaviors and preferences.

Regarding the experiment design, the study relied on single-item measures for the perception variables, which can limit the reliability of the assessments. Using multiple items to measure each construct would improve internal consistency and provide a more robust evaluation of donor perceptions. Future research should employ multi-item scales to enhance the reliability and validity of the measurement instruments. Moreover, the pilot study conducted was relatively small. Conducting a more extensive pilot test with a larger and more diverse sample can help identify

and rectify potential issues with the survey items, ensuring that they are clearly understood and effectively measure the intended constructs.

Furthermore, the current study did not provide incentives to participants, which may have influenced their engagement and responses. Future research could incorporate incentives to analyze how they affect donation preferences and behaviors. The use of incentives in future research could increase reliability of results and gain a deeper understanding of donors' activation for the different donation choices.

5.4. Future research directions

This thesis paves the way for extensive additional research to deepen our understanding of donors' preferences between earmarked donations and fundraising events. Cross-cultural studies could compare donor behaviors globally, providing insights for tailoring fundraising strategies to different cultural contexts. Understanding these variations would enable organizations to adapt their approaches to different cultural preferences and behaviors, enhancing the effectiveness of their campaigns. Moreover, future research could explore how variations in donation amounts influence preferences, revealing more about donor generosity and commitment across different donation options. This would provide a comprehensive view of donor behavior, helping organizations to strategize effectively to maximize contributions.

Qualitative methods, such as in-depth interviews or focus groups, could uncover the motivations behind donors' choices between the different donation choices. These qualitative insights would add depth to the quantitative findings, offering a richer understanding of donor psychology. Additionally, analyzing demographic characteristics may identify traits correlated with specific donation choices, aiding in targeted fundraising efforts. This demographic analysis could help organizations tailor their appeals to different donor segments, making their campaigns more personalized and effective.

Investigating the impact of different types of fundraising events on donor preferences could identify the most effective events for increasing flexible

donations. Understanding which events appeal more to donors would enable organizations to focus their resources on the most impactful fundraising activities.

Future research should analyze how much donors are willing to give for the different donation options to understand the real impact of the preference for fundraising events on flexible donations. This analysis could reveal whether the attraction of fundraising events translates into increased funds collected for HOs relative to the earmarking option. Subsequently, further research could evaluate the costs and benefits of fundraising events to determine their viability as a strategy for increasing flexible donations for humanitarian organizations. This would provide insights into the financial and operational efficiency of such events, helping organizations decide if they are a worthwhile investment. Combining these research approaches will offer a comprehensive understanding of donor behavior and preferences, enabling more effective and targeted fundraising strategies for humanitarian organizations.

6. Conclusions

In conclusion, this study aimed to explore and understand the factors influencing donors' behavior when presented with different donation options by humanitarian organizations. By analyzing donor preferences for earmarked donations (ED), flexible donations (FD), and participation in fundraising events (FE), this research sought to gain insights into the impact of providing the option to participate in fundraising events on the proportion of flexible donations to humanitarian organizations.

The findings reveal a strong preference for fundraising events relative to earmarked donations and a subsequent increase in the percentage of overall flexible donations.

Moreover, results showed a higher perceived personal benefit for donors choosing fundraising event participation rather than an earmarked donation, suggesting that this might be a driver of this preference. No statistically significant difference was found for the other perception variables studied (control, impact, warm glow, self-esteem, and social recognition) suggesting that they do not vary between the different donation choices. Further research utilizing a stronger experimental design could be conducted to confirm these outcomes.

The study results propose that fundraising events might be an effective way for humanitarian organizations to increase the proportion of flexible funding received and thus suggest that humanitarian organizations should invest in these events. Additional research analyzing actual donated amounts for the different donation options is needed to understand the extent of event profitability.

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APPENDIX A: Experiment

Survey Flow

Block: Introduction (1 Question)

BlockRandomizer: 1 - Evenly Present Elements

> **Block: Control Group: Donation Preferences (3 Questions)**
> **Block: Treatment group: Donation Preferences (3 Questions)**

Block: Utility (1 Question)
Block: Past and future behavior (2 Questions for Control Group/4 Questions for Treatment Group)
Block: Demographics (4 Questions)

Page
Break

Start of Block: Introduction

Dear Participant,

Thank you for taking part in this experiment for my Master Thesis!
In the following sections you will be asked some questions about your donation preferences, as well as some demographic information.
All the answers you give will be collected anonymously and used only for study purposes.
I kindly ask you to answer as honestly as possible, as it will allow me to draw more accurate conclusions.

Your contribution is greatly appreciated,
Thank you in advance,
Francesca

End of Block: Introduction

In the next section you will be asked to imagine yourself in a scenario and make a donation decision between different options.
Read carefully, think about your true preference and what you would do in that situation.

There are no wrong answers.

Imagine you decide to contribute **10€** to the humanitarian organization **Save The Children** (which focuses on saving and improving vulnerable children lives all around the world).

The organization has the following two programs:
- **Survival:** focuses on decreasing children death rate by providing medicines and curing them from normally preventable illnesses, in areas where healthcare is not highly developed;
- **Emergency:** focuses on timely response after a crisis (war or natural disaster) providing life-saving supplies, as well as helping children recover and thrive after the crisis.

You are presented with the following three options:

- **Donate to the Survival program**: all the funds donated will be used for this specific program
- **Donate to the Emergency program**: all the funds donated will be used for this specific program
- **Donate to the all-purpose fund**: Save The Children will decide on their own discretion how to use the donation

Select the option you prefer most

○ Donate to the Survival program

○ Donate to the Emergency program

○ Donate to the all-purpose fund

In the next section you will be asked to imagine yourself in a scenario and make a donation decision between different options.
Read carefully, think about your true preference and what you would do in that situation.

There are no wrong answers.

Imagine you decide to contribute **10€** to the humanitarian organization **Save The Children** (which focuses on saving and improving vulnerable children lives all around the world).

The organization has the following two programs:
- **Survival:** focuses on decreasing children death rate by providing medicines and curing them from normally preventable illnesses, in areas where healthcare is not highly developed;
- **Emergency:** focuses on timely response after a crisis (war or natural disaster) providing life-saving supplies, as well as helping children recover and thrive after the crisis.

To raise funds, Save The Children is currently organizing the following **fundraising events**:
- a **raffle**: winning donors will receive a prize (e.g. new iphone or bike)
- a **5 km charity run**
- a **fundraising aperitivo**

You can choose whether to make an online donation or participate in one of these fundraising events selecting one of the following options:

Make a 10€ online donation
- **Donate to the Survival program:** all the funds donated will be used for this specific program
- **Donate to the Emergency program**: all the funds donated will be used for this specific program
- **Donate to the all-purpose fund**: Save The Children will decide on their own discretion how to use the donations

Buy a ticket for a fundraising event (the tickets for all the events cost 10€ which will go to the all-purpose fund)
- **Participate to the raffle**
- **Participate to the 5 km charity run**
- **Participate to the fundraising aperitivo**

Select the option you prefer most

Online Donation

○ Donate to the Survival program

○ Donate to the Emergency program

○ Donate to the all-purpose fund

Buy a ticket for a fundraising event

○ Participate to the raffle

○ Participate to the 5 km charity run

○ Participate to the fundraising aperitivo

Given your decision, how much do you agree with the following statements?

	Strongly disagree	Somewhat disagree	Neither agree nor disagree	Somewhat agree	Strongly agree
I have control over my donation	○	○	○	○	○
My donation will make an impact	○	○	○	○	○
I will get a personal benefit	○	○	○	○	○
It makes me feel good	○	○	○	○	○
It improves my self-esteem	○	○	○	○	○
It improves my social recognition/reputation	○	○	○	○	○

How often have you **donated to a charity** in the past?

○ Never

○ Once or twice

○ A few times

○ About once a year

○ More than once a year

How often have you **participated in a fundraising event for a charity** in the past? [*only shown to the treatment group*]

○ Never

○ Once or twice

○ A few times

○ About once a year

○ More than once a year

How likely are you to **donate to a charity** in the future?

○ Extremely unlikely

○ Somewhat unlikely

○ Neither likely nor unlikely

○ Somewhat likely

○ Extremely likely

How likely are you to **participate in a fundraising event for a charity** in the future? [*only shown to the treatment group*]

○ Extremely unlikely

○ Somewhat unlikely

○ Neither likely nor unlikely

○ Somewhat likely

○ Extremely likely

End of Block: Past and future behavior

Start of Block: Demographics

What's your gender?

○ Male

○ Female

○ Non-binary

○ Prefer not to say

How old are you?

○ Under 18

○ 18-24 years old

○ 25-34 years old

○ 35-44 years old

○ 45-54 years old

○ 55-64 years old

○ 65+ years old

○ Prefer not to say

What is your annual net income?

○ Less than 10,000 €

○ 10,000 - 25,000 €

○ 25,000 - 59,000 €

○ 60,000 € or more

○ Prefer not to say

What is your occupation?

○ I work in the private sector

○ I work in the public sector

○ I am self-employed

○ I am a student

○ I am unemployed

○ I am retired

○ Prefer not to say

End of Block: Demographics

APPENDIX B: Data Analysis

1. Power analysis to check for sample size

import statsmodels.stats.power as smp

 # Define parameters

effect_size = 0.5 # Medium effect size as per Cohen's conventions

alpha = 0.05 # Significance level

power = 0.80 # Desired power

ratio = 1 # Ratio of treatment to control group sizes

 # Perform power analysis

analysis = smp.TTestIndPower()

sample_size_control = analysis.solve_power(effect_size=effect_size, alpha=alpha, power=power, ratio=ratio)

print(f"Required sample size for control group: {sample_size_control:.2f}")

*print(f"Required sample size for treatment group: {sample_size_control * ratio:.2f}")*

Result: Required sample size per group: 65.86

2. Power analysis to check power obtained

import statsmodels.stats.power as smp

 # Define parameters

effect_size = 0.5 # Medium effect size as per Cohen's conventions

alpha = 0.05 # Significance level

n1 = 130 # Sample size for control group

n2 = 122 # Sample size for treatment group

 # Perform power analysis

analysis = smp.TTestIndPower()

achieved_power = analysis.solve_power(effect_size=effect_size, nobs1=n1, alpha=alpha, ratio=n2/n1, alternative='two-sided')

print("Achieved power: " + str(achieved_power))

Result: Achieved power: 0.976780421569759

3. Chi-Square Test for H1

```
import scipy.stats as stats
# Observed frequencies
observed = [56, 74]
# Expected frequencies
total_observed = sum(observed)
expected = [total_observed / 2, total_observed / 2]
# Chi-square test
chi2_stat, p_val = stats.chisquare(f_obs=observed, f_exp=expected)
# Output the results
print(f"Chi-square statistic: {chi2_stat}")
print(f"P-value: {p_val}")
if p_val < 0.05:
    print("Reject the null hypothesis: There is a significant difference in donation preferences.")
else:
    print("Fail to reject the null hypothesis: There is no significant difference in donation preferences.")
```

Result:

Chi-square statistic: 2.4923076923076923;

P-value: 0.11440386714766129;

Fail to reject the null hypothesis: There is no significant difference in donation preferences.

4. Chi-Square Test for H2

4.1. Test with ED, FD and FE

```
import pandas as pd
from scipy.stats import chi2_contingency
# Define the observed frequencies
observed = [[56, 74, 0], [18, 24, 80]]
# Perform the Chi-Square test
chi2, p, dof, expected = chi2_contingency(observed)
# Output the results
chi2, p, dof, expected
print(f"Chi-square statistic: {chi2_combined}")
print(f"P-value: {p_combined}")
```

print(f"Exected Frequencies: {expected_combined}")

if p_combined < 0.05:

    print("Reject the null hypothesis: There is a significant difference in donation preferences.")

else:

    print("Fail to reject the null hypothesis: There is no significant difference in donation preferences.")

Result:

Chi-square statistic: 22.99392436629496

P-value: 1.625141884353231e-06

Exected Frequencies: [[38.17460317 91.82539683], [35.82539683 86.17460317]]

Reject the null hypothesis: There is a significant difference in donation preferences.

4.2. Test with FD and FE combined

import pandas as pd

from scipy.stats import chi2_contingency

 # Observed frequencies for combined flexible donations and fundraising events

observed_combined = [[56, 74], [18, 104]]

 # Perform the Chi-Square test

chi2_combined, p_combined, dof_combined, expected_combined =

chi2_contingency(observed_combined)

 # Output the results

chi2_combined, p_combined, dof_combined, expected_combined

print(f"Chi-square statistic: {chi2_combined}")

print(f"P-value: {p_combined}")

print(f"Exected Frequencies: {expected_combined}")

if p_combined < 0.05:

    print("Reject the null hypothesis: There is a significant difference in donation preferences.")

else:

    print("Fail to reject the null hypothesis: There is no significant difference in donation preferences.")

Result:

Chi-square statistic: 22.99392436629496

P-value: 1.625141884353231e-06

Exected Frequencies: [[38.17460317 91.82539683], [35.82539683 86.17460317]]

Reject the null hypothesis: There is a significant difference in donation preferences.

5. Hypothesis 3 and 4 testing – Overall Analysis (FD, ED, FE)

5.1. Assumptions check

import pandas as pd

import scipy.stats as stats

import statsmodels.api as sm

import matplotlib.pyplot as plt

import seaborn as sns

 # Load data

file_path = 'MTFPP.xlsx'

df = pd.read_excel(file_path)

 # Assumptions Testing

 # Normality (Shapiro-Wilk test)

print('normality test results')

normality_tests = df.groupby('Choice')['Warm Glow'].apply(lambda x: stats.shapiro(x))

print(normality_tests)

 # Homogeneity of Variances (Levene's test)

levene_test = stats.levene(df[df['Choice'] == 'ED']['Warm Glow'],

df[df['Choice'] == 'FD']['Warm Glow'],

df[df['Choice'] == 'FE']['Warm Glow'])

print(f"Levene's test: {levene_test}")

Result:

normality test results

Choice

ED   (0.707687497138977, 7.616070968330391e-11)

FD   (0.7371538281440735, 5.930281005844806e-12)

FE   (0.7112973928451538, 2.999881246190661e-11)

Levene's test: LeveneResult(statistic=0.1363708867304522, pvalue=0.872584087315936)

5.2. Statistical analysis - Kruskal-Wallis Test

#Run Kruskal-Wallis Test

kruskal = stats.kruskal(df[df['Choice'] == 'ED']['Warm Glow'],

df[df['Choice'] == 'FD']['Warm Glow'],

df[df['Choice'] == 'FE']['Warm Glow'])

print(f"Kruskal-Wallis: {kruskal}")

Result:

Kruskal-Wallis: KruskalResult(statistic=0.30058454173017873, pvalue=0.8604564533184271)

6. Hypothesis 3 and 4 testing – Focused Analysis (ED, FE)

6.1. Assumptions check

import pandas as pd

import scipy.stats as stats

import matplotlib.pyplot as plt

import seaborn as sns

 # Filter the data to include only ED and FE choices

df_filtered = df[df['Choice'].isin(['ED', 'FE'])]

 # Filter data for ED and FE

ed_data = df[df['Choice'] == 'ED']['Warm Glow']

fe_data = df[df['Choice'] == 'FE']['Warm Glow']

 # Shapiro-Wilk Test for Normality

shapiro_ed = stats.shapiro(ed_data)

shapiro_fe = stats.shapiro(fe_data)

print(f"Shapiro-Wilk Test for ED: {shapiro_ed}")

print(f"Shapiro-Wilk Test for FE: {shapiro_fe}")

 # Levene's Test for Homogeneity of Variances

levene_test = stats.levene(ed_data, fe_data)

print(f"Levene's test: {levene_test}")

 # Levene's Test for Homogeneity of Variances

levene = stats.levene(df_filtered[df_filtered['Choice'] == 'ED']['Warm Glow'],

*   df_filtered[df_filtered['Choice'] == 'FE']['Warm Glow'])*

print(f"Levene's test: {levene}")

Result:

Shapiro-Wilk Test for ED: ShapiroResult(statistic=0.707687497138977, pvalue=7.616070968330391e-11)

Shapiro-Wilk Test for FE: ShapiroResult(statistic=0.7112973928451538, pvalue=2.999881246190661e-11)

Levene's test: LeveneResult(statistic=0.06185610711777614, pvalue=0.8039217049560958)

6.2. Statistical analysis - Mann-Whitney U Test

 # Run Mann-Whitney U Test

mannwhitney = stats.mannwhitneyu(df_filtered[df_filtered['Choice'] == 'ED']['Warm Glow'],

*   df_filtered[df_filtered['Choice'] == 'FE']['Warm Glow'])*

print(f"Mann-Whitney U Test: {mannwhitney}")

Result:

Mann-Whitney U Test: MannwhitneyuResult(statistic=2985.5, pvalue=0.9187201145955345)

7. Perception Variables analysis

7.1. Descriptive Statistics

import pandas as pd

import numpy as np

import scipy.stats as stats

 # Load the dataset

df = pd.read_excel("MTFPP.xlsx')

 # Filter the data for the relevant groups

ed_data = df[df['Choice'] == 'ED']

fe_data = df[df['Choice'] == 'FE']

 # Define the perception variables

perception_vars = ['Control', 'Impact', 'Personal Benefit', 'Warm Glow', 'Self Esteem', 'Social Recognition']

 # Calculate descriptive statistics

ed_means = ed_data[perception_vars].mean()

ed_std = ed_data[perception_vars].std()

fe_means = fe_data[perception_vars].mean()

fe_std = fe_data[perception_vars].std()

 # Print descriptive statistics

print("Earmarked Donation (ED) Descriptive Statistics:")

print("Means:\n", ed_means)

print("Standard Deviations:\n", ed_std)

print("\nFundraising Event (FE) Descriptive Statistics:")

print("Means:\n", fe_means)

print("Standard Deviations:\n", fe_std)

Result:

Earmarked Donation (ED) Descriptive Statistics:

Means:

Control	3.445946
Impact	4.162162
Personal Benefit	2.472973
Warm Glow	4.432432
Self Esteem	3.540541
Social Recognition	2.837838

Control	1.325636
Impact	0.776840
Personal Benefit	1.367159
Warm Glow	0.777792
Self Esteem	1.184248
Social Recognition	1.314065

Fundraising Event (FE) Descriptive Statistics:

Means:

Control	3.1375
Impact	3.9500
Personal Benefit	2.8875
Warm Glow	4.4000
Self Esteem	3.6000
Social Recognition	2.6875

Standard Deviations:

Control	1.260337
Impact	0.898663
Personal Benefit	1.272830
Warm Glow	0.835903
Self Esteem	1.153969
Social Recognition	1.131748

7.2. Assumptions check

 # Conduct the Shapiro-Wilk test for normality

print("\nShapiro-Wilk Test for Normality:")

for var in perception_vars:

*   print(f"{var} - ED: {stats.shapiro(ed_data[var])}, FE: {stats.shapiro(fe_data[var])}")*

 # Conduct Levene's test for homogeneity of variances

print("\nLevene's Test for Homogeneity of Variances:")

for var in perception_vars:

*   print(f"{var}: {stats.levene(ed_data[var], fe_data[var])}")*

Result:

Shapiro-Wilk Test for Normality:

Control - ED: ShapiroResult(statistic=0.8698852062225342, pvalue=1.7647865888648084e-06),

FE: ShapiroResult(statistic=0.9105205535888672, pvalue=3.487767025944777e-05)

Impact - ED: ShapiroResult(statistic=0.7799248695373535, pvalue=3.6514509194063294e-09), FE: ShapiroResult(statistic=0.8309475779533386, pvalue=3.913004675837328e-08)

Personal Benefit - ED: ShapiroResult(statistic=0.8285993337631226, pvalue=8.093946490816961e-08), FE: ShapiroResult(statistic=0.8961930274963379, pvalue=8.442165380984079e-06)

Warm Glow - ED: ShapiroResult(statistic=0.707687497138977, pvalue=7.616070968330391e-11), FE: ShapiroResult(statistic=0.7112973928451538, pvalue=2.999881246190661e-11)

Self Esteem - ED: ShapiroResult(statistic=0.8558281660079956, pvalue=5.836279228788044e-07), FE: ShapiroResult(statistic=0.8571549654006958, pvalue=2.8368123139443924e-07)

Social Recognition - ED: ShapiroResult(statistic=0.8858888745307922, pvalue=6.775539532100083e-06), FE: ShapiroResult(statistic=0.8755955100059509, pvalue=1.3062320931567228e-06)

Levene's Test for Homogeneity of Variances:

Control: LeveneResult(statistic=0.039651696932511686, pvalue=0.8424292545769385)

Impact: LeveneResult(statistic=0.7085182605687338, pvalue=0.4012585156435383)

Personal Benefit: LeveneResult(statistic=1.142987324505943, pvalue=0.2867168419691827)

Warm Glow: LeveneResult(statistic=0.06185610711777614, pvalue=0.8039217049560958)

Self Esteem: LeveneResult(statistic=0.43288451364994746, pvalue=0.5115721532357007)

Social Recognition: LeveneResult(statistic=2.7770674750443063, pvalue=0.09768248162077284)

7.3. Statistical Analysis – Mann-Whitney U Test

 # Conduct Mann-Whitney U test since normality assumption is violated

print("\nMann-Whitney U Test:")

for var in perception_vars:

print(f"{var}: {stats.mannwhitneyu(ed_data[var], fe_data[var])}")

Result:

Mann-Whitney U Test:

Control: MannwhitneyuResult(statistic=3398.5, pvalue=0.10442696816064462)

Impact: MannwhitneyuResult(statistic=3346.0, pvalue=0.12888046611746246)

Personal Benefit: MannwhitneyuResult(statistic=2432.5, pvalue=0.04902462667725702)

Warm Glow: MannwhitneyuResult(statistic=2985.5, pvalue=0.9187201145955345)

Self Esteem: MannwhitneyuResult(statistic=2847.5, pvalue=0.6725680107626771)

Social Recognition: MannwhitneyuResult(statistic=3184.0, pvalue=0.4016655068884608)