ADVANCING PEER-TO-PEER FUNDRAISING RESEARCH: CONCEPTUAL AND EMPIRICAL INSIGHTS FROM MULTI-ACTOR PERSPECTIVES

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„Jede Erfahrung hat ihr magisches Element“

Hermann Hesse

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Kapitel 1: Synopse

Advancing Peer-To-Peer Fundraising Research: Conceptual and Empirical Insights from Multi-Actor Perspectives

Problemstellung

Laut repräsentativer Studien des Stifterverbands für die Deutsche Wirtschaft e.V. und des Deutschen Spendenrats e.V. gelten Geldspenden von Privatpersonen auch im Jahr 2023 als eine essenzielle Säule im Finanzierungsmix von Nonprofit-Organisationen in Deutschland (Corcoran, 2024; Schubert et al., 2023). Durch den systematischen Einsatz verschiedener Aktivitäten (Fundraising) zielen Nonprofit-Organisationen darauf ab, diese Zielgruppe zu akquirieren und zu binden und somit den langfristigen Erfolg der Organisation sicherzustellen (Helmig & Boenigk, 2019). Per Definition von Urselmann (2018) ist hierfür insbesondere eine „konsequente Ausrichtung an den Bedürfnissen der Ressourcenbereitsteller" (S. 1) von Bedeutung. In den letzten Jahren hat insbesondere die Konvergenz der sogenannten SMAC-Technologien (sozial, mobil, Analytik und Cloud-Computing) das Bedürfnis von potenziellen Spendenden verändert hinsichtlich der Art und Weise wie sie Informationen über Nonprofit-Organisationen bzw. Zwecke erhalten, sich an ihnen beteiligen und mit Nonprofit-Organisationen kommunizieren wollen (Breeze et al., 2023; Burnett et al., 2023; Legner et al., 2017). Es ist vermehrt der Wunsch nach mehr Autonomie, Flexibilität und Effizienz sichtbar sowie die steigende Bereitschaft, sich aktiv an der Leistungserstellung der Organisation zu beteiligen (Alexander et al., 2018; Fehrer et al., 2020). Anstelle der persönlichen Kontaktaufnahme entwickeln Spendende die grundlegende Erwartung eines digitalen Spendenprozesses (Bhati & McDonnell, 2020). Dies geht nicht nur mit der Anforderung an eine schnelle und sichere Abwicklung von Spenden einher, sondern auch der Echtzeit-Kommunikation und Transparenz über verschiedene Kanäle hinweg (Brunett et al., 2023). Diese externen Umweltveränderungen erfordern von Nonprofit-Organisation eine Neubewertung ihrer Fundraisingansätze.

In diesem Zuge hat in den letzten Jahren das Online-Fundraising im Fundraisingportfolio von Nonprofit-Organisationen erheblich an Bedeutung gewonnen. In dieser Verbindung ist ein beobachtbarer Trend im Nonprofit-Sektor das Peer-to-Peer-Fundraising (Hessekiel, 2022). In diesem Ansatz mobilisieren Nonprofit-Organisationen private Individuen, die über ihr privates soziales Netzwerk im Namen der Nonprofit-Organisation Spenden sammeln (Chapman et al., 2019). Individuelle Fundraisende und Spendende werden in diesem Kontext als Peers (zu Deutsch Gleichgesinnte) bezeichnet. Peer-to-Peer Fundraising erfolgt größtenteils über digitale Spendenplattformen, die es den Peer-Fundraisenden erlauben, individuelle Spendenseiten zu erstellen. Somit verlassen sich die Nonprofit-Organisationen nicht auf eigene Marketingmaßnahmen oder professionelle Fundraisende, sondern auf organisationsunabhängige private Individuen. Dies ermöglicht Nonprofit-Organisationen einen kostengünstigen Zugang zu einem großen Pool von Erstspendenden, die durch Marketingaktivitäten der Organisation alleine nicht

erreichbar gewesen wären (Chapman et al., 2019; Saxton & Wang, 2014). Gleichzeitig bietet diese Form des Fundraisings durch das Einbeziehen privater Peer-Fundraisenden das Potenzial, die Beziehung zu diesen langfristig zu stärken.

Aktuelle Beispiele für Peer-Kampagnen sind der Wings For Life World Run 2024, der in Zusammenhang mit der Wings for Life Stiftung für Rückenmarksspenden steht, und der jährlich stattfindende American HeartWalk der American Heart Association. Im Rahmen dieser Laufevents können sich Individuen auf einer Online-Plattform als Fundraisende registrieren und eine individuelle Spendenseite erstellen. Innerhalb kürzester Zeit ist diese Seite zugänglich, so dass ihr soziales Netzwerk Spenden leisten kann. Alle gesammelten Spenden gehen an die Nonprofit-Organisation, die Absender der Kampagne ist. Zu vergleichbaren Peer-Kampagnen gehören der "Race for Life" von Cancer Research UK und der "Memory Walk & Jog" von Dementia Australia Limited in Australien.

Smith et al. (2015) argumentieren, dass Peer-to-Peer-Fundraising von der "Macht der persönlichen Beziehungen" (S. 1064) zwischen Peer-Fundraisenden und Peer-Spendenden profitiert. Im Vergleich zu traditionellen Fundraising Ansätzen, bringt die Peer-to-Peer-Fundraising-Dynamik einige einzigartige Charakteristika mit sich (Bhati & McDonnell, 2020; Sargent, 2001). Ein erstes Spezifikum ist die Beteiligung von Peer-Fundraisenden. Peer-Fundraisende sind Individuen, die selbstständig und geografisch verteilt, unabhängig der organisatorischen Hierarchien oder Verpflichtungen agieren. Die Beziehung zwischen Peer-Fundraisenden und Spendenden unterscheidet sich von den Beziehungen zwischen Mitarbeitenden der Nonprofit-Organisation (professionellen Fundraisenden) aufgrund der persönlichen Nähe. Die beteiligten Peers stammen in erster Linie aus dem engen persönlichen privaten Umfeld, häufig Familienmitglieder, Freunde oder Arbeitskollegen und somit bestehen meist enge zwischenmenschliche Beziehungen (Jones, 2022). Daraus resultiert ein zweites Spezifikum, die Verschiebung des Fokus von der dyadischen Beziehung zwischen Nonprofit-Organisation und Spendenden hin zu einem Multi-Akteurs Geflecht bestehend aus mindestens drei Akteuren (Chapman et al., 2022): der Nonprofit-Organisation, den privaten Individuen, die als Fundraisende tätig werden, und den Spendenden. Durch die Einführung des dritten Akteurs (Peer-Fundraiser) (Breeze et al., 2023) findet die Kommunikation und finanzielle Transaktion nicht mehr zwischen der Nonprofit-Organisation und den Spendenden statt, sondern vorranging zwischen dem Fundraisenden und den Spendenden. Dies führt nachweislich zu einer untergeordneten Rolle der Nonprofit-Organisation (Chapman et al., 2019) und des sozialen Zwecks selbst (Smith et al., 2015) in der Spendenentscheidung. In diesem Sinne betonen Scharf & Smith (2016) die *motivationale Dualität*

von Spenden, wobei Peer-Spendende motiviert sind, an den Fundraisenden zu spenden, während die Fundraisenden motiviert sind, an die Nonprofit-Organisation zu spenden. Eine weitere Charakteristik des Peer-to-Peer Fundraisings liegt darin, dass für die Verbreitung der Kampagnen seitens der Nonprofit-Organisation zentrale Plattformen eingerichtet werden, über die die Abwicklung der finanziellen Transaktionen und die Kommunikation stattfinden (Saxton & Wang, 2014). Diese Verlagerung in den Onlineraum erhöht nicht nur die Reichweite und den Einfluss von Fundraising-Bemühungen, sondern führt auch eine besondere Dynamik ein, die es Peers ermöglicht, die Spenden der anderen zu beobachten und darauf zu reagieren. Der Zugang zu sozialen Informationen kann eine kollektive Wirkung haben und das Spendenverhalten von Gleichaltrigen beeinflussen (Smith et al., 2015; van Teunenbroek et al., 2020). Letztlich ermöglichen Peer-to-Peer Fundraising Kampagnen potenziell jedem, die Rolle der Fundraisenden und Spendenden in einer Kampagne einzunehmen. In diesem Zusammenhang wird in der Literatur auch von „Role Fluidity" (Rollenflexibilität) gesprochen, da Peers in der einen Transaktion Spendende und in der anderen Transaktion Fundraisende seien können (Lin et al., 2019).

Die skizzierten Besonderheiten des Peer-to-Peer Fundraisings gehen mit einer zunehmenden Komplexität in der Unternehmenspraxis einher, die die Notwendigkeit einer sorgfältigen Planung von Peer-to-Peer Kampagnen verdeutlicht. Bis dato werden im akademischen (Breeze et al., 2023; Chapman et al., 2019) und praktischen Diskurs (Hessekiel, 2022) vermehrt Vorteile des Ansatzes insbesondere hinsichtlich der Kosteneffizienz, der Wettbewerbsfähigkeit (Harrison & Thronton, 2022) und des Spendenrücklaufs betont. Dennoch sind die neuen Herausforderungen nicht zu vernachlässigen. Diese manifestieren sich insbesondere in der Schaffung geeigneter technologischer Infrastrukturen (Costello & Walker Reczek, 2020), dem Anwerben, Ausbilden und Binden geeigneter Peer-Fundraisenden (Webb, 2017) sowie die Sicherstellung der finanziellen Ressourcen über den Zeitraum einer einzelnen Kampagne hinaus. Letztendlich ist eine der zentralen Herausforderungen zu verstehen, was Peer-Spendende zur Spende bewegt (Bekkers & Wiepking, 2011).

Vor diesem Hintergrund wird in den letzten Jahren auch in der wissenschaftlichen Nonprofit-Management Literatur vermehrt zu Peer-to-Peer Fundraising geforscht (Castillo et al., 2014; Chapman et al., 2019; Scharf & Smith, 2016). Die Notwendigkeit wird insbesondere darin begründet, dass theoretische und konzeptionelle Erkenntnisse, die auf der dyadischen Beziehung zwischen Nonprofit-Organisation und Spendenden basieren (Bekkers & Wiepking, 2011; Sargeant, 2001), Spendenverhalten im Kontext von Peer-to-Peer Fundraising nicht vollständig erklären können. Die dyadische Betrachtungsweise lässt Einflüsse durch andere Akteure wie Peer-Fundraisende oder die Spendenplattform außen vor. Trotz ersten Erkenntnissen bezüglich

der Erfolgsfaktoren auf Ebene des Peer-Fundraisers und der Plattform (Chapman et al., 2019; Priante et al., 2021; Sepehri et al., 2021), sowie den Spendenmechanismen auf Ebene der Peer-Spendenden, befindet sich das Forschungsfeld zu Peer-to-Peer Fundraising insgesamt in einem frühen Forschungsstadium. Konzeptualisierungen sind fragmentiert und empirische Erkenntnisse begrenzt.

Insgesamt bleibt festzuhalten, dass das Interesse an Peer-to-Peer Fundraising als strategisches Element im Fundraising in Wissenschaft und Praxis kontinuierlich zunimmt. Aus Perspektive der Nonprofit-Praxis ist neben der Frage von Erfolgsdeterminanten der einzelnen Kampagnen, des weiteren von Interesse, ob Nonprofit-Organisationen Peer-to-Peer Fundraising nutzen können, um langfristige Bindungen mit neuen Spendenden zu etablieren. Aus wissenschaftlicher Perspektive stellt Peer-to-Peer Fundraising einen einzigartigen Kontext im Fundraising dar, der bisher theoretisch und empirisch untererschlossen ist (Priante et al., 2021). Das vorliegende Dissertationsvorhaben setzt an dieser Stelle an und zielt darauf ab, einen Beitrag zu einem verbesserten Gesamtverständnis zu Peer-to-Peer Fundraising in der Nonprofit-Management Literatur zu leisten unter Einbezug der verschiedenen Perspektiven der beteiligten Akteure. Im Zuge dessen soll die Peer-to-Peer Fundraising Forschung konzeptionell weiterentwickelt und zeitgemäße empirische Evidenz geliefert werden. Ein besonderer Fokus liegt darauf, was den individuellen Erfolg der Peer-Fundraisenden und somit den übergeordneten Erfolg der Kampagne determiniert, wie und durch wen Peer Spendende in einer Kampagne zur Spende motiviert werden, und ob Nonprofit- Organisationen Peer Spendende nach ihrer Spende binden können.

Im Folgenden wird hierfür zunächst der Diskurs zu Peer-to-Peer Fundraising in der Forschungslandschaft verortet. Anschließend wird der aktuelle Stand der Forschung zusammengefasst, aus dem Forschungslücken herausgearbeitet werden, die die Ziele der Arbeit bestimmen. Die fünf Studien, die Teil der vorliegenden Dissertation sind, werden daraufhin in einem übergeordneten konzeptionellen Rahmen dargelegt, der als Erweiterung der Literatur zu Peer-to-Peer Fundraising angesehen werden kann, indem er Erkenntnisse zu den verschiedenen Perspektiven der Akteure integriert. Zum Abschluss der Synopse erfolgt eine Kurzzusammenfassung der einzelnen Studien und die Ableitung von Forschungsimplikationen sowie Implikationen für das Fundraising-Management.

Verortung und Anschlussfähigkeit des Peer-to-Peer Fundraising Diskurses in der Literatur

Der Diskurs zu Peer-to-Peer Fundraising lässt sich in den größeren Kontext der Nonprofit-Fundraising Forschung verorten, die sich seit Jahrzehnten mit dem Erwirtschaften von Spenden (Fundraising) befasst (Bhati & Hansen, 2020). In diesem Literaturstrang haben sich im Laufe der Zeit eine Vielzahl verschiedener Forschungsschwerpunkte herausgebildet. Ein Großteil der Forschungsarbeiten konzentriert sich dabei auf spenderzentrierte Ansätze, welche die Spendenmotivationen von Spendenden untersuchen (Bekkers & Wiepking, 2011; Boenigk & Helmig, 2013; Sargeant, 2001, 2014). Da eine Vielzahl von Gründen unterstellt wird, aus denen Personen spenden, werden verschiedene theoretische Ansätze aus den Bereichen der Verhaltenspsychologie (Andreoni, 1990; Andreoni et al., 2017), den Sozialwissenschaften (Dale et al., 2018) und den Wirtschaftswissenschaften (Becker et al., 2019; Karlan & List, 2007) herangezogen, um das Spendenverhalten zu erklären. Ein weiterer Forschungsschwerpunkt befasst sich mit der Rolle der Fundraisenden im Zuge der Professionalisierung des Fundraising-Berufs (vgl. Breeze & Jollymore, 2017; Breeze et al., 2023; Chapman et al., 2022). Abschließend findet sich ein Forschungsschwerpunkt, der sich auf das Management von Fundraising-Prozessen konzentriert. Studien dieses Schwerpunktes erforschen häufig in experimentellen Untersuchungen verschiedene Managementpraktiken oder Fundraising-Techniken hinsichtlich ihrer Effizienz (Kamatham et al., 2021; Merchant et. al, 2010).

Studien weisen vermehrt darauf hin, dass Spendenverhalten sehr kontextabhängig ist (Chapman et al., 2022; Wiepking et al., 2021). Vor dem Hintergrund der skizzierten Kontextspezifika im Peer-to-Peer Fundraising, ist mit der Veröffentlichung der Studie von Meer (2011) zu Peer-Spendenverhalten, ein eigenes Subforschungsfeld entstanden. Dieses befasst sich mit ähnlichen Fragestellungen wie die Fundraisingforschung und schließt an diese an (Chapman et al., 2019; Scharf & Smith, 2016; Meer, 2011).

Der Forschungsdiskurs zum Peer-to-Peer Fundraising ist neben der Nonprofit-Fundraising Literatur auch in Disziplinen der **Dienstleistungsforschung** anschlussfähig, insbesondere in dem Forschungsstrang, der im Zuge der Entwicklung von Peer-to-Peer-Geschäftsmodellen wie AirBnB und Uber entstanden ist (Lin et al., 2019). Darüber hinaus weist der Diskurs Parallelen mit dem Forschungsstrang der Sozialpsychologie auf, der sich insbesondere dem Zusammenhang von altruistischem Verhalten und sozialen Beziehungen widmet (Jones, 2022). Dennoch muss festgehalten werden, dass sich die Dienstleistungsforschung schwerpunktmäßig auf einen reziproken Austausch von Gütern oder Dienstleistungen und Geldleistungen konzentriert, während die **Sozialpsychologie** meist altruistisches Verhalten innerhalb einer sozialen Situation

ohne organisationalen Kontext untersucht. Während bestehende Erkenntnisse und Theorieansätze aus diesen Bereichen Teilaspekte des Peer-to-Peer Fundraisings zu erklären vermögen, erscheinen sie jedoch nicht ausreichend, um das Phänomen in seiner Gesamtheit zu erfassen.

Stand der Forschung zu Peer-to-Peer Fundraising

Der Stand der Forschung zu Peer-to-Peer Fundraising ist bisher wenig fortgeschritten. Er umfasst sechst Kernstudien. Das erste Forschungspapier zum Thema entstand im Jahr 2011 im Journal of Public Economics (Meer, 2011). Seitdem haben sich sowohl Studien in den Disziplinen der Verhaltensökonomie (Scharf & Smith, 2016; Smith et al., 2015), die die Entscheidungsfindung im Kontext von Peer-to-Peer-Interaktionen untersucht, als auch Studien im Nonprofit Management (Chapman et al., 2019; Priante et al., 2021) vermehrt mit Peer-to-Peer Fundraising auseinandergesetzt. Dies erfolgt unter Berücksichtigung verschiedener Forschungsschwerpunkte, initialer theoretischer Ansätze, empirischen Herangehensweisen und in verschiedenen Länderkontexten.

Überblick der Forschungsschwerpunkte

In den bisherigen Studien spiegeln sich zwei Forschungsschwerpunkte wider, die sich auch in der erweiterten Nonprofit-Fundraising Forschung gezeigt haben.

Der erste Forschungsschwerpunkt umfasst Beiträge, die sich auf die **Peer-Spendenden** fokussieren. Diese thematisieren primär die zugrundeliegenden Mechanismen, die zu der Entscheidung einer Spende im Rahmen einer Peer-to-Peer Kampagne führen (Meer, 2011; Smith et al., 2015). Von besonderem Interesse ist somit die Erklärung der individuellen Spendenentscheidung bzw. die Höhe der Peer-Spenden. Im Mittelpunkt der Diskussion zu den Spendenmechanismen steht die Beziehung, in der die Peer-Spendenden zum Peer-Fundraisenden stehen (Scharf & Smith, 2016).

In Kontrast hierzu, liegt der zweite Forschungsschwerpunkt auf den **Peer-Fundraisenden** und folglich auf der Erklärung von persönlichen Spendenerfolgen. Unter diesem Gesichtspunkt befassen sich Studien hauptsächlich mit der Analyse von Zusammenhängen zwischen den persönlichen Charakteristika der Fundraisenden (z.B. Geschlecht, Sympathie), den von ihnen durchgeführten Aktivitäten (z.B. individualisierte Ansprachetexte) und der Höhe der von ihnen erwirtschafteten Spendensumme (Chapman et al., 2019; Priante et al., 2021; Sepehri et al., 2021).

Stand der theoretischen und konzeptionellen Peer-to-Peer Fundraising Forschung

Eine gezielte Analyse der Peer-to-Peer Fundraising Literatur zum Stand der theoretischen Fundierung führt zu vier zentralen Erkenntnissen.

(1) Eine konkrete Theorie des Peer-to-Peer Fundraisings existiert nicht. Auch isolierte theoretische Fundierungen in diesem Bereich können gegenwärtig als begrenzt angesehen werden.

(2) Lediglich zwei Studien verweisen in ihren Arbeiten auf eine konkrete Theorie (Meer, 2011; Priante et al., 2021). Im Falle von Meer (2011) führt der Autor die *Theorie der zwischenmenschlichen Interaktionen* von Becker (1974) sowie das *Modell der Konformität* von Bernheim (1994) an, um den Einfluss von sozialem Druck auf das Spendenverhalten zu erklären. Die Theorien postulieren, dass wohltätiges Handeln von dem Wunsch motiviert sein kann, Geringschätzung anderer zu vermeiden (Becker, 1974) oder soziale Anerkennung durch ein der sozialen Norm entsprechendes Verhalten zu erlangen. Priante und Kolleg:innen (2021) verweisen im theoretischen Teil ihrer Studie auf die *Ressource Mobilization Theory* (Jenkins, 1983), um die Bedeutung des Beziehungsaufbaus von Peer-Fundraisenden untereinander für deren individuellen Spendenerfolg zu belegen. Demnach sind organisatorische Netzwerke wichtige Treiber für Gruppendruck aber auch Austauschplattformen, die Individuen dazu motivieren, sich aktiv am kollektiven Handeln zu beteiligen. Dies wird jedoch nicht weiter ausgeführt.

(3) Forschungsstrangübergreifend lässt sich feststellen, dass Studien im weiteren Sinne einen gemeinsamen konzeptionellen Konsens aufzeigen und eine soziale Netzwerkperspektive einnehmen. Studienübergreifend postulieren Autor:innen, dass die Dynamik des sozialen Netzwerkes eine entscheidende Rolle bei der Motivation zur Spende einnimmt (Chapman et al., 2019; Priante et al., 2021; Smith et al., 2015) und sich die Struktur des Netzwerkes von bisherigen Fundraisingformen unterscheidet. Smith und Kolleg:innen (2015) suchen eine mögliche Erklärung für das Spendenverhalten von Peers in der Verfügbarkeit sozialer Informationen. Die soziale Netzwerkstruktur ermöglicht es, die Spenden von Gleichgesinnten sichtbar zu machen, wodurch potenzielle Spendende motiviert werden, ebenfalls zu spenden oder ihre Spendenhöhe anzupassen. Dennoch muss auch an dieser Stelle festgestellt werden, dass keine konkreten theoretischen Bezüge hergestellt werden, sondern die soziale Netzwerkperspektive vielmehr als Beschreibung der Ausgangssituation im Peer-to-Peer Fundraising herangezogen wird.

(4) Letztendlich dominiert in vorliegenden Forschungsarbeiten die konzeptionelle Herangehensweise sich an den bewährten Spendenmechanismen im Fundraising (Bekkers & Wiepking, 2011) zu orientieren und deren Existenz im Peer-to-Peer Fundraising zu überprüfen oder zu

erweitern (Chapman et al., 2019; Scharf & Smith et al., 2016). So ziehen Chapman und Kolleg:innen vier etablierte Mechanismen zur Erklärung des Erfolges von Fundraisenden heran und liefern empirische Evidenz für deren Existenz: (1) der Spendenaufruf an sich, (2) die Reputation, (3) die Wirksamkeit der Spende, sowie (4) die Identifikation mit der Organisation. Ähnlich untersuchen Castillo und Kolleg:innen (2014) den Mechanismus von „Kosten und Nutzen" (Bekkers & Wiepking, 2011) und zeigen dessen Legitimität im Peer-to-Peer Fundraising. Scharf und Smith (2016) hingegen stützen sich auf den theoretischen Diskurs zum „Altruismus" und erweitern das Konzept zu „Relationalem Altruismus", sprich dem selbstlosen Wunsch von Peer-Spendenden, die Peer-Fundraisenden bei der Erreichung der Fundraisingziele zu unterstützen. Aus der Sozialpsychologie abgeleitet konkludiert Meer (2011), dass Gruppendruck ein der Peer Spende zugrunde liegender Mechanismus ist.

Tabelle 1. Kurzzusammenfassung Stand der Forschung.

Autor:in	**Forschungs-schwerpunkt**	**Theoretische-/Konzeptio-neller Ansatz**	**Empirischer Ansatz**
Priante et al. (2021)	Peer Fundraisende	Soziale Netzwerk Perspektive Resource mobilization theory (Jenkins, 1983)	Untersuchung beobachtbarer Kampagnendaten von 3.295 Peer-Fundraiser:innen, die an der Movember-Kampagne 2014 auf Twitter teilgenommen haben
Chapman et al. (2019)	Peer Fundraisende	Spendenmechanismen: Werben, Reputation, Wirksamkeit der Spende und Identifikation (Bekkers & Wiepking, 2011)	Analyse Umfrage- und Verhaltensdaten von 1.647 Peer-to-Peer-Fundraising-Teilnehmenden Fun-Run Event Australien
Scharf & Smith (2016)	Peer Spendende	Altruismus (Bekkers & Wiepking, 2011)	Beobachtbare Daten von 35.571 individuellen Online-Spendenseiten im Vereinigten Königreich
Smith et al. (2015)	Peer Spendende	Soziale Informationen (Frey & Meier, 2004)	Beobachtbare Daten von 12.000 Spendenseiten auf Plattformen in Verbindung mit dem London Marathon
Castillo et al. (2014)	Peer Spendende	Spendenmechanismen: Kosten und Nutzen (Bekkers & Wiepking, 2011), Incentivierung (Karlan & List, 2007).	Feld Experiment mit kooperierender Nonprofit-Organisation und 5.587 Spendenbeobachtungen
Meer (2011)	Peer Spendende	Theorie der zwischenmenschlichen Interaktionen (Becker, 1974) Modell der Konformität (Bernheim, 1994)	Archivdaten von 18.060 Alumni einer großen staatlichen Universität

Stand der empirischen Peer-to-Peer Fundraising Forschung

Bestehende Studien im Forschungsfeld Peer-to-Peer Fundraising konzentrieren sich auf die empirische Untersuchung. Auch hier zeigen sich zentrale Erkenntnisse.

(1) Der Fokus der empirischen Untersuchungen liegt abhängig des Forschungsschwerpunkts entweder auf der Erklärung der individuellen Spendensumme (Meer, 2011; Scharf & Smith, 2016) oder der Erklärung des realisierten Gesamtbetrages durch den Peer-Fundraisenden (Chapman et al., 2019; Priante et al., 2021).

(2) In der Peer-to-Peer Fundraising Literatur findet eine Verlagerung der methodischen Vorgehensweise von Umfragestudien hin zu beobachtbaren Kampagnendaten statt. Somit können Studien das tatsächliche Spendenverhalten untersuchen. Dieser Wandel ist insbesondere auf die Verlagerung finanzieller Transaktionen auf Online-Plattformen zurückzuführen, die Forschenden eine bessere Zugänglichkeit zu den Daten ermöglicht. Beispielsweise haben Priante und Kolleg:innen (2021) Twitter-Daten von 3295 Individuen analysiert, die online als Peer-Fundraisende an der Movember-Kampagene 2014 in den USA teilgenommen haben. Smith und Kolleg:innen (2015) greifen auf Daten der beiden größten Spendenplattformen im Rahmen des London Marathon 2010 im Vereinigten Königreich zurück: Justgiving (www.justgiving.co.uk) sowie Virgin Money Giving (http://uk.virginmoneygiving.com/giving/). Die Studie von Chapman und Kolleg:innen ist eine der Wenigen, die Umfragedaten und beobachtbare Daten kombiniert, indem sie die Teilnehmenden eines australischen Fun-Run-Events, die über eine Online-Plattform Spenden sammelten, befragen und Charakteristika der Plattform miteinbeziehen.

(3) Trotz des jungen Alters des Forschungsfeldes, wurden Forschungsvorhaben bereits in einer nennenswerten Varietät an Länderkontexten durchgeführt. Bestehende Erkenntnisse erstrecken sich auf die USA (Meer, 2011; Priante et al., 2021), das Vereinigte Königreich (Scharf & Smith, 2016) und Australien (Chapman et al., 2019).

(4) Durch die Verschiebung der methodischen Herangehensweise stehen empirische Forschungsarbeiten in diesem Feld vor allem in der Kritik der Generealisierbarkeit der Befunde, da diese sehr kampagnenspezifisch sind. Darüber hinaus sind beobachtbare Daten oft von einem sogenannten „*Omitted Variable Bias*“ betroffen.

Zusammenfassung der Erkenntnisse

Eine umfassende Betrachtung der zentralen Erkenntnisse im Forschungsfeld zeigt, dass die Forschenden zum Konsens gelangen, dass die Peer-Fundraisende selbst bzw. die Beziehung zum Peer-Fundraisenden den entscheidenden Treiber des Spendenverhaltens darstellt.

Auf Spendenden-Ebene weist Meer (2011) in seiner Studie basierend auf Informationen von 18.060 Alumni einer großen Universität in den Vereinigten Staaten nach, dass Peer-Spendende eine höhere Spendenbereitschaft zeigen und einen höheren Durchschnittssumme spenden, wenn sie (1) von Peer-Fundraisenden, mit denen sie enge soziale Bindungen haben, und (2) mit denen sie Ähnlichkeiten in Bezug auf soziodemographische Merkmale haben, um Unterstützung gebeten werden. Smith und Kolleg:innen (2015) haben herausgefunden, dass Peer-Fundraisende hauptsächlich Spenden von Personen erhalten, die bereits Teil ihres bestehenden sozialen Netzwerks aus Freund:innen, Familie und Kolleg:innen sind. Scharf und Smith (2016) liefern in ihrer Studie empirische Erkenntnisse zur Beschaffenheit des Netzwerkes. Die Ergebnisse indizieren, dass die Größe des sozialen Online-Netzwerks von Peer-Fundraisenden positiv mit einer höheren Anzahl von Spenden verbunden ist, jedoch mit geringeren Spendenbeträgen pro Spende. Die Autoren argumentieren, dass dieser "*Netzwerkeffekt*" unter anderem darauf zurückzuführen seien könnte, dass Spenden in kleineren Gruppen stärkere soziale Beziehungen aufweisen.

Auf Ebene der Peer-Fundraisenden demonstrieren Chapman und Kolleg:innen (2019) in ihrer Studie empirische Evidenz dafür, dass Peer-Fundraisende, ihren Erfolg maßgeblich selbst beeinflussen können. Insbesondere, diese, die sich stärker mit der ausgewählten Organisation identifizieren, generieren mehr Spenden, da sie (1) eine höhere Anzahl an Maßnahmen zur Spendenwerbung ergreifen, (2) ihr persönliches Engagement stärker signalisieren, (3) die Wirksamkeit der Organisation signalisieren, und (4) ein höheres Ziel anstreben. Die Tatsache, dass es für den Spendenerfolg wichtiger ist, persönliches Engagement zu zeigen als die Wirksamkeit der Organisation, nennen sie „*Champion Effekt*“. Priante und Kolleg:innen (2021) bestätigen, dass Peer-Fundraisende, die an Online-Spendengruppen teilnehmen und eine moderate Zentralität auf Twitter einnehmen, höhere Spendenbeträge sammeln. Auch demonstrieren sie, dass persönliche Eigenschaften der Fundraisenden wie das Geschlecht, Einkommen, und Kampagnenerfahrung einen positiven Einfluss auf den Erfolg als Fundraisende hat.

Forschungslücken und Ziele der Arbeit

Der Überblick zum Stand der Forschung weist darauf hin, dass trotz ersten wertvollen Forschungspapieren der entstehende Peer-to-Peer Fundraising Forschungsstrang noch theoretisch, konzeptionell und empirisch fragmentiert ist. Gleichzeitig ist zu konstatieren, dass trotz der eindeutigen Verortung des Diskurses in der traditionellen Fundraisingliteratur, deren vorwiegend dyadische Betrachtungsweise die Komplexität der Peer-to-Peer Dynamiken durch die hin-

zukommenden Akteure nicht in Gänze zu erklären vermag (Breeze, 2023). Trotz des Bewusstseins über die veränderten Anforderungen an Peer-to-Peer Fundraising, kann das spezifische Wissen, das sich explizit auf diesen Bereich bezieht, als begrenzt angesehen werden. Die vorliegende Dissertation setzt hier an und weist als übergeordnetes Ziel aus, eine Weiterentwicklung des Gesamtverständnisses der Peer-to-Peer Fundraisingforschung auf konzeptioneller und empirischer Ebene zu leisten, indem bestehende Forschungslücken aus Perspektive der drei Hauptakteure adressiert werden.

Die Perspektive der Peer-Fundraisenden

Eine erste Forschungslücke bezieht sich auf die bislang konzeptionell wenig ausgeprägten Auseinandersetzung mit den Ursachen für den Erfolg einer Peer-to-Peer Kampagne aus Perspektive der Peer-Fundraisenden. Die Mehrheit der wissenschaftlichen Studien zum (Peer-) Fundraising zielt auf die Erklärung der Motivation auf Ebene der Spendenden ab (Bekkers & Wiepking, 2011). Die Tätigkeit des Fundraisings – das Bitten um Spenden - wird bis dato hauptsächlich als eine Ursache für das Spenden behandelt, indem es als initialer Auslöser einer Spende gesehen wird (Bekkers & Wiepking, 2011; Bennett, 2023). Insofern präsentiert die bisherige Forschung eine sehr vereinfachte Darstellung und stellt Fundraising als eine universal-technische Aufgabe von Organisationen bzw. individuellen Fundraisenden dar (Breeze, 2023), die eine Reaktion bei Spendenden auslöst unabhängig der Art zu fragen (Alborough & Hansen, 2022). In anderen Worten, ein differenziertes Verständnis über verschiedene Strategien oder Fundraisingtechniken, die in Verbindung mit dem persönlichen Erfolg der fundraisenden Einheit stehen, bleibt weitestgehend unbeachtet, obwohl Studien zeigen, dass die Art der Aufforderung der Spende sowohl die Wahrscheinlichkeit als auch die Höhe der Spende voraussagt (Andreoni et al., 2017).

Dies ist insbesondere im Peer-to-Peer Fundraising kritisch zu bewerten, da die Wichtigkeit des Peer-Fundraisenden als Intermediär zwischen Organisation und dem eigenen privaten Umfeld als sehr hoch einzuschätzen ist. Der bereits skizzierte Literaturüberblick zeigt, dass sich in der jüngeren Vergangenheit bereits zwei Studien aus Perspektive der Peer-Fundraisenden mit der Erklärung deren individuellen Spendenerfolg auseinandergesetzt, indem sie einzelne Erfolgsfaktoren getestet haben (Chapman et. al, 2019; Priante et al., 2021). Aus forschungsmethodischer Sicht kann jedoch konstatiert werden, dass bestehende empirische Ansätze erfolglose Fundraisende (Fundraisende, die keine Spende einnehmen) aus ihrer Untersuchung ausschließen. Laut Ebrahim und Rangan (2014) führt die Ignoranz von Nullergebnissen zu einem Verlust

an Erklärungsbeitrag, in diesem Fall in Bezug auf die Beziehung zwischen Fundraisingmaßnahmen und Spendenerfolgen (Fan-Osula et al., 2018; Niebuur et al., 2019; Piersma et al., 2017).

Vor diesem Hintergrund ist *das erste Ziel der Arbeit* die Schaffung erster konzeptioneller Grundlagen zur Erklärung von Erfolg auf Ebene der Peer-Fundraisenden unter Berücksichtigung der Gegenüberstellung von Erfolg und Misserfolg (siehe Kapitel 2). Dabei reagiert die Arbeit auf den Ruf nach Forschung, der die bis dato konzeptionelle und empirische Basis bemängelt und Fundraisende als „vernachlässigte Einheit" beschreibt (Alborough & Hansen, 2022; Breeze & Jollymore, 2017).

Perspektive der Peer-Spendenden

Eine zentrale Erkenntnis aus dem Stand der Forschung zu Peer-to-Peer Fundraising ist, dass in den vorliegenden Forschungsarbeiten der konzeptionelle Ansatz dominiert, sich an den bewährten Spendenmechanismen im Fundraising (Bekkers & Wiepking, 2011; Boenigk & Helmig, 2013) zu orientieren und ihre Anwendbarkeit im Peer-to-Peer Fundraising zu untersuchen. Es ist jedoch davon auszugehen, dass sich die Motivation hinsichtlich einer Spende von Organisationsspendenden und Peer-Spendenden angesichts der skizzierten Besonderheiten maßgeblich unterscheiden. Die Peer-to-Peer Fundraising Forschung hat somit bisher eine verengte Perspektive eingenommen und die vorliegende Dissertation sieht weiteren Forschungsbedarf in Bezug auf die theoretische und empirische Untersuchung von Spendenmechanismen, die sich aus der Peer-to-Peer Dynamik ergeben.

Ein erster Anhaltspunkt in der einschlägigen Peer-to-Peer Fundraisingliteratur ist die implizite Annahme, dass engere Beziehungen zwischen Peer-Fundraisenden und Peer-Spendenden zu mehr Spenden führen (Scharf & Smith, 2016; Smith et al., 2015). In dieser Hinsicht offenbart der aktuelle Forschungsstand jedoch eine Forschungslücke, da dieser Zusammenhang weder theoretisch gestützt noch empirisch ausreichend geprüft wurde. Mit Ausnahme der Studie von Meer (2011) tendieren bestehende Studien dazu, primär das Bestehen einer Beziehung zu erfassen. Es ist jedoch anzunehmen, dass die Intensität solcher Beziehungen variiert, insbesondere unter der Berücksichtigung, dass Peer-Fundraisende und Peer Spendende in verschiedensten Verhältnissen zueinanderstehen (Familienmitglieder, Freunde, Arbeitskollegen, etc.).

Einen zweiten Anhaltspunkt bietet die Studie von Böttger und Kolleg:innen (2017), die sich mit Peer Interaktionen in einem Konsument:innenkontext auseinander setzt. Die Autor:innen kontextualisieren Inspiration von Peers für Peers im Rahmen von Plattformen wie Pinterest als

Treiber von Konsument:innenverhalten. Interessanterweise findet sich die Diskussion zu Inspiration als Motivation von Freiwilligen ebenfalls in zwei Studien im Nonprofit-Management wieder (Liang et al., 2016; Nordstrom et al., 2022), wird aber bisher nicht weiter aufgegriffen.

Vor diesem Hintergrund ist das *zweite Ziel* der vorliegenden Dissertation weitere Spendenmechanismen basierend aus Erkenntnissen zu Peer-to-Peer Dynamiken zu konzeptualisieren und ihre Bedeutung in der Forschung zum Nonprofit-Management empirisch nachzuweisen. Dabei stützen sich die Studien in Kapitel 3 und 5 insbesondere auf Theorien aus der (Sozial-)Psychologie.

Perspektive der Nonprofit-Organisationen

Angelehnt an die Auseinandersetzung in Forschung und Praxis hinsichtlich des kurzfristigen Nutzens von Peer-to-Peer Fundraising (Hessekiel, 2022) als gewinnbringende Finanzierungsquelle, stellt sich die Frage nach dem langfristigen Nutzen solcher Kampagnen. Innerhalb des aktuellen Peer-to-Peer Fundraising Diskurses ist Forschung in Bezug auf die strategische Überlegung, Peer-Spendende über die Peer-Spende hinaus an die Nonprofit-Organisation zu binden, noch nahezu vollständig abwesend. Vielmehr steht im Zentrum bis dato, die finanzielle Transaktion im Rahmen der Kampagne (Chapman et al., 2019). Die Vernachlässigung der Forschung und der Praxis zu Neugewinnungs-, und Bindungspotenzialen kann vor dem Hintergrund des stetig steigendenden Wettbewerbsdruckes im Nonprofitsektor (Harrison & Thornton, 2022; Schubert et al., 2023) und der Herausforderung der Kaltakquise von Spendenden (Helmig & Boenigk, 2019) als gravierende Forschungslücke angesehen werden. Zudem steht dies im Kontrast zum bestehenden Trend im Nonpofit-Sektor, Fundraising nicht nur als transaktionsorientierten Ansatz zu betrachten, sondern das Eingehen einer Beziehung mit Spendenden zu forcieren und diese somit zu regelmäßigen Geldgebenden zu entwickeln (Helmig & Boenigk, 2019). Daran anknüpfend scheint es lohnenswert, sich Studien aus dem (Blutspende-) Marketing anzuschließen. Mit dem Ziel ressourcenschonend die richtigen Personen zielgerecht ansprechen zu können (Burnett, 2023), fokussieren sich diese auf die Erforschung der Vorhersagen von Bindungspotenzialen auf individueller Ebene (Lockstone-Binney et al., 2022; Rupp et al., 2014; Shehu et al., 2015).

Vor dem Hintergrund ist das *dritte Ziel* der Arbeit, aus Perspektive der Nonprofit-Organisation argumentierend zu untersuchen, inwiefern Peer-Spendende über die Peer Spende hinaus – und somit unabhängig des vermittelnden Peer-Fundraisenden – zu Organisationsspenden transformiert werden können und was die Voraussetzungen hierfür sind. In diesem Rahmen soll zudem

überprüft werden, ob Nonprofit-Organisationen maschinelles Lernen einen Mehrwert bietet bei der Identifikation von Transformationspotenzialen (Kapitel 4).

Perspektive des Kontextes

Eine weitere Forschungslücke bezieht sich auf die bislang unzureichende Betrachtung von Peer-to-Peer Fundraising Kampagnen in unterschiedlichen Kampagnenkontexten. Obwohl der Kontext nicht als Akteur verstanden wird, ist dieser dennoch wichtig zur Erklärung von Spendenverhalten (Wiepking et al., 2021). Die bisherigen Erkenntnisse zu Spendenmechanismen in diesem Forschungsfeld beruhen vorwiegend auf Studien, die sich auf Peer-to-Peer Kampagnenmodelle konzentrieren, in denen Nonprofit-Organisationen Peer-Fundraisende aus ihrem Spendenpool motivieren, Spenden innerhalb des eigenen sozialen Netzwerks zu sammeln (Smith et al., 2015). Daraus ergibt sich bezüglich der Netzwerkstruktur, dass sich Peer-Fundraisende und Peer-Spendende oft in einem Verwandtschaftsverhältnis befinden oder eine sehr enge Bindung aufweisen. Aus dem zuvor skizzierten Stand der Forschung geht eindeutig hervor, dass in diesen Kontexten Studien insbesondere die Entstehung der Spendenentscheidung auf die Beziehung mit dem Fundraisenden zurückzuführen ist (Scharf & Smith, 2016).

In der Praxis tritt jedoch vermehrt der Fall auf, dass For-Profit-Unternehmen und Nonprofit-Organisationen an Peer-to-Peer Spendeninitiativen (Hessekiel, 2022) zusammenarbeiten. In diesem Kontext fungieren Mitarbeitende des For-Profit Unternehmen als Peer-Fundraisende. Diese Art von Spendenkampagnen sind in der Regel in größere Peer-to-Peer-Netzwerke eingebettet, mit dynamischen Interaktionen zwischen allen beteiligten Akteuren und laufen meist über Social-Media-Plattformen oder eigene Websites. Dies erhöht gleichzeitig für die Nonprofit-Organisation die Komplexität der Implementierung und Steuerung.

Vor diesem Hintergrund ist das *vierte Ziel* der Dissertation, den Erkenntnisgewinn über den Kampagnenkontext zu erweitern. In zwei Studien dieser Dissertation (Kapitel 2 und Kapitel 3) handelt es sich um Untersuchungen im Kontext von Peer-to-Peer Nonprofit-Business-Kollaborationen.

Konzeptioneller Bezugsrahmen und Verortung der einzelnen Beiträge

Abbildung 1 veranschaulicht den konzeptionellen Bezugsrahmen des Dissertationsvorhabens, in dem die einzelnen Beiträge nach Kapitelnummern verortet sind. Die grundlegenden Annahmen des konzeptionellen Rahmens hinsichtlich des Zusammenspiels der einzelnen Akteure basiert auf Überlegungen der Social Network Theory (Burt, 1997; Coleman, 1988; Granovetter,

1973), während die Logik des Aufbaues theoretischen Ansätzen der Fundraisingliteratur (Helmig & Boenigk, 2019; Sargeant 2014) folgt. Inhaltlich bezieht sich der Rahmen mehrheitlich auf den aktuellen Stand der Literatur zu Peer-to-Peer Fundraising. Sofern zutreffend, sind die zugrundeliegenden Theorien den einzelnen Dissertationsbeiträgen zugeordnet.

Grundlegende Annahmen zu dem Zusammenspiel der Akteure im konzeptionellen Bezugsrahmen

In Übereinstimmung mit der vorherrschenden Perspektive im Forschungsstrang des Peer-to-Peer Fundraisings, liegen dem konzeptionellen Rahmen Annahmen der Social Network Theory zugrunde.

Die Kernaussage der Theorie ist, dass die Beziehungen innerhalb eines sozialen Netzwerkes und die Struktur des Netzwerkes wesentlichen Einfluss auf das Verhalten, die Einstellung und die Interaktionen der beteiligten Akteure haben. Dem Netzwerkgedanken der Theorie folgeleistend, umfasst der konzeptionelle Rahmen drei Akteure, die Nonprofit-Organisation, die Peer-Fundraisenden und die Peer-Spendenden, die das Verhalten und den Ressourcenaustausch zwischen diesen Akteuren potenziell beeinflussen (Burt, 1997) – in diesem Fall in Form einer Spende.

Gemäß der Theorie können diese Akteure durch unterschiedliche Formen von **Beziehungen** miteinander verbunden sein (Kilduff & Brass, 2010). (A) Die Beziehung zwischen *Nonprofit-Organisationen* und *Peer-Fundraisenden* kann im Kern als partnerschaftliche Beziehung betrachtet werden, da beide Akteure dasselbe Ziel verfolgen. (B) Die Verbindung zwischen *Peer-Fundraisenden* und *Peer-Spendenden* ist oft durch enge soziale Bindungen wie Freundschaften oder Verwandtschaft geprägt (Smith et al., 2015). Allerdings gehen die Studien in Kapitel 2 und 3 darauf ein, dass dies in der Praxis nicht immer der Fall sein muss und abhängig des Kontextes der Peer-to-Peer Kampagne auch andere Beziehungsverhältnisse auftreten. Die Studie in Kapitel 5 liefert basierend auf der *Social Discounting Theory* Erkenntnisse zur Bedeutung der Stärke dieser Beziehung für das Spendenverhalten. (C) Die Beziehung zwischen *Nonprofit-Organisationen* und *Peer-Spendenden* variiert je nachdem, ob die Peer-Spendenden zuvor schon zu den Unterstützer:innen der Organisation gezählt haben. Diese Beziehung ist jedoch im Kontext der Peer-to-Peer Kampagne generell eher schwacher Natur, da sie nicht zwingend in Kontakt stehen. Zudem gibt es weitere Beziehungen, z.B. in der Gruppe der Peer-Fundraisenden (Priante et al., 2019) oder Peer-Spendenden, die die Dynamik im sozialen Netzwerk erhöhen (Smith et al., 2015).

In Bezug auf die **Struktur** des sozialen Netzwerkes argumentiert die Social Network Theory, dass nicht alle Beziehungen (A, B, C) innerhalb des sozialen Netzwerks die gleiche Bedeutung haben (Brass, 2022; Kilduff & Brass, 2010). Bestimmte Akteure können zentrale Positionen einnehmen und als Verbindungen zwischen verschiedenen Mitgliedern des Netzwerks fungieren, während andere eher sekundäre Rollen einnehmen. Die zentrale Position im Rahmen der Peer-to-Peer Fundraising Kampagne nimmt der Peer-Fundraisende ein, weswegen diesem ein stärkerer Einfluss auf die Spendenentscheidung der Peer-Spendenden unterstellt wird. Über die Kampagne hinaus kann sich dies jedoch verschieben.

Aufbau und inhaltliche Überlegungen des konzeptionellen Bezugsrahmens

Der strukturelle **Aufbau** des Modells in Abbildung 1 folgt bestehenden Spendenmodelle in der Fundraisingliteratur (Sargeant, 2001; Helmig & Boenigk, 2019), während **inhaltliche Überlegungen** an dem Stand der Forschung zu Peer-to-Peer Fundraising ansetzen.

Insbesondere orientiert sich der Aufbau an der Logik des integrativen Modells zur Spendenerklärung, das von Helmig und Boenigk (2019) entwickelt wurde. Dieses Modell erklärt das Spendenverhalten auf individueller Ebene durch die Kombination verschiedener in der Literatur identifizierter Faktoren.

Der konzeptionelle Rahmen überträgt folgende Logiken aus dem Modell in den Peer-to-Peer Kontext:

(1) Als zu erklärende Komponente im Modell wird die individuelle Spendenentscheidung der Peer-Spendenden im Rahmen der Peer-to-Peer Kampagne konzeptualisiert. Die Entscheidung, die zu erklärende Variable auf der Mikroebene (Peer-Spendenden) anzusetzen, ergibt sich daraus, dass der Spendenerfolg eines Peer-Fundraisenden (Studie in Kapitel 2) und folglich der der Kampagne als Aggregation der einzelnen Spendenbeiträge gesehen werden kann.

(2) Das Modell integriert isolierte theoretische Ansätze aus der (Peer-) Fundraisingliteratur (Studie Kapitel 2 & Kapitel 4) und der Sozialpsychologie (Studie Kapitel 5) zur Erklärung des Spendenverhaltens im Rahmen der Peer-to-Peer Kampagne und kategorisiert diese nach den beteiligten Akteuren (Nonprofit-Organisation, Peer-Fundraisende, Peer Spendende), siehe aktueller Stand der Forschung.

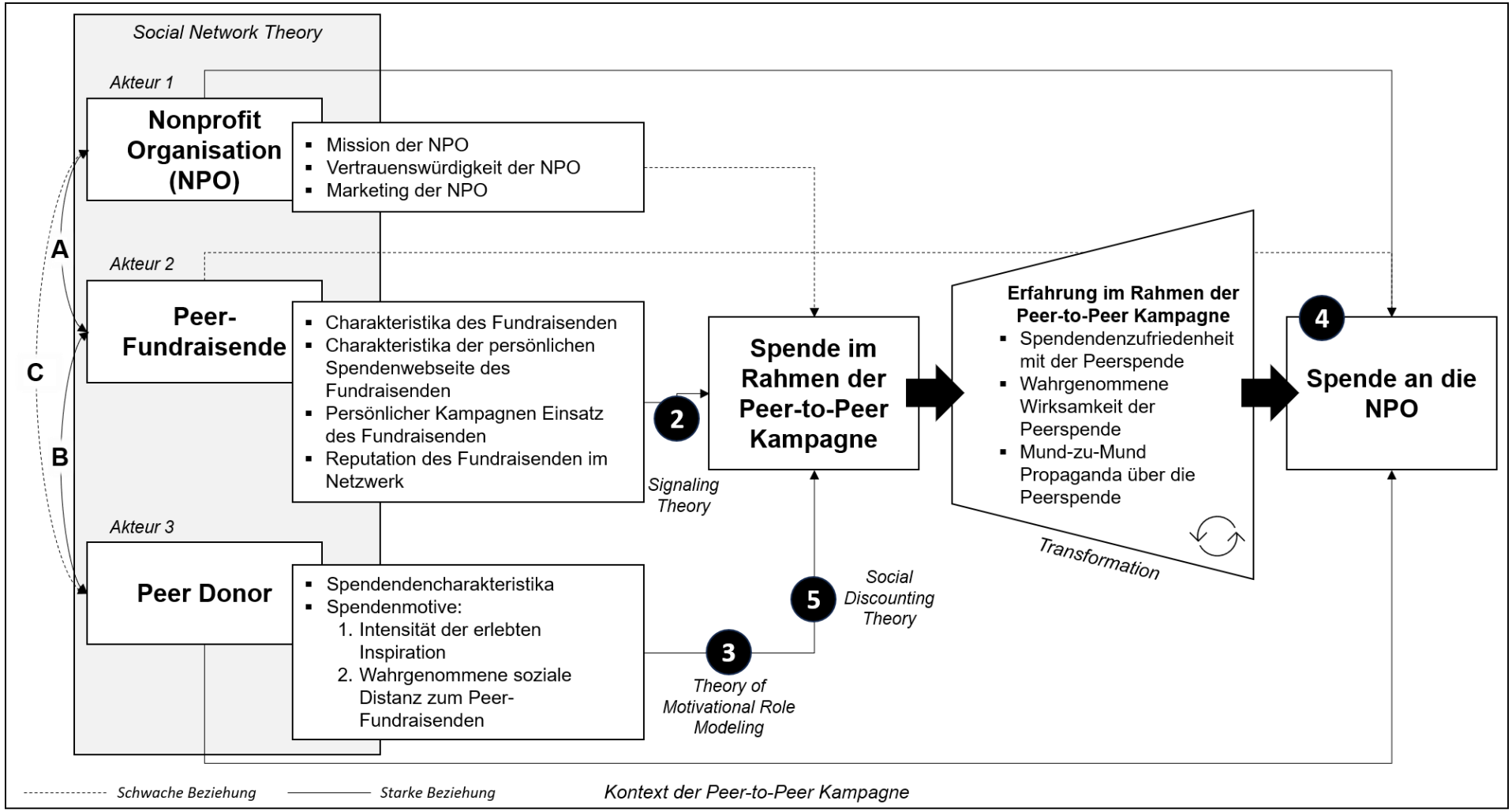
(3) Im Modell werden zwei Spendenentscheidungen differenziert: Zum einen die Spende des Peers im Rahmen der Peer-to-Peer Kampagne (entsprechend der Erstspende im Modell von Helmig und Boenigk (2019)) und zum anderen eine Spende an die Nonprofit-Organisation (entsprechend der Zweitspende im Modell von Helmig und Boenigk (2019)). Die Spende

in Rahmen der Peer-to-Peer Kampagne bildet somit den möglichen Auslöser für eine Spende an die Nonprofit-Organisation.

(4) Das Modell folgt der Aussage, dass Spendende spezifische Erfahrungen im Rahmen der Peer-to-Peer Kampagne sammeln (Boenigk & Helmig, 2013), die neben den Akteuren auch einen Einfluss auf die Spende an die Organisation haben. In diesem Zusammenhang greift das Modell auf die Literatur zu wiederholten Spenden zurück (Beldad et al., 2014). Dies wird dezidiert in der Studie in Kapitel 4 behandelt.

In der Gesamtschau umfasst das Modell drei Akteure, von denen angenommen wird, dass sie das Spendenverhalten in Peer-to-Peer-Kampagnen beeinflussen. Darüber hinaus wird die Spende im Rahmen der Peer-Kampagne als möglicher Auslöser für eine unabhängige Spende direkt an die Nonprofit-Organisation betrachtet. Die Einflussstärke der einzelnen Akteure variiert je nach Spendenentscheidung. Während Nonprofit-Organisationen in Peer-to-Peer Kampagnen ein schwacher Einfluss auf die Spendenentscheidung unterstellt wird (Chapman et al., 2019), ist davon auszugehen, dass sie bei der Transformation zu Organisationsspenden an Zentralität in der Netzwerkstruktur gewinnen.

Abbildung 1. Konzeptioneller Bezugsrahmen.



Kapitel 2: What makes peer fundraiser successful? Examining peer-to-peer fundraising success in the context of peer-to-peer nonprofit-business collaboration

Die erste Studie der Dissertation widmet sich der Untersuchung von Peer-to-Peer Fundraising aus Perspektive der Peer-Fundraisenden. Diese werden in bestehenden Forschungsarbeiten, wie der von Chapman und Kolleg:innen (2019), als maßgebliche Erfolgsdeterminante in Kampagnen identifiziert. Bezugnehmend auf drei identifizierte Forschungslücken zielt die Studie darauf ab, konzeptionelle Grundlagen für den Erfolg von Peer-Fundraising auf der Ebene der Fundraisenden zu entwickeln, differenzierende Erfolgsfaktoren zwischen erfolgreichen und erfolglosen Peer-Fundraisenden zu identifizieren und ein vertieftes Verständnis für die Besonderheiten des Peer-to-Peer-Fundraisings im Nonprofit-Business-Kontext zu schaffen.

Auf konzeptioneller Ebene positioniert sich die Studie innerhalb der Mid-Range Theory (Merton, 1968), die darauf abzielt, Verbindungen zwischen empirischen Beobachtungen und übergeordneten theoretischen Ansätzen herzustellen. Basierend auf dem Ansatz der *Social Network Theory* (Burt, 1992; Coleman, 1988) arbeitet die Studie die zentrale Rolle des Peer Fundraisers im Peer Netzwerk heraus. Unter dem Dach der *Signaling Theory* (Spence, 1973) kombiniert die Studie theoretische Erkenntnisse und beobachtbare Phänomene, um sechs Erfolgsfaktoren abzuleiten und deren Einfluss auf den Spendensammelerfolg des Fundraisenden zu postulieren.

Die empirische Untersuchung stützt sich auf beobachtbare Daten von N = 1,899 Peer-Fundraisenden, die im Rahmen der „Workout-for-Water Kampagne“ –Les Mills und UNICEF– darauf abzielen, Spenden in ihrem sozialen Netzwerk zu akquirieren. Die Datenerhebung erfolgt durch das Programmieren eines Web-Crawlers in Python, einer Technik, bei der Daten automatisiert von Webseiten extrahiert und aggregiert werden (Thomas & Mathur, 2019). Die Hauptanalyse umfasst die Analyse der Erfolgsfaktoren hinsichtlich 1) Erfolg versus Nichterfolg und 2) der Höhe des Erfolgs unter Verwendung eines TWO-Part Models.

Die Ergebnisse der Analyse zeigen, dass nur 44.8% der Fundraisenden erfolgreich (mindestens eine Spende) Spenden generiert haben. Die Studienergebnisse weisen darauf hin, dass die Personalisierung der eigenen Spendenwebseite insbesondere wichtig ist, um die Hürde der Nichtspende zu überwinden (Model Part 1). Nach dem Überwinden dieser Hürde (Modell Teil 2) stehen der professionelle Ruf der Peer-Fundraisenden innerhalb ihres Netzwerks und der persönliche Einsatz in der Kampagne in enger Beziehung zur Höhe des Erfolgs. Letztendlich hinterfragen die Ergebnisse der Studie die Eignung von Peer-to-Peer Kampagnen im Kollaborationskontext insofern, dass sowohl die Beteiligung der Peer-Fundraisenden als auch die durchschnittlich erzielte Spendensumme im Vergleich zu Studien im privaten Kontext moderat ist.

Kapitel 3: Donor inspiration in nonprofit management: Conceptualization and measurement in a peer-to-peer context

Die Studie in Kapitel 3 untersucht Peer-to-Peer Fundraising aus Perspektive der Peer-Spendenden. Aufbauend auf der Literatur zu Spendenmechanismen (Bekkers & Wiepking, 2011), ist das Ziel, das Konstrukt *Donor Inspiration* erstmals zu kontextualisieren und als weiteren Spendenmechanismus von Peer-Spendenden empirisch zu testen. In der Marketingforschung wurde Inspiration bereits als wichtiger Einflussfaktor in Bezug auf zu erklärende Variablen im Konsumentenverhalten bestätigt (Böttger et al., 2017). In der Nonprofitforschung haben sich bisher zwei qualitative Studien mit dem Konstrukt befasst (Liang et al., 2016; Nordstrom et al., 2022).

Theoretische Grundlage der Studie ist die *Theory of Motivational Role Modeling* (Morgenroth et al., 2015). Diese bietet eine Erklärungsgrundlage, wie Personen innerhalb von Beziehungsgeflechten, die als Vorbilder wahrgenommen werden, andere zu Verhalten inspirieren können. Darauf aufbauend und basierend auf der Inspirationsliteratur aus der Sozialpsychologie (Thrash & Elliot, 2004) konzipiert die vorliegende Studie ein Rahmenwerk für „Donor Inspiration", das sich aus einer Zwei-Phasen-Logik zusammensetzt. Die erste Phase wird als initiierende „*inspiriert-von*" Phase definiert, in der ein intrinsisch motivierter Zustand durch eine externe Inspirationsquelle ausgelöst wird – in diesem Fall, dem Peer-Fundraisenden, dem Spendenzweck oder Beiden. Darauf folgt die *"inspiriert-zu"* Phase, in der die Motivation entsteht, die inspirierte Idee – hier eine Spende – umzusetzen. Diese tritt in unterschiedlichen Intensitäten auf.

Wie in Studie 1 baut diese Studie auf beobachtbaren Daten der Workout-for-Water Kampagne auf. Abweichend zu Studie 1 werden Daten von N = 8,697 Einzelspendenden analysiert. Insbesondere, werden N = 3,494 schriftliche Kommentare der Spendenden auf der Spendenseite hinsichtlich ihrer Inspirationsquelle und Inspirationsintensität ausgewertet. Zur Überprüfung der Hypothesen werden ANOVAs, Regressions- und Mediationsanalysen durchgeführt. Die Ergebnisse der Studie zeigen, dass die Peer-Fundraisenden, der Spendenzweck oder eine Kombination aus beidem als Inspirationsquelle für Spenden dienen können. In 80% der Fälle sind Peer-Fundraisende die Inspirationsquelle und somit der Auslöser für Spenden. Gleichzeitig weisen die Ergebnisse darauf hin, dass Spendende die Inspiration durch den Peer-Fundraisenden und den Spendenzweck erfahren, den höchsten Durchschnittsbetrag spenden (M = USD 53.67). Des Weiteren wird deutlich, dass die Intensität der erlebten Inspiration einen Effekt auf die Höhe der Spende hat, wenngleich dieser nur einen geringen Erklärungsbeitrag liefert. Während dies erste Anhaltspunkte bietet, dass Inspiration als ein Spendenmechanismus im Peer-to-Peer Fundraising angesehen werden kann, ruft die Studie zur weiteren Forschung auf.

Kapitel 4: Transforming peer donors into organizational donors: Understanding and managing peer donor transformation

Die in Kapitel 4 vorgestellte Studie untersucht Peer-to-Peer Fundraising aus einer organisationalen Perspektive. Ausgehend von der Erkenntnis der vorangegangen beiden Studien sowie der aktuellen Literaturlage (Scharf und Smith, 2016), dass Nonprofit-Organisation sowie der Spendenzweck eine untergeordnete Rolle in der Spendenentscheidung von Peers spielen (Chapman et al., 2019; Hesse & Boenigk, 2023), stellt die Studie die Frage, ob und abhängig welcher Faktoren Peer Spendende nach ihrer Spende im Rahmen einer Peer-to-Peer Kampagne zu Organisationsspenden transformieren. Somit betrachtet sie Peer-to-Peer Fundraising nicht nur als transaktionsorientiertes Fundraisinginstrument sondern auch als potenzielles Instrument zur Neugewinnung und Bindung von Peer-Spendenden für Nonprofit-Organisationen. Zudem zielt die Studie darauf ab, Erkenntnisse hinsichtlich des organisationalen Nutzens von Machine-Learning Ansätzen für das Fundraising-Management in Hinblick auf die Vorhersagekraft von Transformationsverhalten zu erlangen. Die Studie stützt sich auf die Literatur im Bereich des beziehungsorientierten Fundraisings (Beldad et al., 2014; Khodakarami et al., 2015) mit besonderem Fokus auf Erkenntnis über die Absicht von Organisationsspendenden hinsichtlich der wiederkehrenden Spende. Dies wird durch Erkenntnisse im Peer-to-Peer Fundraising komplementiert.

Die empirische Untersuchung basiert auf einer Online-Umfrage mit N = 706 Peer-Spendenden aus den USA, die durch den Panelprovider Prolific rekrutiert wurden. Die Hauptanalyse umfasst die 1) Analyse der Transformationswahrscheinlicht und Faktoren, die mit der Transformation zusammenhängen mittels logistischer Regression, und 2) die Identifikation von Transformationswahrscheinlichkeiten auf individuellem Level mittels random forest classifier.

Die Ergebnisse der Studie deuten darauf hin, dass Peer-to-Peer Fundraising das Potenzial zur Neugewinnung von Organisationsspenden hat, da etwa Siebtel der Peer-Spendenden, die zuvor keine Verbindung zur Nonprofit-Organisation hatten, transformieren. Insbesondere haben die Ergebnisse einen Zusammenhang zwischen der Marketing-Ansprache des Peer-Spendenden durch die Nonprofit-Organisation und der Transformation zum Organisationsspendenden aufgezeigt. Letztendlich bestätigen die Ergebnisse den Mehrwert von Machine-Learning, insbesondere dem random forest classier Algortihmus, zur Identifikation von Spendenden mit der höchsten Transformationswahrscheinlichkeit (Genauigkeit 77%). Die Relevanz der Studie setzt sich sowohl aus einem Beitrag für die Forschung als auch einem Beitrag für die Praxis zusammen und unterstreicht hybride Forschungsansätze.

Kapitel 5: Explaining peer-to-peer giving through social discounting

Die vierte Studie in Kapitel 5 beleuchtet Peer-to-Peer Fundraising erneut aus Perspektive der Peer-Spendenden. Aufbauend auf den zentralen Ergebnissen der vorangegangenen Studien und der bisher bestehenden Forschung (Scharf & Smith, 2016), ist das zentrale Element der Studie die Beziehung zwischen Peer-Fundraisenden und Peer-Spendenden. Während Studien zu diesem Thema die Wichtigkeit der Beziehung thematisieren, besteht eine Forschungslücke in der näheren Charakterisierung der Stärke dieser Beziehung. Diese Lücke umfasst eine mangelnde theoretische Fundierung und fehlende empirische Beweise. Vor diesem Hintergrund führt die Studie die verhaltensökonomische Theorie der sozialen Diskontierung (*Social Discounting Theory*, Jones und Rachlin, 2006) in die Peer-to-Peer Fundraising Forschung ein. Dabei hat sie zum Ziel zu untersuchen, inwiefern die wahrgenommene Distanz in einer Beziehung, einen Einfluss auf die Höhe der Peer Spende hat. Darüber hinaus erfolgt eine explorative Untersuchung des Konzeptes „Peer" in der Stichprobe.

Die empirische Untersuchung wurde gemäß ihrer Pre-Registrierung durchgeführt und umfasst ein Online-Experiment mit einem within-subject design, an dem N = 301 Proband:innen aus den Vereinigten Königsreich teilnahmen. Jedem Teilnehmenden wurden sechs Spendenszenarien präsentiert, in denen verschiedene Gruppen von Peers (Familie, Freunde, Freunde von Freunden, Arbeitskollegen, Prominente, Fremde) sie zur Spende für denselben Zweck aufforderten. Für jede Peer-Gruppe mussten die Teilnehmenden eine echte Person aus ihrem privaten Umfeld benennen. Den Teilnehmenden wurde mitgeteilt, dass sie 10 Pfund gewinnen können abhängig ihrer Spendenentscheidung. Anschließend wurden sie gebeten, für jedes Szenario separat zu entscheiden, wie viel sie von den 10 Pfund für sich behalten und wie viel sie spenden möchten. Danach mussten sie die wahrgenommene soziale Distanz zu den Peers angeben.

Die Ergebnisse zeigen, einerseits dass Peer-Spendende tendenziell mehr spenden, wenn sie sich den Peer-Fundraisenden näher fühlen. Andererseits zeigen sie, dass dieser Effekt mit steigender Distanz abschwächt. Konkret bieten die Ergebnisse einen Anhaltspunkt, dass insbesondere Familienmitglieder und enge Freunde sich als Peer-Fundraisende eignen, während die Wirksamkeit von Prominenten als Peer-Fundraisende in Frage gestellt wird. Darüber hinaus betont die durch Crowdsourcing erstellte, datengetriebene Untersuchung des „Peer"-Konzepts, dass auf einem Peer Kontinuum Familienmitglieder und enge Freunde als mehr als „nur" Peers wahrgenommen werden, während Prominente als weniger als Peers betrachtet werden. Mittig befinden sich Arbeitskolleg:innen und Klassenkameraden. Dies spiegelt sich auch in den offenen Antworten wieder, die zeigen, dass Peers hauptsächlich im Arbeitskontext getroffen wurden.

Kapitel 6: The contribution of crowdfunding for philanthropy: A systematic review and framework of donation and reward crowdfunding

Kapitel 6 stellt die fünfte Studie der vorliegenden Dissertation dar. Diese ist im Forschungsfeld des philanthropischen Crowdfundings anzusiedeln und nimmt somit eine Sonderstellung ein, und ist als Zusatzstudie zu verstehen. Der Hintergrund dieser Studie liegt in der Diskrepanz zwischen der wachsenden Beliebtheit von Crowdfunding als Online-Fundraising-Ansatz (Alegre & Moleski, 2021; Behl & Dutta, 2020) und der Beobachtung in der Praxis, dass viele Crowdfunding Projekte ihre finanziellen Ziele nicht erreichen. Trotz vermehrter Forschung zu Motiven hinter der Spende in philanthropischen Crowdfunding Projekten und erster systematischen Literaturreview (Alegre & Moleski, 2021) bleibt das Forschungsfeld einer Reihe von empirischen Berichten ohne klaren theoretischen Hintergrund zurück.

Vor diesem Hintergrund verfolgt die Studie das Ziel, durch eine systematische Überprüfung der Literatur und die Entwicklung eines theoretischen Rahmens diese Lücke zu schließen und ein tieferes Verständnis für die Faktoren zu schaffen, die den Erfolg von Crowdfunding-Projekten im Spendenbereich beeinflussen. Im Spezifischen stellt sie die Frage: Welche Merkmale von Crowdfunding-Projekten vermitteln und beeinflussen Online-Spenden?

Anhand eines zweistufigen Prozesses, ähnlich dem von van Teunenbroek und Kolleg:innen. (2020), wird zunächst eine systematische Literaturrecherche und -analyse über die Datenbanken Google Scholar und ResearchGate durchgeführt. Als Kriterium für den Einschluss in die Stichprobe werden Artikel berücksichtigt, die sich im Bereich des philanthropischen Crowdfundings befinden und sich darauf konzentrieren, das Spendenverhalten bzw. die Spendenbereitschaft zu erklären. Die Studien werden dann nach der Art des Crowdfunding, dem Forschungskontext und dem Land kodiert. Basierend auf N = 198 Studien wird im zweiten Schritt durch Synthese der Ergebnisse der einbezogenen Studien ein theoretischer Rahmen entwickelt.

Dieser umfasst vier Hauptmerkmale von Crowdfunding, die sich auf Online-Spenden auswirken: der Projektinitiator, die sozialen Informationen, potenzielle Prämien und die Projektbeschreibung. Diese Merkmale beeinflussen das Spenderverhalten durch Mechanismen, die aus den Bereichen der Wirtschaftswissenschaften, Sozialwissenschaften und der Sozialpsychologie erklärt werden, wie zum Beispiel die Glaubwürdigkeit des Projektinitiators, die soziale Bestätigung durch andere Spendende oder die Transparenz.

Die Studie trägt zum Verständnis des Spendenverhaltens im Internet bei und bietet praktische Einblicke zur Steigerung des Erfolgs von Crowdfunding-Projekten für Praktiker:innen und Forschende.

Forschende	Titel und Status des Projekts	Forschungsziele	Forschungsdesign und Daten	Analyse	Zentrale Ergebnisse
Kapitel 2: What makes peer fundraiser successful? Examining peer-to-peer fundraising success in the context of peer-to-peer nonprofit-business collaboration					
Hesse & Boenigk	**What makes peer fundraiser successful? Examining peer-to-peer fundraising success in the context of peer-to-peer nonprofit-business collaboration** *Nonprofit Management and Leadership.* ▪ **Status: Akzeptiert** ▪ VHB-JOURQUAL 4: B ▪ IMPACT FACTOR: 2,80	(1) Theoretische Entwicklung und Konzeptualisierung wichtiger Erfolgsfaktoren auf der Ebene der Peer-Fundraisenden. (2) Identifizierung differenzierender Erfolgsfaktoren zwischen erfolgreichen und erfolglosen Peer-Fundraisenden. (3) Vertiefung des Verständnisses für Peer-to-Peer-Fundraising in kollaborativen Nonprofit-Business-Kontexten.	▪ Beobachtbare Kampagnendaten (Webcrawling) der Online Peer-to-Peer Kampagne „Workout for Water“ von Unicef und LesMills ▪ N = 1.899 individuelle Peer-Fundraisende	▪ Deskriptiv-statistische Auswertungen ▪ Two-Part Model *(STATA)*	▪ Eine kleine Anzahl an Peer-Fundraisenden ist verantwortlich für einen Großteil des Kampagnenerfolgs. ▪ Im Nonprofit-Business Kontext erzielt eine deutliche Anzahl an Fundraisenden keine Spende. ▪ Die Personalisierung der eigenen Spendenplattform ist wichtig, um die Hürde der Nichtspende zu überwinden. ▪ Die Höhe des Spendenerfolges hängt eng mit dem professionellen Ruf der Peer-Fundraisenden im Netzwerk und dem persönlichen Einsatz in der Kampagne zusammen.
Kapitel 3: Donor inspiration in nonprofit management: Conceptualization and measurement in a peer-to-peer context					
Hesse & Boenigk	**Donor inspiration in nonprofit management: Conceptualization and measurement in a peer-to-peer context** *Nonprofit Management and Leadership 34(2), 241-265.* ▪ **Status: Veröffentlicht** ▪ VHB-JOURQUAL 4: B ▪ IMPACT FACTOR: 2,80	(1) Konzeptualisierung des Konstruktes Spenderinspiration und dessen Bedeutung in der Nonprofit-Managementforschung basierend auf Ansätzen der (Sozial-)Psychologie (2) Bereitstellung empirischer Belege für den Zusammenhang zwischen Spenderinspiration und Spendenverhalten	▪ Beobachtbare Kampagnendaten (Webcrawling) der Online Peer-to-Peer Kampagne „Workout for Water“ von Unicef und LesMills ▪ N = 8.697 Peer Spendende (davon N = 3,494 Spenden mit schriftlichem Kommentar auf der Spendenplattform)	▪ Chi-Quadrat-Tests ▪ Kruskal-Wallis-Tests ▪ OLS Regression ▪ Mediation (*STATA/SPSS*)	▪ Als Inspirationsquellen dienen der Peer-Fundraisende, der Spendenzweck und eine Kombination aus beidem. ▪ Peer-Fundraisende sind in 80% der Fälle alleinige Inspirationsquelle. ▪ Spendende, die durch Kombination inspiriert sind, spenden den höchsten Durchschnittsbetrag. ▪ Intensität der Inspiration hängt mit der Höhe der Spendensumme zusammen.
Kapitel 4: Transforming peer donors into organizational donors: Understanding and managing peer donor transformation					
Hesse	**Transforming peer donors into organizational donors: Understanding and managing peer donor transformation** *Nonprofit Management and Leadership.* ▪ **Status: Akzeptiert** ▪ VHB-JOURQUAL 4: B ▪ IMPACT FACTOR: 2,80	(1) Untersuchung der Transformationswahrscheinlichkeit und ihrer bestimmenden Faktoren (2) Überprüfung der Eignung maschinellen Lernens bei der Vorhersage der Transformationswahrscheinlichkeit von Spendenden	▪ Online-Umfrage mit Peer Spendenden ▪ Stichprobe rekrutiert via Prolific (USA) ▪ N = 706 (Peer Spendende aus den USA)	▪ Logistische-Regression ▪ Random Forest Analysis *(Python)*	▪ Unter Erstspendenden, die keine vorherige Verbindung zur Nonprofit-Organisation haben, liegt die Transformationswahrscheinlichkeit bei 14,1 %. ▪ Eine Ansprache der Spendenden durch die Organisation hängt mit einer erhöhten Transformationswahrscheinlichkeit zusammen, während kein Zusammenhang zwischen dem etablierten Treiber Vertrauen in die Organisation nachgewiesen werden kann. ▪ Der Einsatz von maschinellem Lernen ermöglicht eine zufriedenstellende Vorhersage von Transformationsverhalten auf individueller Spendendenebene mit einer reduzierten Anzahl von Faktoren.

Forschende	Titel und Status des Projekts	Forschungsziele	Forschungsdesign und Daten	Analyse	Zentrale Ergebnisse
Kapitel 5: Explaining peer-to-peer fundraising through social discounting					
Hesse, Bernardic, & Ugazio	**Explaining peer-to-peer fundraising through social discounting** *Journal of Consumer Psychology* ▪ **Status: Eingereicht** ▪ VHB-JOURQUAL 3: A ▪ IMPACT FACTOR: 4.8	(1) Untersuchung des Peer Spendenverhaltens im Rahmen des theoretischen Ansatzes der sozialen Diskontierung (2) Etablieren eines daten-getriebenen Verständnisses zu dem Konzept Peer.	▪ Online-Experiment; within-subjects- Design ▪ Repräsentative Stichprobe rekrutiert via Prolific (UK) ▪ N = 301 (allgemeine Bevölkerung UK)	▪ ANOVA ▪ lineare Mixed-Effekt Regressionsmodelle (*R)* ▪ Coden von offenen Textfeldern via Python	▪ Eine höhere wahrgenommene soziale Distanz zum Peer-Fundraisenden beeinflusst das Spendenverhalten der Peer-Spendenden negativ. ▪ Die Beziehung folgt einem nicht-linearen Modell. Ab einem gewissen Punkt führt eine geringere Distanz nicht mehr zu einem erhöhten Spendenverhalten.
▪ **Kapitel 6: The contribution of crowdfunding for philanthropy: A systematic review and framework of donation and reward crowdfunding**					
Van Teunenbroek, Della Chiesa, & Hesse	**The contribution of crowdfunding for philanthropy: A systematic review and framework of donation and reward crowdfunding** *Journal of Philanthropy and Marketing* ▪ **Status: Veröffentlicht** ▪ VHB-JOURQUAL 4: C ▪ IMPACT FACTOR: 1,15	(3) Entwicklung eines theoretischen Rahmens, der die Merkmale von Crowdfunding -Projekten identifiziert und erklärt (4) Welche Merkmale von Crowdfunding-Projekten vermitteln und beeinflussen Online-Spenden?	▪ Systematische Literaturübersicht ▪ N = 198 Studien zu philanthropischem Crowdfunding ▪ Literaturstränge: Nonprofit Management, Verhaltensökonomie, Konsumentenverhalten und Sozialpsychologie	▪ Systematische Literaturanalyse ▪ Entwicklung eines theoretischen Rahmens	▪ Im spendenbezogenen Crowdfunding beeinflussen die Spendenentscheidung (1) der Projektinitiator, (2) soziale Informationen, (3) Belohnungen und (4) die Projektbeschreibung. ▪ Diese Faktoren wirken sich über Glaubwürdigkeits- und Qualitätsaspekte, soziale Aspekte sowie die Aussicht auf Belohnung aus.

Table 2. Übersicht zu den einzelnen Dissertationsprojekten.

Beiträge der Dissertation zur Forschung und Ausblick auf künftige Forschung

Insgesamt leistet das vorliegende Dissertationsvorhaben einen wissenschaftlichen Beitrag zur Weiterentwicklung der Peer-to-Peer-Fundraising-Forschung, indem es eine Synthese einzelner theoretischer und empirischer Erkenntnisse zu einem integrierten Bezugsrahmen ermöglicht. Gleichzeitig bietet es eine Grundlage für zukünftige Forschung, indem es weitere Forschungspotenziale aufzeigt.

Im Rahmen der theoretisch-konzeptionellen Weiterentwicklung des Forschungsfeldes trägt die vorliegende Dissertation in erster Linie durch die Integration und Anwendung verschiedener theoretischer Perspektiven dazu bei, ein umfassenderes Verständnis der Mechanismen, Motivationen und Einflussfaktoren des Spendenverhaltens im Peer-to-Peer Kontext zu erlangen. Ein zentraler Beitrag liegt in der Anwendung der *Social Network Theory* (Burt, 1997; Coleman, 1988; Granovetter, 1973) zur Erklärung der Gesamtstruktur von Netzwerken in Peer-to-Peer-Fundraising-Kampagnen. Insbesondere wird in Kapitel 2 darauf aufbauend die Rolle und Bedeutung der Zentralität von Peer-Fundraisenden im Netzwerk erläutert. Darüber hinaus werden interdisziplinäre Theorien einbezogen, die einzelne Aspekte des Spendenverhaltens beleuchten. So wird beispielsweise in Kapitel 2 die *Signaling Theory* (Spence, 1973, 2002) aus der Wirtschaftswissenschaft herangezogen, um zu erklären, wie Peer-Fundraisende durch ihre Eigenschaften und Handlungen Signale an andere Netzwerkakteure senden und welchen Einfluss diese auf das Spendenverhalten haben. In Kapitel 3 wird die *Theory of Role Modeling* (Morgenroth et al., 2015) aus der Psychologie angewendet, um zu erläutern, wie Personen, die innerhalb einer Beziehung oder eines Netzwerks als Vorbilder wahrgenommen werden, andere beeinflussen und motivieren können. Ein Beitrag in diesem Rahmen ist die Einführung des zentralen Konzepts der inspirierenden Wirkung, die von solchen Vorbildern ausgeht, in das Nonprofit-Management. Des weiteren wird in Kapitel 5 die *Social Discounting Theory* (Jones & Rachlin, 2006) aus der Sozialpsychologie berücksichtigt, um das Spendenverhalten auf der Grundlage der wahrgenommenen sozialen Distanz zu erklären. Dies trägt dazu bei, das Forschungsfeld in dem Sinne zu erweitern, dass es die Bedeutung der Beziehung, die von vielen Forschenden (Chapman et a., 2019; Meer, 2011; Scharf & Smith, 2016) hervorgehoben wird, präzisiert. Zusammengefasst trägt die vorliegende Dissertation somit zur Erweiterung des theoretischen Verständnisses auf Ebene der Peer-Fundraisenden und Peer-Spendenden bei.

Somit bedarf es weiterer theoretischer Forschung zur Erklärung von Peer-to-Peer Fundraising im Gesamtkontext der Organisation. Ein möglicher theoretischer Ansatz zur Betrachtung von

Peer-to-Peer Fundraising im organisatorischen Kontext ist die *Theorie der Ressourcenabhängigkeit* von Pfeffer und Salancik (1978). Dabei könnte Peer-to-Peer Fundraising als strategischer Ansatz des Managements untersucht werden, um auf sich verändernde Umwelteinflüsse zu reagieren und Einnahmequellen zu diversifizieren (Hung & Hager, 2019; Sacristán López de los Mozos et al., 2016). Vor dem Hintergrund dieser Theorie könnten die Peer-Fundraisenden als eine Ressource betrachtet werden, die die Fähigkeit besitzen, Spenden von potenziellen Spendenden zu akquirieren, zu denen die Nonprofit-Organisation keinen direkten Zugang hat. Die Spendenden würden wiederum die Ressource in Form von finanziellen Mitteln darstellen, die die Organisation benötigt, um ihre Mission zu erfüllen. In Anlehnung an die Theorie kann dies zu einer Art doppelter Abhängigkeit führen, bei der die Organisation sowohl von den Fundraisenden als auch von den Spendenden abhängig ist. Somit wäre eine interessante Fragestellung, ob Peer-to-Peer Fundraising eine geeignete Einnahmequelle für jegliche Art von Nonprofit-Organisation ist und wie die Organisation ein Gleichgewicht zwischen Ressourcenbindung und -abhängigkeit sowie Aufrechterhaltung von Kontrollmaßnahmen finden kann.

Auf konzeptioneller Ebene leistet die Dissertation weiterhin einen Beitrag, indem sie Peer-to-Peer Fundraising nicht nur als transaktionsorientiertes Fundraisinginstrument, sondern auch als Neugewinnungs- und Bindungsinstrument von Spendenden betrachtet. Dabei stützt sie sich auf Annahmen von Forschenden wie Sargeant (2014) und Beldad und Kolleg:innen (2014), die Peer-to-Peer Fundraising als einen Ausgangspunkt für Spendererfahrungen betrachten, die zukünftige Spendenentscheidungen beeinflussen können. Dieser Blickwinkel sollte in zukünftigen Forschungsarbeiten stärker berücksichtigt werden.

Mit Blick auf den empirischen Erkenntnisgewinn trägt die Dissertation zum Forschungsgebiet bei, indem sie bestehende Befunde in der Literatur validiert und gleichzeitig bisher nicht berücksichtigte Faktoren auf Ebene der verschiedenen Akteure ergänzt. (Chapman et al., 2019; Priante et al., 2021). Die empirischen Ergebnisse bieten neue Ansatzpunkte und weisen auf Potenziale für weitere Forschung hin, die in den einzelnen Forschungsbeiträgen genauer betrachtet werden können. Ein möglicher Ansatz für weitere Forschung ist die Theoriefalsifikation (Popper, 1972). Dieser hinterfragt durch empirische Tests und das Falsifizierbarkeitskriterium aktuelle Konzeptualisierungen. Gerade in den Anfängen einer neuen Forschungsrichtung ist die Frage nach der Validierung der Ergebnisse hoch. Dies könnte zum Beispiel zu Betrachtungen von Kontexten führen, die Peer-Spendende in ein moralisches Dilemma bringen, sei es nach einem Skandal oder wenn die Peer-Kampagnen Zwecke unterstützen, die Spendende selbst als wenig unterstützenswert empfinden.

Zudem trägt die Dissertation auf methodischer Ebene zum Feld bei, indem sie innovative Forschungsmethoden und Analysen einsetzt. Insbesondere ergänzen die Untersuchungen in Kapitel 2 und 3 bisherige Studien im Bereich Peer-to-Peer Fundraising durch den Einsatz von künstlicher Intelligenz, wie maschinelles Lernen (Kapitel 4) und Natural Language Processing (Kapitel 3 und Kapitel 5) zur Datenauswertung. Dies ermöglicht die Messung des konkreten Spendenverhaltens im Vergleich zur Spendenintention und das Lernen aus vorhandenen, häufig unstrukturierten Datenbeständen. Gleichzeitig besteht in diesem Zusammenhang weiterer Forschungsbedarf hinsichtlich der Integration von diesen praxisnahen Forschungsmethoden und theoriegenerierender Forschung (Merton, 1968).

Neben den bereits skizzierten Forschungspotenzialen leitet sich aus dem konzeptionellen Rahmenwerk weiterer Forschungsleerstand ab.

Dieser zeigt sich insbesondere in Bezug auf die Anzahl an Akteuren im Rahmen einer Peer-to-Peer Fundraising Kampagne. Neben den Hauptakteuren der (1) Nonprofit-Organisation, (2) der Peer-Fundraisenden und (3) Peer-Spendenden sollte künftige Forschung weitere Akteure in Betracht ziehen. Beispielsweise geht aus dem Dienstleistungsmanagement hervor, dass die Online (Spenden)-Plattform als weiterer Akteur in Peer-to-Peer-Netzwerken betrachtet werden kann (Lin et al., 2019). In diesem Sinne wären Forschungsarbeiten wünschenswert, die sich mit der Plattformökonomie befassen und mögliche Einflussfaktoren hinsichtlich des Designs und der Funktionen auf das Spendenverhalten untersuchen (Blasco-Arcas et al., 2020). Im Zuge der Diskussion um (generative) künstliche Intelligenz könnte auch diese selbst als möglicher Akteur im Netzwerk erforscht werden (Le et al., 2024).

Abschließend möchte die vorliegende Dissertation den Forschungsbedarf verdeutlichen, der hinsichtlich der Dynamik im Peer-to-Peer Fundraising besteht. Während die Betrachtung der Perspektiven der einzelnen Akteure in den verschiedenen Beiträgen dieser Arbeit eine notwendige Grundlagenarbeit zur Weiterentwicklung des Feldes geleistet und diese Perspektiven in einem integrativen Rahmen zusammengeführt hat, lässt sich dennoch argumentieren, dass dies noch nicht ausreichend die Dynamiken innerhalb eines Peer-to-Peer Netzwerks abbildet (Chapman et al., 2022). Nach Durchführung dieser wichtigen Grundlagenarbeit entwickelt sich das Forschungsfeld nun zu einem Punkt, an dem die tatsächlichen Dynamiken und Wechselwirkungen weiter untersucht werden sollten.

Implikation für die Praxis

Die vorliegende Dissertation liefert auch umfangreiche praktische Implikationen für das Nonprofit-Management. Während die einzelnen Beiträge der Dissertation konkrete Implikationen in Bezug auf einzelne empirische Befunde liefern, werden die Implikationen an dieser Stelle abstrahiert.

Angesichts der Tatsache, dass in Kapitel 4 aufgezeigt wurde, dass Peer-to-Peer Fundraising auch das Potenzial zur Bindung von Peer-Spendenden bietet, ergibt sich eine erste klare Implikation: Fundraising Manager:innen sollten, insbesondere vor dem Hintergrund des Wettbewerbsdrucks (Schubert et al., 2023), Peer-to-Peer Fundraising nicht nur als Transaktions-, sondern auch als Beziehungsansatz betrachten. Da die Ergebnisse indizieren, dass einige Voraussetzungen zur Bindung bereits auf Ebene der Kampagnenplanung berücksichtigt werden müssen, ist es entscheidend, dieses Bewusstsein von Anfang an in die strategischen Entscheidungsprozesse zur Gestaltung von Peer-to-Peer Kampagnen zu integrieren.

Basierend auf dem Zusammenspiel der einzelnen Studien lautet eine zweite Empfehlung, dass Nonprofit-Organisationen genügend Ressourcen in die Schaffung geeigneter technologischer Infrastrukturen der Online-Spendenplattform investieren sollten. Vom Standpunkt des Peer-Fundraisenden gesehen, sollte die Plattform die Personalisierung der Inhalte und eine vorteilhafte Selbstdarstellung ermöglichen. Laut Ergebnissen aus Studie 2 hat dies einen Einfluss auf einen erhöhten Fundraisingerfolg. Die hohe Bereitschaft der Spendenden, über die Kommentarfunktion der Plattform mit den Fundraisenden in Kontakt zu treten (Studie Kapitel 3), unterstreicht die Bedeutung dieser für die Spendenden, um eine Verbindung zu den Fundraisende herstellen zu können. Aus Sicht der Nonprofit-Organisationen ermöglichen gut konzipierte Online-Plattformen einerseits eine gewisse Kontrolle über den Fundraising-Prozess und geben den Peer-Fundraisenden einen Handlungsrahmen vor. Andererseits ermöglichen sie es der Organisation, zumindest indirekt mit den Peer-Spendenden in Kontakt zu treten, sich zu positionieren, und Daten zu erfassen.

Angelehnt an den letzten Punkt ist es eine klare Empfehlung, Daten systematisch zu erfassen und diese gezielt für die strategische Entscheidungsfindung zu nutzen. Die Tatsache, dass zwei der Studien ihren Erkenntnisgewinn ausschließlich aus beobachtbaren, realen Kampagnendaten erlangt haben, unterstreicht die Bedeutung und Menge an Informationen, die Nonprofit-Organisationen auf ihren eigenen Plattformen gewinnen können. Damit einhergehend empfiehlt es sich, im Vorfeld über die gewünschte Datenstruktur nachzudenken. Der gezielte Einsatz von

Machine-Learning in Kapitel 4 zur Vorhersage von Transformationsverhalten hat zudem verdeutlicht, dass es nicht nur wichtig ist, Daten zu erfassen, sondern auch kontinuierlich aus ihnen zu lernen und sie zur Vorhersage von Verhalten zu nutzen, um Spendende effizienter anzusprechen.

Neben den bisherigen Empfehlungen für das Fundraising-Management bieten die Studien in Kapitel 2 und Kapitel 5 weitere Empfehlungen für das *Personalmanagement*, insbesondere in Bezug auf die Auswahl geeigneter Peer-Fundraisenden und deren Schulung. Studie 4 bietet Implikationen für die Marketingabteilung hinsichtlich der Ansprache von Peer-Fundraisenden sowie die Empfehlung des Aufbaus einer CRM-Datenbank. Letztendlich werden in Kapitel 2 und 3 Empfehlungen zum Umgang mit Kampagnen in einem kollaborativen Kontext zwischen Nonprofit-Organisationen und For-Profit-Organisationen geliefert. Zusätzlich zu den Erkenntnissen über Peer-to-Peer Fundraising bietet die Studie in Kapitel 6 auch Hinweise zur Nutzung von Crowdfunding.

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Kapitel 2: What makes peer fundraiser successful? Examining peer-to-peer fundraising success in the context of peer-to-peer nonprofit-business collaboration

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What makes peer fundraisers successful? Examining peer-to-peer fundraising success in the context of peer-to-peer nonprofit-business collaboration

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Abstract

To advance the conceptual understanding of what drives peer-to-peer fundraising success, this study takes a first step toward conceptualizing antecedents of peer fundraiser success based on a real-world nonprofit-business collaboration. Drawing on social network and signaling theories, combined with knowledge from peer-to-peer fundraising literature, the authors developed and tested a mid-range theory driven framework of peer fundraising success. The study collected observable data from a peer-to-peer collaboration between UNICEF and Les Mills, labeled "Workout for Water" campaign, and analyzed a unique dataset of 1,899 fitness instructors who were engaged in the campaign as peer fundraisers. By contrasting characteristics and actions of successful and unsuccessful peer fundraisers, the empirical evidence from the two-part model affirms several antecedents distinguishing between those peer fundraisers who achieve fundraising success and those who do not. The personal efforts to initiate additional actions and peer fundraiser's professional reputation within the peer community are particularly important. Furthermore, personalizing the individual's online fundraising page is important for overcoming the barrier of receiving no donations. As a key implication for practice, we present how to better realize peer-to-peer fundraising campaigns within a nonprofit-business collaboration setting.

Keywords

Online philanthropy, fundraising best practices, social network approach, signaling theory, direct observable data, web crawling

1 INTRODUCTION

Over the past decade, peer-to-peer fundraising has attracted increasing attention from both scholars and practitioners (Castillo et al., 2014; Chapman et al., 2019; Hesse & Boenigk, 2023; Martin & Schlereth, 2020; Meer, 2011; Scharf & Smith, 2016; Smith et al., 2015; Tofighi et al., 2020). Nonprofit scholars, exemplified by Chapman et al. (2019), Hesse and Boenigk (2023), and Smith et al. (2015), have started to explore peer-to-peer fundraising in terms of its distinction from traditional fundraising or crowdfunding approaches (van Teunenbroek et al., 2023). These authors share the common understanding that peer-to-peer fundraising is a specific fundraising strategy in which private individuals, referred to as peer fundraiser, operate as advocates for their favorite social causes by actively reaching out to other individuals, referred to as peer donors, on behalf of a nonprofit organization (Chapman et al., 2019, p. 573). The American Heart Walk, for example, is recognized as the largest U.S. peer-to-peer campaign (American Heart Association, 2024). Association supporters engage as peer fundraisers, encouraging their private social network (family and friends) to donate toward research on cardiovascular health in exchange for their involvement in the walk.

Nonprofit practitioners acknowledge the growing significance of peer-to-peer fundraising in the sector; however, they highlight the substantial impact of crises such Covid-19 on its success. The number of participants in U.S. peer-to-peer fundraising campaigns declined from approximately 6 million in 2016 to 2.2 million people in 2020 (Hessekiel, 2022). Consequently, many nonprofit organizations are actively working to increase participation in peer-to-peer campaigns to secure success.

Against this background, a burgeoning field of research has emerged, focusing on peer-to-peer fundraising success and its antecedents (Chapman et al., 2019; Hesse & Boenigk, 2023; Meer, 2011; Priante et al., 2021). Based on reviewing this literature, we identify at least three research gaps which we address with our research.

The first research gap is related to the theoretical understanding of peer-to-peer fundraising success. Although the notion of success and antecedents have been discussed in previous peer-to-peer studies (Meer, 2011; Scharf & Smit, 2016; Smith et al., 2015), the literature is overall at a very early stage of research, and conceptualizations are fragmented. This is particularly notable in the perspective adopted, with some studies taking a donor-centric perspective, and more recently, a peer fundraiser-centric perspective. In the donor-centric perspective, success is evaluated based on the donor's individual donation amounts, whereas the fundraiser-centric view assesses the success of individual fundraisers within a peer-to-peer campaign, measured

by the total donation amount raised by each fundraiser. Until now, most studies took a donor-centric view, and highlighted antecedents, such as strong social ties (Meer, 2011), relational altruism (Scharf & Smith, 2016), or donor inspiration (Hesse & Boenigk, 2023), as relevant. A crucial need remains for further conceptualization on the fundraiser-centric view to achieve a more comprehensive understanding of peer-to-peer campaign success. We aim to close this gap by theorizing and conceptualizing relevant antecedents.

Second, the few studies that already took a fundraiser-centric view did not conceptualize and measure peer-to-peer fundraising success in comparison to non-success. Most often, studies have excluded peer fundraisers who have raised no donations from their empirical analysis (Chapman et al., 2019; Scharf & Smith, 2016) or lacked further exploration into why some peer fundraisers are not successful (Priante et al., 2021). However, according to the fundamentals of social impact measurement outlined by Ebrahim and Rangan (2014), an essential aspect of assessing the impact of an action involves the comprehensive evaluation of various outcomes, including zero-outcomes. This includes comparing groups, such as successful versus unsuccessful, thereby surpassing the limited insights derived solely from success stories (Fan-Osula et al., 2018). We follow this empirical approach. Thus, our second aim is to close this gap by identifying those antecedents that distinguish successful from unsuccessful peer fundraisers.

Third, the prevailing focus of peer-to-peer fundraising research has been on peer interactions between family and friends in a private setting (Chapman et al., 2019; Smith et al., 2015); however, a gap remains in analyzing peer-to-peer nonprofit–business contexts (Hesse & Boenigk, 2023; Lin et al., 2019). According to Hessekiel (2022) these types of peer-to-peer partnerships are increasing in practice. A typical characteristic is that the peer fundraiser is no longer a family member or friend but rather someone within the broader relationship network of the donor. A recent example from 2024 is the Workout for Water campaign of Les Mills supporting UNICEF New Zealand (www.workoutforwater.org). Therewith, new actors such as for-profit companies and their employees are involved in the peer-to-peer campaigns. Consequently, communication, financial transactions, and overall planning becomes more complex (Saxton & Wang, 2014; Priante et al., 2021). Therefore, the third aim of this study is to provide more knowledge on the specifics of peer-to-peer fundraising in a nonprofit-business context.

Our contribution to the peer-to-peer fundraising literature is threefold. First, this study is among the first to develop a framework on antecedents driving peer-to-peer fundraising success. Second, our work is among the first that compares successful and unsuccessful peer fundraisers within one campaign, and therewith contributing to a more comprehensive understanding of

success (Ebrahim & Rangan, 2014). Third, our emphasis on peer-to-peer fundraising within a nonprofit-business collaboration context adds a novel dimension to the literature, providing insights into unexplored dynamics in this collaborative setting. Further, our study holds practical contributions for fundraising management by identifying crucial drivers for peer fundraiser success. This offers actionable guidance for preselecting effective peer fundraisers and provides specific recommendations to enhance their fundraising success.

2 CONCEPTUALIZING ANTECEDENTS OF PEER-TO-PEER FUNDRAISING SUCCESS

2.1 Theoretical positioning of the study

The present study is positioned within middle-range theory. The concept of middle-range theory was first introduced by Merton (1968). It serves as a theoretical framework that bridges the gap between highly abstract theories (grand theories) and specific empirical observation within a particular domain (Brodie, 2011; Stank et al., 2017). While grand theories attempt to explain a wide range of phenomena (Weick, 1989), middle-range theories rely on existing evidence within a specific field of study to develop a context-specific understanding of relationships between constructs and the conditions under which they occur (Merton, 1968). Weick (1989) argues that middle-range theories are essential, countering the tendency of grand theories being over-adaptable, with all assumptions remaining plausible. Scholars from various disciplines such as service (Brodie et al., 2011), logistics (Pellathy et al., 2018; Stank et al., 2017), and marketing (Woodside, 2003), have applied this approach to address real-world problems.

We argue that the need for a refined conceptual grounding of peer-to-peer fundraising success is evident in its distinct nature from traditional fundraising with a new actor – the peer fundraiser – being introduced in the network. This shift challenges traditional fundraising assumptions centered on the dyadic donor-nonprofit organization relationship (Bhati & McDonnell; Sargeant, 2001), emphasizing instead the significance of personal connections (Smith et al., 2015) between peer fundraiser and donor. Moreover, as communication and donation transactions increasingly take place between peer donor and peer fundraiser, often facilitated by social media platform (Lin et al., 2019), it underscores the imperative for a redefined comprehension of peer fundraising success beyond the traditional dyadic understanding. Middle-range theorizing aligns well with this need. By synthesizing previous findings from fundraising literature,

connecting limited but realistic assumptions to more general hypotheses, it facilitates the extension of knowledge within peer-to-peer research. Following the guidelines provided by Stank et al. (2017), in a first step, we reviewed the literature on peer-to-peer fundraising (Chapman et al., 2019; Hesse & Boenigk, 2023; Meer, 2011; Smith et al., 2015) and identified potentially relevant antecedents. Second, we reflected on previous conceptual frameworks, in particular the "peer engagement behavior model" by Lin et al. (2019), and then developed our own theoretical rationale based on social network theory combined with signaling theory. Drawing on these theories, we formulate specific, testable hypotheses, creating a link between theories and tangible observations.

2.2 Review of academic peer-to-peer literature

Our work is related to a body of conceptual and empirical studies from two areas of research that provide insights into antecedents of peer-to-peer fundraising success. First, we draw on studies within the peer-to-peer fundraising literature to provide existing knowledge in the domain (e.g. Chapman et al., 2019; Hesse & Boenigk, 2023; Meer, 2011). Second, we complement this knowledge with findings from the peer engagement literature within the service domain (Lin et al., 2019) which provides us with a more comprehensive conceptualization. Appendix A summarizes the main findings of these studies and shows how our work is distinct. A review of the related literature reveals three key observations.

(1) Peer-to-peer fundraising: Donor-centric view in a private setting

The early studies in peer-to-peer fundraising literature have predominantly adopted a donor-centric view (Meer, 2011; Scharf & Smith, 2016; Smith et al., 2015). Emphasizing the individual donation decision by a peer donor as the main outcome of success, these studies specifically focus on scenarios where peer donors are from peer fundraisers' close social network, aiming to identify antecedents influencing the donation decision. For example, based on data from 18,060 alumni of a large university in the United States, Meer (2011) identifies strong social ties and shared characteristics as key antecedents impacting both the likelihood of donation and the donated amount. Furthermore, Scharf and Smith (2016) and Smith et al. (2015) investigate Facebook fundraisers, revealing that the majority of donations in their dataset originated from family members, friends, or work colleagues. Smith et al. (2015) empirically confirm the information on earlier donations on a peer-to-peer fundraising platform as significant antecedent, influencing subsequent donations. Scharf and Smith (2016) reveal a negative correlation be-

tween the size of the fundraiser group and the amount of donations given by peer donors, highlighting group size as an antecedent. In smaller groups, peer donors exhibit a greater concern for the peer fundraiser reaching its goals, leading to increased donations—a phenomenon they call relational altruism.

(2) Peer-to-peer fundraising: peer fundraiser-centric view in a private setting

In recent years, there has been a paradigm shift with an emerging body of studies taking a peer fundraiser-centric approach (Chapman et al., 2019; Priante et al., 2021; Sepheri et al., 2021). Emphasizing the total amount raised by an individual fundraiser as measure of success, these studies specifically focus on identifying success antecedents in private settings. This literature stream has collectively identified ten antecedents and six control variables influencing the amount of donations collected by a peer fundraiser, which we broadly categorize into three categories. The first category of antecedents primarily centers around the actions taken by peer fundraisers to enhance donation outcomes. Chapman et al. (2019) identified that peer fundraisers who (1) identify more strongly with the selected charity, (2) took more actions to solicit donations, (3) signal their personal investment, (4) signal efficacy of the charity, and (5) aim for a high target were more successful in raising donations. Other best practice actions that have been emphasized in previous research include the participation in an online fundraising group, having a high volume of Twitter activity (Priante et al., 2021), and the usage of indirect fundraising appeals (e.g., narratives written in the third person) compared to direct appeals (e.g. narratives written in the first person) (Sepheri et al., 2021). The second category of antecedents encompasses social network-related antecedents. Priante et al. (2021) confirm that fundraisers with a moderate level of centrality on Twitter and who participated in online fundraising groups collected higher donation amounts for the Movember campaign. Furthermore, they empirically show the curvilinear effect of groups size on donation amounts. The third category of antecedents are fundraiser-related personal attributes, which have been treated as controls. Priante et al. (2021) find that being male, having a high income, possessing campaign experience, and serving as a group captain positively influence donation amounts in this peer-to-peer fundraising context.

(3) Peer-to-peer fundraising in a nonprofit-business collaboration context

Research within the service literature, led by Lin et al. (2019), contributed to the gap of missing knowledge in peer-to-peer business contexts by conceptualizing peer engagement behaviors in a peer-to-peer business context proposing a definition and characteristics, as well as a set of research questions for future research. Drawing on social network theory, Lin et al.'s (2019)

peer engagement behavior framework contains three categories of antecedents: (1) peer provider-based antecedents, comparable to peer fundraisers, involving factors initiated by the peer provider, such as service quality, reputation, and information exchange; (2) peer-customer-based antecedents, resembling peer donors, encompassing considerations such as cost/benefit analysis and relationship quality; and (3) peer-platform-based antecedents, involving platform interactivity and signaling. These insights provide a theoretical foundation for the conceptual development of our study on peer-to-peer fundraising success, as Lin et al. (2019, p. 398) proposed that "peers display greater degrees of engagement behaviors" if they interact in an altruistic and social-driven peer context.

2.3 Conceptual Framework

Figure 1 provides a visual representation of our conceptual framework of antecedents driving peer fundraising success. It consists of three main elements: the peer-to-peer network structure in nonprofit-business collaboration, antecedents from a peer fundraiser-centric view, and the individual peer fundraiser success as the intended success outcome under study. As previously mentioned, the conceptualization is theory-driven at a mid-range level, and grounded in social network and signaling theories, aligning with previous research (Saxton & Wang, 2014; Lin et al., 2019; Priante et al., 2021).

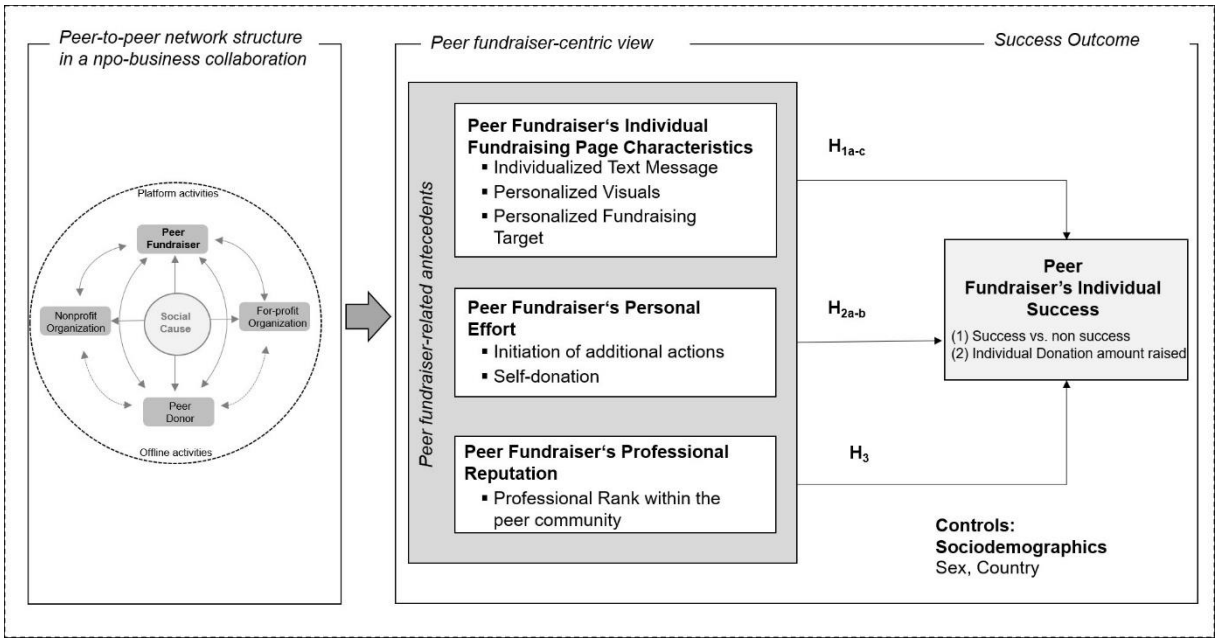


Figure 1. Framework of Antecedents Driving Peer Fundraising Success.

Peer-to-peer network structure. Social network theory outlines how relationship structures organized within a social network of social actors (such as individuals, organizations, or groups)

influence behaviors of and resource exchanges between those actors (Burt, 1997). Thereby, social networks are conceptualized as social structures that extend beyond isolated dyadic relationships (Krause et al., 2007). Actors within these networks are linked by various social ties and relationships that influence the behaviors of others within the same network (Burt, 1997). This is in line with the notion of Lin et al. (2019). Consequently, we first visually capture the interconnectedness of key actors involved in peer-to-peer nonprofit-business collaboration, including peer fundraisers, peer donors, nonprofit organizations, and for-profit organizations (Figure 1). These actors collaboratively work toward supporting a specific social cause, often on peer platforms enabling communication and resource exchange (Lin et al., 2019). Further, social network theory argues that not all links within the social network hold equal importance (Brass, 2022; Kilduff & Brass, 2010). Certain actors may occupy central positions, serving as connectors between various actors of the network, while others may play more secondary roles. Although we acknowledge that the success of the peer-to-peer fundraising campaign is dependent on the social relationships between all actors, our conceptual framework primarily focuses on peer fundraiser-related antecedents. This is supported by social network theory for two reasons. First, peer fundraisers serve as a bridge between peer donors and nonprofit organizations, facilitating connections and information flow (Brass, 2022; Burt, 1992). Second, the centrality of peer fundraisers contributes to the overall network's stability. Social network theory highlights that the removal of central actors can significantly impact network dynamics (Brass, 2022).

Peer fundraiser-related antecedents. As shown in Figure 1, we conceptualize three categories of antecedents that we posit to influence the peer fundraisers' individual success: peer fundraisers' individual fundraising page characteristics, peer fundraisers' personal effort, and peer fundraiser's professional reputation. The first category is based in Lin et al.`s (2019) arguments that peer-to-peer campaigns are most often realized on online platforms and therefore platform-related factors and communication (standard text, colors, visuals, etc.) are highly relevant for the peer-to-peer campaign success. This reasoning is also embedded in signaling theory. According to signaling theory, signals (text messages, visuals, etc.) are employed to effectively communicate credible information about the signalers' (peer fundraisers) qualities or attributes, aiming to diminish uncertainty and persuade decision-making of the receiver; in our context, the decision of the peer donor to donate (Conelly et al., 2011; Spence, 1973, 2002; Taj, 2026). The second category of antecedents that we conceptualize is the personal effort signaled by a peer fundraiser. Thereby, our conceptualization aligns with the concept of "costly signaling" (Kharouf et al., 2020) within the framework of signaling theory. This underscores the significance

of individuals undertaking actions that involve a considerable investment of time, effort, or resources, creating signals that are challenging for those individuals with lower commitment to replicate. Specifically, by putting personal effort into the campaign beyond the comparatively smaller task of individualizing the fundraising page, the peer fundraiser signals a profound commitment and dedication. The third category of antecedents that we conceptualize is the peer fundraisers' professional reputation. Within the framework of signaling (Spence, 1973, 2002), reputation can be regarded as a signal of trustworthiness which leads to success. Reputation can be conceptualized differently depending on the context. In a business context, it is likely that the position an individual hold is related to the signaled reputation. In the next section, we develop single hypotheses for each factor visualized in Figure 1. We are aware that other antecedents could exist that potentially play a role in peer fundraisers' individual success. However, our conceptual framework is rooted in mid-range theory and therewith prioritizes observable phenomena from our real-world example.

Success Outcome. Distinct to previous conceptualizations of success, our framework encompasses a dual perspective. First, we delve into the binary nature of success and non-success, echoing the proposition by Fan-Osuala et al. (2021) that a comparative analysis of successful and unsuccessful peer fundraisers provides a profound understanding of the patterns leading to fundraising success which is also anchored in impact literature (Ebrahim & Rangan, 2014). Second, our conceptualization extends to quantify success, placing particular emphasis on the individual donation amounts raised in successful cases. The exact amount of donations received provides further insights into the effectiveness of different antecedents (signals) in driving success.

2.4 Hypotheses Development

Peer fundraiser's individual fundraising page characteristics

Peer fundraisers' individual fundraising page characteristics represent the first category of antecedents we propose, influencing fundraisers' success. Particularly, in the nonprofit-business collaboration context, peer fundraisers interact with donors primarily through a campaign-specific platform (Lin et al., 2019). Based on signaling theory (Spence, 1973, 2002), the platform can thus be regarded as a medium through which peer fundraisers (signalers) can transmit signals to the peer donors (receivers). These signals refer to specific characteristics of peer fundraisers' individual pages that serve as indicators of their credibility, commitment, and effort.

This could include updates made to the fundraising page (Chapman et al., 2019), personal stories shared (Sepheri et al., 2021), or the level of engagement through direct messages. Chapman et al. (2019) underscore the significance of individual pages, revealing a positive correlation between actions taken by peer fundraisers, such as updating their pages, and increased donation amounts received by peer fundraisers. Within our targeted campaign, we propose three specific characteristics serving as signals, and therewith as key antecedents to success.

The first characteristic is the *individualized text message* on the individual fundraising webpage. Research suggests that the donation appeal text is considered to be a key element in the success of an online campaign (Geiger & Moore, 2022; Sepehri et al., 2021). For example, using a meta-analytical approach, Geiger and Moore (2022) find that the amount and style of text used to describe a crowdfunding campaign are positively associated with fundraising success. We argue that the individualization of text messages serves as an intentional strategic signaling element to communicate information to the peer donors. In our research context, peer fundraisers could follow standard communication to promote the project or interact with others in a more individualized manner. Building on Majumdar and Bose's (2018) arguments, we hypothesize that the individualization of a text message enhances its persuasive impact by signaling the importance of the campaign to the peer fundraiser. Thus, we hypothesize the following:

H1a: *Providing an individualized text message on the individual fundraising page is positively related to the total amount of donations received by the peer fundraiser.*

The second characteristic is the *personalized visual* of the peer fundraiser. Existing literature on fundraising communication underscores the positive impact of visuals on fundraising success (Kim, 2020). However, a notable gap exists in the exploration of the influence of personalized visuals of peer fundraisers on their fundraising success. Informed by signaling theory, we posit that showcasing a personalized visual creates a more meaningful connection between peer fundraiser and donors. We hypothesize that this enhanced personal connection increases the likelihood of fundraising success for peer fundraisers. Therefore, our hypothesis posits that, within the framework of signaling theory, the personalization of visuals acts as a signal, influencing the peer-to-peer fundraising success in the context of nonprofit-business collaboration. Thus, we hypothesize the following:

H1b: *Providing a personalized visual on the individual fundraising page is positively related to the total amount of donations received by peer fundraisers.*

The third characteristic is *setting a personalized fundraising target* to signal a specific monetary goal to potential donors. Literature on peer-to-peer fundraising discusses the potential effects related to setting a personalized fundraising target, which are conceptually distinct (Argo et al., 2020; Chapman et al., 2019; Smith et al., 2015). First, literature indicates that simply displaying a personalized fundraising target on fundraising pages has a positive impact on the donation behavior of peer donors (Smith et al., 2015). Second, in a similar vein, Argo et al. (2020) suggest the existence of a "completion effect" in charitable crowdfunding. Having a fundraising target may be beneficial because donors aim to be the ones who complete the campaign by making a donation that reaches the target and therefore make larger donations. Third, Chapman et al. (2019) highlight the importance of communicating the target amount on a peer fundraiser's fundraising page. Accounting for whether the peer fundraisers in a campaign changed the standard target suggested by the fundraising page, they report significant empirical proof for the relation between setting a higher fundraising target than suggested and the subsequent money raised. Therefore, we argue that the signal of a personalized fundraising target fosters fundraising success, as donors are likely to adopt the target of the fundraiser as their own. Distinct from Chapman et al. (2019), we consider the actual target amount. Thus, we hypothesize the following:

H1c: *The amount of the personalized fundraising target on the individual fundraising page is positively related to the total amount of donations received by the peer fundraiser.*

We assume this effect to appear as long as the donors perceive the targeted amount as realistic (Kamatham et al., 2021).

Peer fundraiser's personal effort

We acknowledge that fundraisers' personal effort is likely to generate a reciprocal response from donors, driven by the motivation to contribute in exchange for the effort (Argo et al., 2020; Scharf & Smith, 2016). This reciprocity is grounded in signaling theory's premise that individuals are inclined to reciprocate when faced with signals of commitment and effort. We define peer fundraisers' personal effort as additional actions, beyond the appearance on the webpage, undertaken by peer fundraisers to raise money successfully. We contextualize two forms of personal effort. First, personal effort is observable in the form of investing extra time to raise funds; more specifically, through the *initiation of additional actions* for promoting the social cause. An example is when a peer fundraiser realizes an additional offline or online event or challenge to support the fundraising. This form of personal effort creates the impression that

the peer fundraiser cares about the social cause and the community (Breeze & Jollymore, 2017). Thus, we hypothesize the following:

H2a: *Initiating additional actions for promoting a peer fundraising campaign is positively related to the total amount of donations received by the peer fundraiser.*

Second, personal effort is observable in the form of investing one's own money. We expect peer fundraisers making a *self-donation* to the social cause on their individual fundraising webpage through the same donation process as the peer donors to be more successful. There is a lack of information regarding self-donation in the peer fundraising context. We believe that self-donation behavior is especially important in the nonprofit-business collaboration context, as peer fundraisers and donors have a looser relationship. Therefore, investing one's own money can have a strong signaling effect showing that the peer fundraiser not only cares about fundraising but the well-being of the beneficiaries. Indeed, drawing on a crowdfunding context, Du et al. (2020) report that a self-donation positively impacts the charitable project's probability of achieving fundraising success and enlarges the number of donations in that it attracts donors by signaling quality. The authors anchor this effect on the theory of warm-glow (Andreoni, 1990). Therefore, we assume that self-donation within peer-to-peer fundraising might be a signal of quality; however, we also argue that self-donation might signal the trust and care on the part of the peer fundraiser. Hence, we hypothesize the following:

H2b: *Making self-donations to the individual fundraising page is positively related to the total amount of donations received by the peer fundraiser.*

Peer fundraiser's professional reputation

Based on social network theory (Burt, 1992), we consider the peer fundraiser's professional reputation within the peer network as success antecedent. Empirical evidence is limited, but indications have been presented about the importance of a peer fundraiser's reputation within the peer community for fundraising success (Priante et al., 2021; Scharf & Smith, 2016). Studies have highlighted that the reputation of peer fundraisers results in a larger peer network, which in turn results in more potential donors (Scharf & Smith, 2016). For example, Rindova et al. (2006) suggest that an individual's position within a network is often influenced by the formal position the individual holds. In our context, peer fundraisers' reputation is based on their professional rank as a fitness instructor. Fitness instructors with a higher rank are likely to

have a greater reputation, a larger peer network, and signal more trustworthiness. Consequently, we assume that peer fundraisers who have earned a higher rank within the peer fitness community has a higher professional reputation as a fundraiser. Thus, we hypothesize the following:

H3: *Peer fundraisers' higher professional rank within the peer community is positively related to the total amount of donations received by the peer fundraiser.*

Controls

Our study context has several variables to control for. However, based on the available data, we can only consider peer fundraisers' sociodemographic characteristics in terms of sex and country as controls. Fundraising studies have confirmed the impact of sociodemographic factors on fundraising success (Dale et al., 2018). For example, Priante et al. (2021) find male fundraiser being more successful. Regarding the influence of country, we also respond to the call of Chapman et al. (2019) by testing peer effects in a different cultural context.

3 Method

3.1 Research Context

Our research context is the Workout for Water (WFW) peer-to-peer campaign 2019, initiated by Les Mills and UNICEF. The WFW project's social mission is to provide every child in East Africa access to clean water (for the current 2024 campaign see: WorkOutForWater.org). Worldwide, the Les Mills network consists of about 20,000 partner fitness clubs and 140,000 fitness instructors who can potentially function as peer fundraisers for the campaign. The fitness instructors can participate in the campaign by setting up an individual fundraising webpage (Appendix B) on the WFW platform, where they can raise money for the cause. All financial transactions are carried out via the platform. The platform enables the peer fundraisers to customize their fundraising pages by, for example, writing a personalized donation text, changing their picture on the webpage, and setting a personalized fundraising target. Additionally, instructors can organize offline WFW fitness events (such as, push-up or swimming challenges) or make donations themselves. According to the official webpage, 3,297 peer individuals and teams participated in the WFW campaign, raising a total of USD 590,829 (by July 5, 2022). This study is part of a large empirical project on peer-to-peer giving. As mentioned earlier, this study takes the peer fundraiser perspective and examines success factors. In a complementary

project, we analyzed the context from a donor perspective (source: not cited to avoid self-identification).

3.2 Data Collection and Sample

For data collection, we combined two different data sources. First, we designed and implemented a python-based web crawling (Thomas & Mathur, 2020) to collect direct observable data on the WFW campaign. We extracted all publicly available information from the individual peer fundraiser webpages, spanning from March 2019, which was the start of the campaign, to January 2021. This study employs legal web scarping as timesaving method to collect publicly available data, ensuring ethical compliance with platform terms. While web crawling offers efficiency in collecting large datasets, enhancing research innovation and providing an alternative to traditional approaches such as survey data, thus overcoming measurement biases, it is crucial to acknowledge the challenges associated with its use (Luscombe et al., 2021). These include technical complexities, legal and ethical considerations, potential disruption to website performance, and the perception of researcher as hackers. These considerations underscore the need for responsible and ethical use of web scraping methodologies in fundraising research (Braun et al., 2018). Additionally, we encountered the challenge of structuring the scraped data during our research, emphasizing the importance of careful data extraction, transformation, and cleaning procedures to ensure the creation of a coherent and well-organized dataset.

Based on our web crawled data, we constructed a data set, where each observation captured a peer fundraiser, including the characteristics of their individual fundraising webpage, their personal fundraising target, their sociodemographic characteristics, and the funds raised until that point of the campaign. To validate the extracted data, we generated a random sample of 100 individual peer fundraising webpages and manually verified the web page's information. In total, we obtained data from 3,134 fundraising pages. We manually excluded fundraising teams (two or more individuals who raised funds together) from the data set. Furthermore, duplicates occurred because of the coded search path of the web crawler; some websites were revisited by the crawler. Our final data set included 1,899 individual peer fundraising webpages. For some analysis we split this sample in two subsamples, successful peer fundraisers (N = 851) and unsuccessful peer fundraisers (N = 1,048).

Second, we collected available information on recent job descriptions of each peer fundraiser individual from various social media and business networks, such as Instagram, LinkedIn, and

the Les Mills webpage, to classify the Les Mills fitness instructors by their rank within Les Mills. Table 1 gives an overview of the sample characteristics. The sample includes 1,899 peer fundraiser individuals, with 1,299 (68.4%) being females and 600 (31.6%) being males. The top three currencies represented in the dataset were USD (48.6%), NZD (20.4%), and EUR (17.3%). Furthermore, we find that 1,048 (55.2%) of the 1,899 peer fundraisers did not raise any donations from a peer donor on their individual fundraising platform.

Table 1. Sample Characteristics.

Variable	**Peer Fundraiser N = 1,899**	
	N	**%**
Sex		
Female	1,299	68.4
Male	600	31.6
Country zone representation (currency)		
USA (USD)	924	48.6
New Zealand (NZD)	388	20.4
Europe (Europe)	329	17.3
United Kingdom (GBP)	117	6.2
Australia (AUSD)	61	3.2
Canada (CAD)	39	2.1
Brazil (BRL)	28	1.4
Mexico (MXN)	7	0.4
Japan (JPN)	6	0.3
Donations raised		
Yes	851	44.8
No*	1,048	55.2

Note. In total, we found 1,093 peer fundraisers to have raised at least one donation. However, on 242 peer fundraisers' fundraising pages, the self-donation was the only donation. Therefore, they are included in the un-successful sample.*

3.3 Measurement

Table 2 provides a list of all the measures used in our study. In contrast to survey studies employing established scales, our study relies solely on observable data. In line with previous studies that have used observable fundraising data (Chapman et al., 2019), we measured most observable characteristics in a binary form.

Peer fundraiser's success. We measured the fundraising success using two distinct dimensions. Firstly, we adopted a binary approach, categorizing outcomes as either 0 (unsuccessful) or 1 (successful) based on the overall donation amount displayed on individual peer fundraising webpages throughout the study period. We consider peer fundraisers to be unsuccessful if no donation from a peer fundraiser is shown at their fundraising page. We excluded self-donations made by peer fundraisers, ensuring that the assessment solely accounted for contributions from external peer donors. Second, in addition to the binary classification, we quantified fundraising success by measuring the specific amount raised by the successful peer fundraisers, again deducting the self-donations. Furthermore, all donations to the fundraising platform were converted to USD.

Peer fundraisers' individual fundraising page characteristics.

We measured peer fundraisers' individual fundraising page characteristics using three distinct indicators. First, we measured *individualized text message* as a binary variable of whether the peer fundraiser individualized the text message on their individual fundraising page (coded as 1) or used the standard default suggested by UNICEF (coded as 0). Second, we used the same operationalization for measuring *personalized visuals* by assessing whether the peer fundraiser provided a personal picture (coded as 1) or left it blank (coded as 0). Third, we measured setting a *personalized fundraising target* as a continuous variable by accounting for the peer fundraiser's individual donation target communicated to the peer community on the fundraising page in USD. This measure was log-transformed for our analysis to achieve a normal distribution.

Peer fundraiser's personal effort

We first measured the indicator *initiation of additional actions* by accounting whether a peer fundraiser initiated additional actions in the form of a personal event (offline or online) to promote the WFW campaign (coded as 1 = additional effort). An example would be swimming one lap for every USD donated. Second, we measured *self-donation* as a monetary personal

effort by checking whether the name of the peer fundraiser was listed among their peer donors, with 1 = yes, a self-donation was made and 0 = no self-donation made.

Peer fundraisers' professional reputation

While reputation is often measured on established scales (e.g. Becker, 2018), We measured the peer fundraiser's professional reputation within the peer community based on the *professional job rank* they achieved within their fitness career at Les Mills. We classified global representatives, national trainers, assessors, and/or presenters as fitness champions (1 = champions) and all other individual peer fundraisers as regular fitness instructors.

Controls

Sex: We verified peer fundraisers' sex by using a name algorithm (Blevins & Mullen, 2015), as well as by referring to additional information from the professionals' accounts on Instagram, XING, and LinkedIn. *Country:* We measured the country representation by referring to the currency in which the peer fundraisers raised their donations. We validated these approaches by cross-checking with the information from the professionals' social media accounts. The small number of controls is one of the disadvantages of our direct observable data approach.

Table 2. Measurement.

Dimension	Variable	Measurement	Operationalization
Peer fundraiser's success: donation amount (dependent variable)	Financial Success	Continuous	Peer fundraiser's total donation amount raised on the peer platform within the study period. Self-donations made by the peer fundraiser were deducted from the total donation amount raised.
Peer fundraiser's individual fundraising page characteristics (independent variable)	Individualized text message	0 = no, standard default 1 = yes, personalized text	Binary variable, coded as 1 if the fundraiser changed the standard default of the donation text message
	Personalized visuals	0 = no, standard default 1 = yes, personalized visual	Binary variable, coded as 1 if the fundraiser changed the standard default of the picture

	Personalized fundraising target	Continuous	The log-transformed amount of donation targeted in USD by a peer fundraiser was displayed on the peer platform within study period
Peer fundraiser's personal effort (independent variable)	Initiation of Additional action	0 = no additional action 1 = yes, additional action	Binary variable, coded as 1 if the fundraiser initiated an additional online or offline challenge for the cause to generate donations.
	Self-donation	0 = no self-donation 1 = yes, self-donation	Binary variable, coded as 1 if the fundraiser also donated to their platform webpage (by checking whether the fundraiser is listed as a donor on their own platform webpage)
Peer fundraiser's professional reputation (independent variable)	Professional rank within the peer community	0 = regular trainer 1 = Champion trainer	Accounting for the fundraiser's professional reputation within the peer community by their job rank achieved within their fitness career. Binary variable, coded as 1 if the fundraiser is a global representatives, national trainers, assessors, and/or presenters.
Controls	Sex	1 = female 2 = male	Binary variable, coded as 1 if the name algorithm identified a name as male name. We cross-validated the gender with information on professional accounts on Instagram and Linked-In if possible
	Currency zone	1 = USD; 2 = NZD; 3 = EURO; 4 = Pound Sterling; 5 = AUSD; 6 = CAD; 7 = BRL R; 8 = MXN; 9 = JPN	Categorical variable, measured by referring to the currency in which the peer fundraisers raised their donations.

3.4 Data Analysis

For the data analysis, we applied a two-part model the Stata 17 twopm command to separately account for (1) the probability of observing that a fundraiser is successful versus raises zero donation, and (2) the amount of donation raised if the fundraiser raises more than zero USD

donations. The use of this approach is common in economic research to address biases that arise from a high frequency of zero-outcomes (Heres-Del-Valle & Niemeier, 2010). Estimation approaches like multiple regression model (OLS) are likely to produce biased estimates (Schmidt & Finan, 2018). Since a great number of peer fundraisers did not raise any donation, we face a large number of zero values for our dependent variable. Therefore, we chose the two-part modeling approach over others (Belotti et al., 2015). The first part consists of a binary choice model that estimates the probability of observing a zero vs a positive outcome. In this case, the outcome variable peer fundraiser's success is a dummy variable indicating whether the fundraisers received at least one donation or not. Once a positive outcome is observed, the second part of the model consist of a regression model to estimate the positive outcome; in our case the peer fundraiser's success being the continuous amount of donations received. Commonly used specifications for the two-part model involve logistic or probit models in the first part, followed by a generalized linear model (GLM) or ordinary least squares (OLS) regression with a logged dependent variable in the second part. The logit and probit in the first part are very likely to estimate the same marginal effects (incremental effect for dichotomous variables; for simplicity, in the following we refer to both as marginal effects). Depending on the distribution of the depended variable, GLM or OLS can be used for the second part. In our case, both specifications can be considered as appropriate. However, the advantage of applying a GLM with log link and gamma distribution compared to the OLS with a logged dependent variable is the interpretability of the results. The OLS with log depended variable needs a retransformation which is likely be biased (Uberti, 2017). To sum up, we consider the two-part model with a logit first part and a GLM with log link as appropriate approach for our data

4 RESULTS

4.1 Descriptive Results

The descriptive results for the overall sample and the two subsamples (successful and unsuccessful peer fundraisers) are shown in Table 3. With respect to the individual fundraising page characteristics in the final sample, we find nearly two-thirds (64.9%) of the peer fundraisers used a personalized visual, but only 8.1% composed an individualized text message.

The mean personalized fundraising target is USD 481.60, varying strongly between successful (mean = 700.65, SD = 981.74) and unsuccessful peer fundraisers (mean = 303.73, SD = 581.84). In terms of personal effort, a total of 205 peer fundraisers (10.8%) initiated an additional personal online or offline event, with personal effort being notably higher in the subsample of

successful peer fundraisers (additional event offered: 19.6%). A total of 617 (32.5%) self-donated to their own fundraising page, thereby on 242 peer fundraiser pages, the self-donation of the peer fundraiser was the only donation made. Consequently, those peer fundraisers were considered unsuccessful in raising donations from peer donors and displayed in the unsuccessful sample.

Furthermore, 173 (9.1%) of the peer fundraisers have a high professional rank within the peer community (e.g., global representatives, national trainers, assessors, and/or presenters). Among them, ten did not raise any donations. Interestingly, for our purpose, only 851 (44.8%) peer fundraisers received donations from peer donors, collectively raising a total of USD 212,797.42. We want to highlight that this number differs from the number displayed on the official campaign website as we just focused on individual peer fundraisers and not team fundraisers. Additionally, the self-donations of the peer fundraisers resulted in USD 28,249.64. The peer fundraisers collected a total donation amount between USD 0,00 and USD 6,974.00, with an average donation amount of USD 112.06 in the overall sample, and USD 250.06 in the successful sample. The average number of donations received in the successful sample is 6.82 donations. Appendix C presents the correlation matrix.

Table 3. Descriptive Results.

Variable	Total Sample	Successful	Unsuccessful		
	N = 1,899	**N = 851**	**N = 1,048**	**Min**	**Max**
Fundraising page characteristics					
Personalized text				0	1
No individualization	1,745 (91.9%)	732 (86.0%)	1,013 (96.7%)		
Individualization	154 (8.1%)	119 (14.0%)	35 (3.3%)		
Personalized visual				0	1
No personalization	666 (35.1%)	112 (13.2%)	554 (52.9%)		
Personalization	1,233 (64.9%)	739 (86.8%)	494 (47.1%)		
Personalized fundraising target (Mean)	USD 481.60	USD 700.65	USD 303.73		
Peer fundraiser's personal effort					
Additional actions				0	1
No additional actions taken	1,694 (89.2%)	684 (80.4%)	1,010 (96.4%)		
Yes, additional actions taken	205 (10.8%)	167 (19.6%)	38 (3.6%)		
Self-Donation				0	1
No self-donation	1,282 (67.5%)	476 (55.9%)	806 (76.9%)		
Yes, self-donation	617 (32.5%)	375 (44.1%)	242 (23.1%)		
Peer fundraiser's professional reputation					
Professional rank				0	1
Basic Trainer	1,726 (90.9%)	688 (80.8%)	1,038 (99.0%)		
Champion	173 (9.1%)	163 (19.2%)	10 (1.0%)		
Overall, donation amount raised (without self-donation)				0	6,974
0 USD	1,048 (55.2%)	-	1,048 (55.2%)		
1-10 USD	185 (9.7%)	185 (21.7%)	-		
11-50 USD	211 (11.1%)	211 (24.8%)	-		
51-100 USD	115 (6.1%)	115 (13.5%)	-		
101-500 USD	217 (11.4%)	217 (25.5%)	-		
501-1000 USD	55 (2.9%)	55 (6.5%)	-		
1000+ USD	68 (3.6%)	68 (8.0%)	-		
Number of Donation received from a peer donor				0	143
0	1,048 (55.2%)		1,048 (55.2%)		
1	332 (17.5%)	332 (39.0%)	-		
2-5	266 (14.0%)	266 (31.3%)	-		
6-10	98 (5.2%)	98 (11.5%)	-		
11-15	48 (2.5%)	48 (5.6%)	-		
16-20	39 (2.1%)	39 (4.6%)	-		

21-50	59 (3.1%)	59 (6.9%)	-		
50+	9 (0.5%)	9 (1.1%)	-		

4.2 Results of the Two-part Model

Pre-Analysis. Prior to conducting our main analysis, we assessed a variety of model assumptions. In this regard, we first calculated variance inflation factors (VIFs) and find all values to be below the threshold of 10, suggesting no multicollinearity problem (Hair et al., 2006). Then, we checked our data for heteroscedasticity using the Breusch–Pagan test and find the assumption to be violated, and confirmed this result graphically. Therefore, we estimated our model using the GLM with log link in the second part which uses robust sandwich estimator to correct for possible heteroscedasticity in the error term (Lokshin & Sajaia, 2004).

Results of the Two-part Model. Table 4 displays the results of the two-part model. Columns 1-3 present the results of the first-part logit model. Since coefficients for logit regression are not directly interpretable, we report the average marginal effects (AME) in column 3, which can be understood as percentage values in a logit model. Column 4 and 5 present the estimates and the standardized z-values of the GLM regression with log link and gamma distribution, which examines factors influencing the level of success. Column 6 and 7 show the combined marginal effects (Belotti et al., 2015), representing the overall impact of the independent variable on the outcome variable, considering both parts of the model. Please note that the twopm command in Stata does not provide separate marginal effects for each part, so we calculated the logit model individually to calculate marginal effects for the first part.

Results concerning peer fundraiser's individual fundraising page characteristics. The estimates of the peer fundraisers' individual fundraising page characteristics in both parts show positive and significant effects at a 5% level, confirming our hypotheses H1a-c. In part-one, the estimates (column 1) indicate the probability of raising donations increases with personalizing the fundraising page (personalized text = .565, personalized visual =1.53; setting personal target = .621; $p<.05$). Looking at the average marginal effects in column 3, peer fundraisers who individualize their text (.082, $p<.05$) significantly increase the probability of being successful on average by 8.2%, compared to those who left standard defaults (assuming that all other factors are held constant). Personalizing the picture (.246, $p<.001$) increases the success probability by even 24.6%. Since setting a personal fundraising target is a continuous variable, we calculated the conditional elasticity value and find it to be .0009. Thus, on average, a peer fundraiser is

0.09% more likely to be successful with every 1% increase in the personalized fundraising target amount.

Regarding the second part, the positive and significant coefficients of the GLM Model in Table 4, column 4, show that all three indicators (personalized text = .442, personalized visual =.501, setting personal target = .513; $p<.01$) also have significant positive effects in terms of influencing how much a peer fundraiser raises, conditional on raising any donation amount. Looking at the combined average marginal effects of both parts, the estimates (Table 4, column 6) show that peer fundraisers having an individualized text raise on average USD61.60 (SE: 15.94) more than those who don't, holding all other factors constant. Peer fundraisers with a personal picture raise USD70.14 (SE: 11.46) more than those who kept the standard default, holding all other factors constant. As the variable amount of the personalized fundraising target was log-transformed, the result of the average marginal effects is rather difficult to interpret. Taking the relative influence of the marginal effects into account, the standardized z-values in column 7 (Table 4) indicate that amount of the personalized fundraising target (8.86, $p<.001$) has the strongest effect on success in terms of personalizing the fundraising page.

Table 4. Results of the two-part model.

	First Part (Logit Model)			Second Part (GLM)		Combined Total Marginal Effects (AME)	
	(1) Coef. (SE)	**(2) z-Values**	**(3) AME**	**(4) Coef. (SE)**	**(5) z-values**	**(6) Coef. (SE)**	**(7) z-Values**
Individual Fundraising Page Characteristics							
Personalized text message	.565 (.238)*	2.37	.082**	.442 (.120)***	3.70	61.60 (15.94)***	3.68
Personalized visual	1.53 (.144)***	10.62	.246***	.501 (.184)**	2.73	70.14 (11.46)***	6.12
Personalized fundraising target (ln)	.621 (.037)***	16.70	.0009*** a)	.513 (.048)***	10.67	70.89 (8.04) ***	8.86
Peer fundraiser's personal effort							
Initiation of additional actions	.958 (.207)***	4.64	.138***	.980 (.095)***	10.35	154.67(17.01)***	9.09
Self-donation	-.367 (.132)**	-2.78	-.052**	.610 (.096)***	6.33	63.77 (12.09)***	5.27
Peer Fundraiser's Professional Reputation							
Professional rank	2.05 (.359)**	5.73	.278***	.885 (.105)***	8.43	164.84 (21.15)***	7.79
Controls							
Sex	-.493 (.138)***	-3.58	-.072***	-.140 (.120) n.s	-1.17	-23.78 (13.21) n.s	-1.80
Country							
NZD	.942 (.197)***	4.78	.136***	.090 (.116) n.s	0.77	25.06 (15.09) n.s	1.66
EURO	.331 (.183) n.s	1.80	.049 n.s	-.102 (.138) n.s	-0.74	-5.78 (14.70) n.s	-.039
POUND	.407 (.362) n.s	1.25	.060 n.s	.400 (.301) n.s	1.31	62.64 (51.05) n.s	1.23
Brazil	-.638 (.596) n.s	-1.07	-.093	-1.28 (.331)***	-3.89	-82.19 (11.79)***	-6.97
Australia	.367 (.370) n.s	.099	.054 n.s	.280 (.165) n.s	1.69	42.70 (25.45) n.s	1.68

	First Part (Logit Model)			**Second Part (GLM)**		**Combined Total Marginal Effects (AME)**	
	(1) Coef. (SE)	**(2) z-Values**	**(3) AME**	**(4) Coef. (SE)**	**(5) z-values**	**(6) Coef. (SE)**	**(7) z-Values**
CAD	-.035 (.520)$^{n.s}$	-.07	-.005 $^{n.s}$	-.192 (.265) $^{n.s}$	-0.72	-19.58 (25.13) $^{n.s}$	-0.78
Constant	-4.724			.651 (.253)**	2.57		
Observation	1,899			851			
Wald Chi^2	528.20						
Pseudo R^2	0.3597						
(1/df) Deviance				1.421			
(1/df) Pearson				1.946			

*Note. SE = Standard Error, p-values: *p <.05, **p <.01, ***p <.001, Sex is coded (female = 0, male = 1), Country (the reference category is peer fundraisers' raised money in USD, Mexico and Japan were excluded from the analysis as the N < 10). a) We calculated the elasticities as target as a continuous variable*

Results concerning personal effort. The initiation of an additional action has a significant effect in both parts of the two-part model, confirming H2a. The average marginal effect (.138, p<.001) shows that peer fundraisers who initiate an additional action are 13.8% more likely to be successful in receiving at least USD1 donation, assuming that all factors are held constant. The estimate in part two (.980, p<.001) shows that initiating an additional challenge also increases the amount raised by a peer fundraiser, once they raised at least USD1. The combined total marginal effect indicates that a peer fundraiser initiating an additional action receives on average USD154.67 (SE: 17.01) more than those who don't, holding all other factors constant. Considering the standardized values of all combined marginal effects in column 6, providing an additional action (9.09, p<.001) is the highest effect in the two-part model. Surprisingly, making a self-donation has a negative significant influence on the probability of being more successful (-.367, p<0.01). However, in part two (with a coefficient of .610, p <.001) we find the expected significant positive effect of self-donation on the donation amount raised, confirming H2b. We assume the negative sign in the first part resulting from the fact, that on 242 peer fundraiser pages, the self-donation of the peer fundraiser was the only donation made. The combined marginal effect estimate suggests that peer fundraisers who donated on their own fundraising page raise on average USD63.77 (SE: 12.09) more than those who did not, holding all other factors constant.

Results on professional reputation. The estimates of part one (2.05, p<.001) and part two (.885, p<.001) confirm the positive influence of professional reputation on the probability and level of success, confirming H3. The average marginal effect of the first part (.278, p<0.001) indicates that peer fundraisers who are a Les Mills champion instructor are 27.8% more likely to raise at least USD1 donation. The coefficient of the combined marginal effect in column 6 indicates that a Les Mills trainer with a higher professional reputation raises on average USD 164.95 more than a basic trainer, holding all other factors constant. Considering the standardized values of all combined marginal effects in column 7, this is one of the three highest effects in the two-part model.

Results controls. Sex: Among our controls, we find that male peer fundraisers in our campaign of interest are 7.2% less likely to raise at least one donation. There are no significant effects in the GLM part of the two-part model or in the combined marginal effects.

Country: Regarding the country, results must be interpreted in relation to the reference category—peer fundraisers raising money in USD. In both parts, only one effect is significant at the 5% significance level. Peer fundraisers raising donations in NZD are 13.6% more likely to

raise at least one donation. This might be as Les Mills originates from New Zealand. However, when they do so, there is no significant effect in raising more than peer fundraisers raising donations in USD. Peer fundraisers raising donations in Brazilian R raise significantly (USD82.19) less, if they raise donations. This is expected as average income in Brazil is less than in the United States.

Omitted variable bias. Despite the advantages of our methodological approach, omitted variable bias can be a problem and therefore, results need to be interpreted with caution. There is little information on, for example, actions the peer fundraisers pursued outside the platform in the classes, such as on the quality of relationship between the peer fundraiser (instructor) and the donor (fitness class participant). Based on web research, we know that two employees had the chance to visit UNICEF's projects to see firsthand the need to be met by the fundraising. This could have an effect on their motivation in a way that they are personally more committed to the cause and in raising donation. Grant (2008) shows that fundraiser who have met the beneficiaries of the donation are more successful in raising donation. It is conceivable that other such factors exist.

5 DISCUSSION

Recently, the interest in peer-to-peer fundraising has increased among researchers and practitioners. Peer-to-peer networks are regarded as valuable to stimulate donation behavior among peers. From a theoretical perspective, the peer-to-peer fundraising dynamic challenges traditional assumptions regarding philanthropic action as it draws on the "power of personal connections" (Smith et al., 2015, p. 1064) between fundraisers and donors. Through the introduction of a third actor (peer fundraiser) (Breeze et al., 2023), the nonprofit organization (Chapman et al., 2019) and even the social cause itself (Hesse & Boenigk, 2023) take a diminished role. Thus, theories centralizing the relationship between organizations and peer donors appear to no longer adequately explain the phenomenon (Sargeant, 2001). Although an emerging body of research has focused on why peer-to-peer fundraising is an efficient approach (Meer, 2011; Scharf & Smith, 2016), available knowledge and empirical evidence on favorable peer success antecedents remain limited, in particular in a non-business context. In response, our study contributes to an advanced theoretical and practical understanding of peer-to-peer fundraising in three ways.

5.1 Theoretical Implication

Our study yields at least three theoretical implications. First, our study contributes to the peer-to-peer fundraising literature by addressing a theoretical research gap related to the understanding of peer-to-peer fundraising success. Through the development of a mid-range theory-driven framework (Brodie, 2011; Merton, 1968), our focus centers on the antecedents influencing the success of individual peer fundraisers. Our study suggests that fundraising researchers should take a combined theoretical perspective and use social network theory (Burt, 1997) and signaling theory (Spence, 1973, 2002) to explain peer fundraising success. In doing so, social network theory highlights the interplay between the overall network structure of peer-to-peer fundraising campaigns, whereas signaling theory focuses on the characteristics and actions of individual actors and their signaling effect on other actors (Conelly et al., 2011). While we acknowledge and adopt the core logic of Lin et al. (2019) and conceptually suggest the significance of different actors within the network, we regard our conceptualization as an initial conceptual step, as we focus primarily on the central actor, the peer fundraiser (Chapman et al., 2019; Hesse & Boenigk, 2023). Future research should build upon this foundation to develop a more comprehensive framework that includes the antecedents of all actors, including peer donor, peer platform and organizational antecedents. This necessity is underscored by signaling theory, highlighting the complexity of reciprocal signaling dynamics. In the unique context of peer-to-peer networks, this complexity arises from actors simultaneously functioning as both signal receivers and senders (Taj, 2016).

Second, our study addresses a significant gap in literature by providing empirical evidence on antecedents that differentiate success from non-success among peer fundraisers. Drawing from signaling theory (Spence, 1973, 2002), we demonstrate that successful peer fundraisers strategically use signals such as individualizing the personal fundraising page, putting personal effort in the campaign, and being highlight reputed. Thereby, we contribute to literature by highlighting the importance of two signals previously not considered (Chapman et al., 2019; Priante et al., 2021). Peer fundraisers who engage in self-donation on their platform exhibit notably greater fundraising success than their counterparts who abstain from this practice. Leveraging insights from List and Lucking-Reiley (2002), we posit that the act of peer fundraisers financially contributing signals heightened credibility for the campaign. An interesting avenue for further research involves exploring why self-donation, while positively influencing the overall donation amount, fails to have a positive impact on the binary outcome of success versus non-success. This suggests nuanced signaling effects that may vary at different stages in a campaign,

warranting a closer examination. A second influential signal identified is the professional reputation within peer networks. Unlike other signals, such as actions or self-donation, reputation can be perceived as an unintentional signal within the framework of signaling (Conelly et al., 2011), as peer fundraisers lack direct control over it. The need for additional research on unintentional signals, transmitted without the signaler's awareness, adds layers of complexity to our understanding. This calls for research on exploring signals, including those with potential negative or unintentional connotations.

Third, our study contributes significantly to the literature by addressing the research gap related to the understudied area of nonprofit-business collaborations (Gazley & Guo, 2020). Through the lens of social network theory, our analysis of the peer-to-peer network structure, characterized by fundraisers employed in a fitness company, anticipates heightened connections of the peer fundraiser with the for-profit organization. This suggests that nonprofit organization may hold an even less central role in the peer-to-peer fundraising network (Brass, 2022; Kilduff & Brass, 2010) than in private settings due to their limited proximity toward donors and fundraisers. In comparing our findings on signaling antecedents in this context with those from private settings (Chapman et al., 2019; Priante et al., 2021), it is evident that aspects related to the individual peer fundraiser page and personal effort remain consistent in both contexts. However, the impact of reputation as a signaling antecedent might be context-dependent. In nonprofit-business settings, highly reputed peer fundraisers may hold more central positions compared to private settings (Priante et al., 2021). This observation is particularly pronounced in the fitness context, where national trainers occupy prominent positions in the network and aligns with social network theory highlighting the significant influence wielded by individuals in pivotal network positions through strategic connections. Further research is needed to validate these observations Future research is warranted to enhance the validity of these observations and explore reputation as a signaling antecedent in diverse fundraising contexts.

5.2 Managerial Implication

This study offers several managerial implications for nonprofit organizations. Considering that over half of the peer fundraisers that set up a peer fundraising webpage failed to raise even one donation, the first question the responsible fundraising manager should reflect on is whether peer-to-peer fundraising campaigns would have performed better in a business or private peer context. We can expect peer fundraising campaigns in a private context to require less organizational effort for nonprofit organizations and be easier to implement. Furthermore, the average

donation in this context (USD 250.06) is significantly lower than average donation (AUD 980) in private settings found by Chapman et al. (2019). However, our findings also indicate that in a business–nonprofit collaborative context, peer fundraisers with a high professional reputation within the network can achieve great success (8% of fundraiser accounted for 51.6% of campaign success). When planning such collaboration, managers should ensure they partner with for-profit organizations with highly reputed employees.

Additionally, we recommend that peer campaigns conducted in a business collaboration setting offer their employees the option to just donate rather than solely focusing on fundraising efforts. Our data shows a high willingness of peer fundraisers to contribute financially to the campaign, with all self-donations adding up to a donation amount of USD 28,249.64. Simultaneously, we found that 40% of the 617 peer fundraisers who personally donated failed to raise donations from their peers.

Another managerial recommendation is that nonprofit organizations should prioritize the implementation of a suitable peer fundraising infrastructure/platform. These peer platforms give peer fundraisers the chance to champion themselves. Our findings suggest that peer fundraisers who used the platform to individualize their webpage or show personal effort are more likely to be successful.

6 Limitation and Future Research

Our study presented in-depth evidence from a large real-world peer-to-peer campaign. Nonetheless, some limitations could not be addressed and rather provide opportunities for future research. First, we only referred to direct observable data as opposed to traditional survey data, limiting our ability to fully address potential omitted variable bias. Therefore, our results need to be interpreted with caution regarding causal interpretation of the independent variables (signals). It is possible that several effects are nil if we would control for other factors. Given that our results rely on visible signals in the campaign under study, the potential for unseen antecedents underscores the need for cautious interpretation. Future research should consider employing additional survey approaches and experimental studies to comprehensively examine unintentional signals that may influence the dynamics of peer-to-peer fundraising, aligning with Popper's (1972) emphasis on actively seeking evidence that challenges or refines existing conceptualizations.

Second, our theoretical foundation and framework needs to be further improved. Our results are based on a specific peer-to-peer fundraising campaign in a business–nonprofit collaboration

context, in which peer fundraisers are not necessarily related to the nonprofit organization outside the campaign, limiting their generalizability to private settings. We believe this holds especially true for the findings on the peer fundraisers reputation which, we argue, is likely to be context-specific. We invite future research to test the validity of this finding in various contexts and actively seek evidence that may challenge this finding.

Third, we want to encourage researchers to extend the current knowledge on the relation between the different actors involved in peer-to-peer fundraising and its success (Chapman et al., 2022). Our conceptualization indicates that nonprofit organizations currently occupy a decentralized position in the network. However, for sustained engagement and relationships with both peer fundraisers and donors, nonprofit organization should aim for a more central role in the long term. Simultaneously, it is an interesting research question to address the long-term beneficial outcome for nonprofit organizations and therewith refine the existing knowledge.

In conclusion, future research can enhance our conceptual framework by validating and reinforcing existing theories in the realm of peer-to-peer fundraising. Inspired by Karl Popper's philosophy of theory falsification (Popper, 1972), researchers can employ empirical testing and the falsifiability criterion to challenge or refine our prevailing conceptualizations. Connected to Popper's philosophy, we therefore view our identified limitations not as constraints but as integral aspects that inspire the iterative process of scientific inquiry. The ongoing refinement of theories, expansion of methodologies, and exploration of diverse contexts will contribute to the advancement of knowledge within the dynamic landscape of peer-to-peer fundraising.

APPENDIX

Appendix A. Selected Literature on Peer-to-Peer Fundraising.

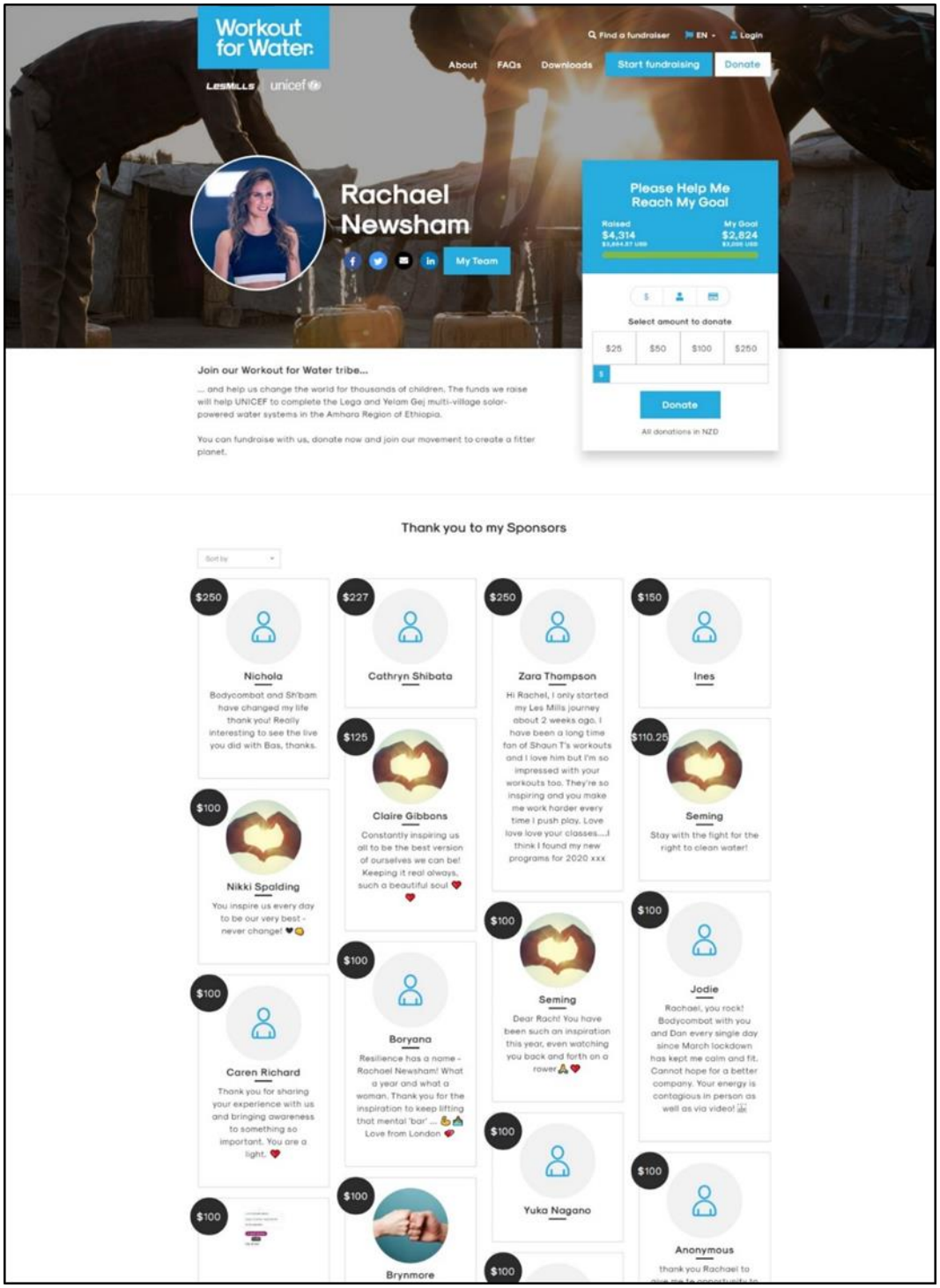
Author	Peer Donor View	Peer Fundraiser View	Private Context	Collaboration Context	Antecedent	Mediator/Moderator	Outcome	Method	Key Finding
Meer (2011)	X		X		(1) Social ties (2) Shared characteristics of solicitor and donor		Probability of making a gift Amount of the gift	Empirical Data from university alumni giving	• Strong social ties between peer fundraisers and peer donors lead to higher donations. • Peer fundraiser's request is more effective if they share socio-demographic characteristics with the potential donor
Smith et al. (2015)	X		X		(1) Information on earlier donations on the platform	(1) Target amount on fundraising page	Amount donated online Total online raised per page	Empirical Data from 12,000 fundraising pages	• £10 increase in the mean of past donations increases giving by £2.50, on average • If the peer platform signals an overall fundraising goal, peer donors are more likely to donate.
Scharf & Smith (2016)	X		X		(1) Group size (2) charity characteristics (3) controls: fundraiser characteristics (gender, age and income), fundraising event type, year/ month		*Main outcome:* Individual donation amount *Other* Total Number|amount of donation to one fundraising page	Empirical Data from 35,571 individual online fundraising pages in the UK	• the size of fundraisers' online social networks is positively associated with more but smaller donations raised by fundraisers • this effect is explained by donors caring about the fundraiser's success

Author	Peer Donor View	Peer Fundraiser View	Private Context	Collaboration Context	Antecedent	Mediator/Moderator	Outcome	Method	Key Finding
Chapman et al. (2019)		X	X		(1) Fundraiser identification with the nonprofit organization	(1) Solicitation: Emailed everyone, email reminders, asked in person (2) Investment: Update page, shared reason, uploaded photo (3) Efficacy: Donation impact, fundraising impact, shared charity information, specific donation (4) High fundraising target	Actual funds raised by each peer fundraiser	Empirical Survey and behavioral data from 1,647 peer-to-peer fundraisers	• Peer fundraisers who identify more with the cause, realize more actions, and are therefore more successful • Actions signaling the peer fundraisers' investment are more important than actions signaling the efficacy of the nonprofit organization
Priante et al. (2021)		X	X		(1) Centrality in social media communication networks (2) Participation in fundraising groups (3) Group network size *Control:* (1) fundraiser individual characteristics (gender, in-	-	Total amount of collected donations of each fundraiser	Empirical Data on 3,295 peer fundraisers participating in the Movember Campaign on Twitter	• Fundraisers with a moderate level of centrality, who participate in peer-to-peer fundraising groups collect more donations • A curvelinear effect of group size on donations amount exist • Being male, having a high income, being more experienced in the campaign, being a group captain, having a higher volume of

Author	Peer Donor View	Peer Fundraiser View	Private Context	Collaboration Context	Antecedent	Mediator/Moderator	Outcome	Method	Key Finding
					come, experience, group captain status) (2) Social media activity (3) Fundraising tactics				activity positively influences the donation amount collected
Sepheri et al. (2021)		X	X		(1) Indirectness of fundraising appeals: Use of personal pronouns	(1) Perceived Appeal Credibility	Amount donated toward a campaign page	Empirical (4 studies) Data from 9,017 fundraising appeals posted on GoFundMe & experimental design with 200 participants via online panel	• Indirect appeals lead to higher fundraising success than direct appeals • Direct appeals are associated with less credibility which negatively effects the donation amount
Hesse & Boenigk (2023)	X			X	(1) Source of inspiration *(cause, fundraiser, both)* (2) Controls: Donor characteristic & fundraiser characteristics	(1) Inspirational Intensity	Individual donation amount donated by peer donor	Conceptual & Empirical Direct Observable web scraping data from 8,697 peer donors	• Peer donors become inspired by a source, most likely peer fundraisers, to donate for a social cause. • Inspiration is a driver of peer donations, whereby donors who are inspired by both the peer fundraiser and the social cause show higher average donations.

Author	Peer Donor View	Peer Fundraiser View	Private Context	Collaboration Context	Antecedent	Mediator/Moderator	Outcome	Method	Key Finding
Our own study		X		X	(1) Peer Fundraiser's Individual Fundraising Page Characteristics – (individualized text message, personalized visuals, personalized fundraising target) (2) Peer Fundraisers Personal Effort – (Initiation of additional actions, self-donation) (3) Peer Fundraisers Professional Reputation	-	Peer fundraiser success (overall donation amount)	Conceptual & Empirical Direct Observable web scraping data from 1,899 peer fundraisers	• personalizing the individual's online fundraising page is an important factor for overcoming the barrier of receiving no donations • personal efforts to initiate additional actions and peer fundraiser's professional reputation within the peer community drive the donation raised.

Appendix B. Example Peer Fundraiser Page for Workout for Water (Source: https://www.workoutforwater.org/fundraisers/rachaelnewsham/workout-for-water-nz)



Appendix C. Correlation Matrix.

	Variable	**1**	**2**	**3**	**4**	**5**	**6**	**7**
1	Personalized text	**1.00**						
2	Personalized visual	.15**	**1.00**					
3	Personalized fundraising target(ln)	.15**	.29**	**1.00**				
4	Additional challenge	.30**	.14**	.21**	**1.00**			
5	Self-donation	.16**	.28**	.34**	.18**	**1.00**		
6	Professional reputation	.17**	.22**	.22**	.30**	.16**	**1.00**	
7	Total donations raised	.22**	.20**	.26**	.45**	.20**	.46**	**1.00**

*Note. Pairwise correlation of explanatory variables *p <.05. **p <.01, Spearman–Rho Correlation.*

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Kapitel 3: Donor inspiration in nonprofit management: Conceptualization and measurement in a peer-to-peer context

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Donor inspiration in nonprofit management: Conceptualization and measurement in a peer-to-peer context

Laura Hesse and Silke Boenigk

Abstract

Drawing on previous conceptualizations of inspiration and the motivational theory of role modeling, this study reports on the development and testing of a donor inspiration framework in a peer-to-peer giving context. This framework proposes that individuals become inspired by a source, most likely peer fundraisers, to donate for a particular social cause. Based on observable donor data (N = 8,697) that were scraped from the platform of a large peer-to-peer fundraising campaign, the results confirm that donor inspiration is a driver of donation behavior. The authors find that the peer fundraisers, the social cause, or a combination, can function as the source of inspiration. The findings offer an initial conceptualization for donor inspiration, with concrete implications on donor recruiting strategies, and the design and implementation of peer-to-peer campaigns.

Keywords

Donor inspiration, fundraiser, motivational theory of role modeling, peer-to-peer giving, web scraping

1 INTRODUCTION

"You are such an inspiration for a lot of people and I am glad that I am able to join you for this worthy cause." This statement, posted on the donation platform of an online peer-to-peer fundraising campaign, is directed from a donor to a fundraiser. As this example illustrates, fundraisers can be an inspiration for potential donors to start donating to a certain cause. In nonprofit research, studies on motivational factors driving donation behavior have a long tradition (Bagozzi & Moore, 1994; Beldad et al., 2014; Dawson, 1988; Konrath & Handy, 2018; Sargeant, 2001). A well-accepted proposition in the literature is that at least eight mechanisms exist that explain why individuals donate money (Bekkers & Wiepking, 2011). These mechanisms include awareness of need, cost and benefits, altruism, reputation, psychological benefits, values, efficacy, and solicitation. This study is strongly related to the area of solicitation, referring to the mere act of being asked for a donation. Distinct ways of soliciting donors exist, for example, sending a fundraising letter or realizing a marketing campaign (Wang et al., 2023). However, a more indirect facet of solicitation, namely being inspired by peer fundraisers to donate, has rarely been studied. Therefore, we are positioning our donor inspiration study as a specific facet of solicitation, as it contributes to the overall understanding of why solicitation leads to donation behavior.

Donor inspiration is a rather new construct in nonprofit and donor management research. After carefully reviewing the nonprofit literature, we identified only two studies that used inspiration to some extent. Liang et al. (2016) highlight the role of inspiration in donation advertisements and point out that inspiration and positive emotions are interconnected. In a volunteering context, Nordstrom et al. (2022) investigated the actions and programs of a foundation and its inspirational effects on volunteerism. We concluded that donor inspiration is an interesting but insufficiently developed concept. It has high practical relevance because it could help nonprofit organizations attract new donors or volunteers, thereby securing resources to fulfill their mission. Nevertheless, more theoretical and empirical knowledge is needed to better understand the donor inspiration construct and its potential outcomes in various nonprofit contexts.

Considering this background, our first research aim is to conceptualize donor inspiration and establish its importance in nonprofit management research, building our theoretical foundation mainly on research from (social) psychology. In particular, Thrash and Elliot (2004), Thrash, Elliot, et al. (2010), Thrash, Maruskin, et al. (2010), and Thrash et al. (2014) introduced inspiration as a psychological construct with two processes, "inspired-by" and "inspired-to". We follow their approach and conceptualize our own donor inspiration framework. Moreover, we

built on the motivational theory of role modeling (Morgenroth et al., 2015), which states that role models are a source of inspiration for others. In the peer-to-peer context, we propose that peer fundraisers function as role models by providing an individual with the idea to donate money (Figgins et al., 2016).

The second aim of this study is to provide empirical evidence on the link between donor inspiration and donation behavior. Thereby, we build on previous studies, mainly from marketing (Böttger et al., 2017; Chopra et al., 2021; Das et al., 2022; Izogo & Mpinganjira, 2020). In particular, the study by Böttger et al. (2017) contributed to a better understanding of the measurement of customer inspiration by developing and validating a two-component scale in different buying contexts, finally confirming 10 items for the measurement. Moreover, Das et al. (2022) conducted a survey among 396 masstige luxury car buyers in India and confirmed that inspiration is associated positively with the cognitive, affective, and behavioral engagement of potential buyers.

Besides psychology and marketing, inspiration is found in the literature of other disciplines, for example, entrepreneur management (Wartiovaara et al., 2019), tourism (Liu et al., 2017), health (Robinson & Knobloch-Westerwick, 2020), or art (Welke et al., 2021). However, most of these studies were survey-based, and we are not aware of any empirical inspiration study that uses observable data as we intend to do.

To achieve both aims, we decided to conduct our study in a peer-to-peer campaign context, wherein "private individuals raise donations in their social network on behalf of a charity" (Chapman et al., 2019, p. 573), for two reasons. First, we believe that the peer-to-peer context facilitates greater visibility of the inspirational effect as the peer fundraiser and the potential donors share the same social network and communicate about their individual reasons to get engaged via an online platform. Second, we were able to collect observable real campaign data of a large-scale peer-to-peer fundraising campaign. We use the peer-to-peer partnership campaign of LesMills, a global fitness company, and UNICEF, as our research context. In this campaign, the fitness instructors of Les Mills function as peer fundraisers and inspire their social network to support the social mission of "clean water in Africa" organized via the "WorkoutForWater" peer-to-peer platform (workoutforwater.org). We collected a large dataset with information on 8697 donation transactions. To summarize, our study contributes to the literature in at least three ways: (1) The article theorizes the role of donor inspiration within the field of nonprofit fundraising studies, thereby augmenting the literature on motivational giving mechanisms. (2) To the best of our knowledge, the study is one of the very few that empirically

test donor inspiration based on a large observable data set, and therefore, we enrich academic knowledge with real campaign data. (3) We provide knowledge on inspiration as a driver of donation in the peer-to-peer fundraising context. Thus, our study contributes toward a more comprehensive understanding of relevant factors that potentially influence the giving behavior of peers, and our empirical findings will help nonprofit managers to advance their donor relationship management.

2 THEORETICAL BACKGROUND, FRAMEWORK AND HYPOTHESES

2.1 Motivational theory of role modeling, inspiration as a construct, and definitions

Our work adopted the motivational theory of role modeling by Morgenroth et al. (2015) as its key theoretical foundation and extended its fundamental arguments to a peer-to-peer fundraising context. Overall, the theory explains how individuals who are perceived as role models within a relationship or network influence and motivate others. Hu et al. (2020, p. 192) define role models as "individuals who exert a positive social influence on role aspirants." Moreover, psychological literature suggests that a role model can be anyone, from a close friend or family member, characterized by a high level of personal interactions, to a movie star, celebrity, or other influencers with looser interactions in an offline or online environment (Ruvio et al., 2013).

According to the theory, three distinct forms of how a role model motivates their role aspirants should be differentiated (Morgenroth et al., 2015). First, role models motivate others through their own behaviors. In this form, the role model demonstrates to the role aspirants how a certain goal can be achieved (for example, female mentors for women in engineering jobs; Dennehy & Dasgupta, 2017). The second form refers to role models who represent what is possible. Role models show the role aspirant the type of success they can achieve in the future. A well-known and often cited example within role model literature is Barack Obama. The third form, the focus of our study, is that role models are a source of inspiration. For example, Paice et al. (2002) stated that "excellent role models will always inspire" (p. 707).

Considering this theoretical background, a vital first step in conceptualizing donor inspiration is to define the term more precisely. Table 1 shows several selected definitions of inspiration in an overview. Previous definitions have moved from a rather broad and fragmented enumeration of typical characteristics to a clearer statement that inspiration is a motivational concept.

Table 1. Selected definitions of inspiration.

Authors	Definition	Core concept
Oxford English Dictionary; Simpson and Weiner (1989), adopted by Thrash and Elliot (2003)	"A breathing in or infusion of some ideas, purpose, etc. into the mind; the suggestion, awakening, or creation of some feeling or impulse, especially of an exalted kind" (p. 1036)	Inspiration
Chadborn and Reysen (2018); adapted from Arieti (1976)	"Inspiration acts as a motivational concept, in which inspiration is evoked (generated) from a source and a person then finds some means to transmit an idea and is driven to produce some creative outcome as a result" (p. 625)	Inspiration
Oleynick et al. (2014)	"Inspiration is a motivational state that compels individuals to bring ideas into fruition" (p. 1) …. "Inspiration is often elicited when a creator appraises his or her idea as creative, and it is posited to motivate actualization of the idea in the form of a product that is likewise appraised (by its creator and perhaps others) as creative" (p. 4)	
Definition proposed in this study	"Donor inspiration is a two-component psychological process between an idea generator, most often a fundraiser, a social project, or nonprofit organization, and a (potential) donor, that gives an individual the idea to support something new (inspired-by) and thus, triggers and intensifies the feeling to donate (inspired-to)"	Donor Inspiration

However, none of the existing definitions explicitly highlight the two-process logic by Thrash and Elliot (2004), Thrash, Elliot, et al. (2010), Thrash, Maruskin, et al. (2010), and we are unaware of any other study that defines donor inspiration. In their first study from the year 2003, the authors characterize inspiration by three elements: evocation, motivation, and transcendence (Thrash & Elliot, 2003, p. 885). In the following studies, the authors developed their conceptualizations further and distinguished two processes: inspired-by and inspired-to. The inspired-by process involves the "appreciation of and accommodation to the perceived intrinsic value of the evocative object" (Thrash, Elliot, et al., 2010, p. 489). The inspired-to process involves an individual's "motivation to transmit (for example, express, actualize, or imitate)"

(p. 489). Other studies have provided empirical support for the two-component logic of inspiration (Böttger et al., 2017; Chopra et al., 2021; Izogo & Mpinganjira, 2020; Liang et al., 2016; Sheng et al., 2020); we adopted the logic for our own definition and conceptualization of donor inspiration.

We define the term donor inspiration as a two-component psychological process between an idea generator, most often a fundraiser, social project, or nonprofit organization, and a (potential) donor, that gives an individual the idea to support something new (inspired-by) and, thus, triggers and intensifies the feeling to donate (inspired-to).

2.2 Donor inspiration framework and hypotheses

Figure 1 shows the donor inspiration framework in an overview. In our own conceptualization of donor inspiration, we adopt the two-process logic and apply it to the peer-to-peer context.

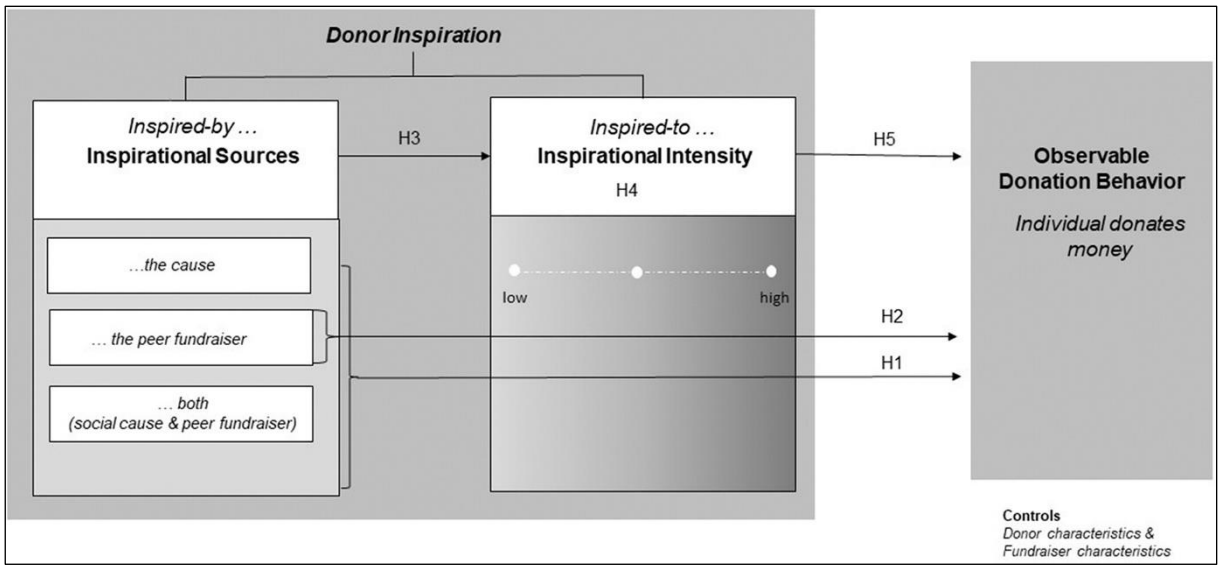


Figure 1. The donor inspiration framework.

First, the inspired-by process is an intrinsic motivational state that is not autonomously initiated but needs to be activated by an external idea generator, in our framework the cause, the peer fundraiser or a combination of both (Chapman et al., 2019; van de Ven et al., 2019; Wartiovaara et al., 2019). For example, imagine you are sitting with your friends in a restaurant and a homeless person sits outside in front of the entrance. A group of people around your age sit at the table next to yours and one of them walks out and donates their own meal (a pizza) to the homeless person. You may see this person as your role model and get inspired by them to donate your meal the next time you are in a similar situation. In this example, inspired-by is naturally evoked.

Second, the inspired-to process is the motivational component related to the intrinsic pursuit to realize an inspired idea, in this case, donating. The intensity of feeling inspired can vary depending on the person experiencing inspiration (Sheng et al., 2020). In Figure 1, we conceptualize a continuum from low to high inspirational intensity.

However, there is still a lack of clarity regarding the differences and similarities of the inspired-to process in comparison to related constructs such as intention to donate, donor loyalty, and donor retention (Beldad et al., 2014; Bennett & Barkensjo, 2005; Sargeant & Woodliffe, 2007). In their work on supporter loyalty, Wymer and Rundle-Thiele (2016) explain in more detail why loyalty and retention (positive word-of-mouth, donate again) should be seen as distinct constructs, which we do not repeat in depth here. However, they conceptualize supporter loyalty as a psychological, affective antecedent construct that is related positively to donation behavior. In our view, it is reasonable to believe that the inspired-to process is quite similar to supporter loyalty but at the same time differs in its focus on the transformation of nondonors to donors and not on established donor relationships, as in supporter loyalty. Nevertheless, more nonprofit studies comparing these constructs are needed. The only reason we did not integrate intention to donate into our own framework is that this study is based on observable data only, and it was not something we were able to operationalize with our data.

In the following subsections, we explain the development of our five hypotheses in more detail.

2.2.1 Inspirational sources

Previous studies have demonstrated that it is very likely that some inspirational sources work better for certain individuals, in certain situations or contexts (Das et al., 2022; Izogo & Mpinganjira, 2020). For example, in an online peer giving context, Chapman et al. (2019) found the solicitation of the peer fundraiser to be the main driver of peer donation, and the cause or the nonprofit organization to be secondary. Thus, we conceptualize in Figure 1 the existence of three different sources of inspiration within peer-to peer fundraising campaigns. First, individuals are inspired by the cause to donate money. It is very well accepted and often confirmed in traditional fundraising campaigns, that individuals are more likely to donate when they are emotionally touched by the social cause the campaign aims to support (Liang et al., 2016). Thus, the potential donor is inspired by the social cause. Second, individuals are inspired by the peer fundraiser to donate money. In line with motivational theory of role modeling (Morgenroth et al., 2015), we argue that when peer fundraisers make donation behavior seem desirable, they can inspire potential donors to adopt donation behavior. Consequently, the source of inspiration

could also be the direct solicitation by a peer fundraiser (Castillo et al., 2014; Chapman et al., 2019; Meer, 2011; Scharf & Smith, 2016). Third, we argue that donor inspiration could also be based on both factors, a mix of different sources/motives. This argument is congruent with the well-accepted notion that pure altruism rarely exists. A logical conclusion is that a combination of different giving mechanisms evokes the motivation to donate (Bekkers & Wiepking, 2011; Konrath & Handy, 2018). Thus, the first hypothesis is:

H1: *The type of inspirational source/s (peer fundraiser or cause, or both) makes a difference in triggering donation behavior.*

2.2.2 Inspired-by the peer fundraiser

We argue that due to the personal connection between a peer fundraiser and potential donor, donor inspiration will have a stronger effect on donation behavior when the source of inspiration is the peer fundraiser rather than the cause (Chapman et al., 2019). This is congruent with the existing body of literature that highlights the importance of the relationship between the peer fundraiser and donor in terms of peer donation behavior (Meer, 2011; Scharf & Smith, 2016; Smith et al., 2015). Nonprofit researchers have, for example, shared empirical evidence that fundraisers are a key determinant for fundraising success (Breeze & Jollymore, 2017). In an online peer-to-peer charity context, Chapman et al. (2019) show that donations are more influenced by peer fundraisers than any other actions, and call this the "champion effect". Peer fundraisers often inspire their peers to become engaged in a specific social cause, which the latter normally would neither be interested in nor have heard of before. Furthermore, the motivational theory of role modeling highlights personal relationships of individuals as the main trigger for inspiration and the subsequent behavior (Morgenroth et al., 2015).

However, we acknowledge that there are several other individual characteristics of the peer fundraiser that can trigger donation behavior, such as their personality (Meer, 2011), appearance on the campaign platform (Chapman et al., 2019; Priante et al., 2021), or trustworthiness (Breeze & Jollymore, 2017). However, we are limited to the information provided on the campaign webpage. Therefore, we hypothesize the following:

H2: *Peer fundraisers, as a source of inspiration, are more inspiring than the social cause in triggering donation behavior.*

2.2.3 Two-process logic of inspiration

Following the two-process logic of inspiration explained earlier, both processes of donor inspiration are required and closely linked (Thrash, Elliot, et al., 2010). An external source evokes the donor's idea of supporting a peer, next the donor needs to transit into a stage in that the feeling of realizing a donation is triggered. Conceptualizing a path between inspired-by and inspired-to is well accepted in inspiration studies, and empirically confirmed (Böttger et al., 2017; Izogo & Mpinganjira, 2020). Thus, we hypothesize that donor inspiration is a two-process construct, and:

H3: *The inspired-by process is positively related to the inspired-to process of donor inspiration.*

2.2.4 Inspired-to

Further, theoretical developments propose the inspired-to process as mediating the relationship between inspired-by and the actual behavior (Böttger et al., 2017; Thrash, Maruskin, et al., 2010). Izogo and Mpinganjira (2020) provide empirical evidence for this in a social media context. Following previous conceptualizations, the inspired-to process can be regarded as the motivational process that links the inspiration evoked by a source to actual behavior. While being inspired-by a source can lead to emotions like admiration (van de Ven et al., 2019), this does not lead to actual action if the individual does not feel the inner pursuit to realize the inspired behavior. Furthermore, Liang et al. (2016) empirically determined that inspiration functions as mediator in the relationship between different emotions in donation advertisements and the effectiveness of the advertisements. Accordingly, we assume that the two stages are causally linked and the inspired-to stage mediates the relationship between the inspired by-stage and the donation outcome. We hypothesize:

H4: *Inspired-to mediates the relationship between inspired-by and donation behavior.*

2.2.5 Donation behavior

Previous studies point out that the consequences of inspiration can be behavioral, emotional, and attitudinal in nature (Das et al., 2022; Izogo & Mpinganjira, 2020; Sheng et al., 2020). While behavioral consequences refer to the actual realization of the inspired idea (for example, donating), emotional consequences are those affective responses that are triggered by inspiration, such as delight or happiness (Das et al., 2022; Straume & Vittersø, 2012). In addition, attitudinal consequences refer to evaluative judgments that are more resilient than emotions,

such as well-being (Thrash, Elliot, et al., 2010), donor satisfaction, or donor loyalty. These are found to be particularly important for the donor experience (Beldad et al., 2014; Bennett, 2012). We agree with this notion; however, in the conceptualization, we focus on behavioral consequences as the intended outcome for nonprofit organizations. Behavioral consequences largely depend on the content of the inspired goal (Milyavskaya et al., 2012). In the peer-to-peer context, we believe that donor inspiration will most likely lead to donation behavior. We argue that donations are driven by the degree of inspiration a donor perceives. We hypothesize:

H5: *The higher the inspired-to feeling by the donor the greater observable donation behavior.*

3 METHOD

3.1 Research Context

This study is part of a large empirical project on peer-to-peer giving. In this article, we take the donor perspective and examine in detail the role of donor inspiration in the context of a worldwide peer-to-peer fundraising campaign. The campaign we focus on is a collaboration between a for-profit fitness company (LesMills) and UNICEF. Together, they initiated the campaign to ensure children access to clean and potable water in Africa. To reach this goal, they invited about 140,000 fitness instructors to engage in the campaign as peer fundraisers by using their social networks to inspire donations. They could set up an individual fundraising page on the official campaign's donation platform (see Appendix A). In addition, donors could leave a statement along with their donation.

3.2 Data Collection and Sample

For data collection, we programmed a python-based web scraper (Thomas & Mathur, 2019) to assess observable behavioral data on the official campaign platform, spanning the period between the start of the campaign in March 2019 until January 2021. Based on the scraped data, we construed a data set, where each observation corresponded to a donation transaction. For each donation, the data contained information about individual characteristics of the donor, an individual donor inspiration score, the source that triggered the inspiration, and the observable donation amount. We cross-checked the extracted data by generating a random sample of peer donors and manually verifying the information.

Overall, we obtained data on 10,128 transactions. We cleaned the data to exclude cases biasing the results. First, we excluded donations that were made by the peer fundraiser themselves on

their own fundraising page (N = 726). Second, we excluded donations that were automated donations made by the national trainer of LesMills to get the peer fundraisers started (N = 340). Third, we excluded transactions that were made by donation communities or companies to ensure that only individual donation behavior is considered (N = 399). Our final sample consists of information on 8697 donation transactions.

Additionally, 3494 donors wrote a verbal statement accompanying their donation, which contained additional information on what triggered their donation, whereas 5203 did not; we refer to them as two subsamples. Table 2 gives an overview of the sample characteristics of the overall sample (N = 8697), and the two subsamples. Within the overall sample, we identified 4574 (52.6%) transactions made by female donors, 2522 (28.9%) by male donors, and 1601 (18.4%) donations are undefined by sex or anonymous donations. We verified donor's sex using a name algorithm (Blevins & Mullen, 2015), based on which we classified the sample as male and female donors. This algorithm uses statistical methods to predict the gender of a name based on patterns found in existing gender-labeled datasets. However, gender-neutral names can cause inaccuracy. This is a methodological limitation. In terms of the currency of the donation, based on the currency zone each donor is located in, more than half of the donations (59.8%) were made in US Dollars, followed by 1040 donations (12.0%) in New Zealand Dollars, 1016 (11.7%) in Euro, and 699 (8.0%) in Pound Sterling (UK), The remaining donations were made in either Australian or Canadian Dollars.

Table 2. Sample Characteristics.

Variables	**Overall sample N=8697**	**Subsample 1 (leaving a comment) N=3494**	**Subsample 2 (leaving no comment) N= 5203**
Transactions made by			
Female	4574 (52.6%)	2020 (57.8%)	2554 (49.1%)
Male	2522 (28.9%)	1036 (29.7%)	1486 (28.6%)
Undefined sex, anonymous	1601 (18.4%)	438 (12.5%)	1163 (22.4%)
Currency zone			
USA (USD)	5196 (59.8%)	1983 (56.8%)	3213 (61.8%)
New Zealand (NZD)	1040 (12.0%)	454 (13.0%)	586 (11.3%)
United Kingdom (GBP)	699 (8.0%)	403 (11.5%)	296 (5.7%)

Europe (Europe)	1016 (11.7%)	313 (9.0%)	703 (13.5%)
Canada (CAD)	250 (2.9%)	125 (3.6%)	125 (2.4%)
Australia (AUSD)	493 (5.7%)	215 (6.2%)	278 (5.3%)
Brazil (BRL)	3 (0.0%)	1 (0.0%)	2 (0.0%)

3.3 Measurement

A complete list of all measures is provided in Appendix B. Given the observable nature of our data, we used observable single items to measure our variables.

3.3.1 Donation

We measured donation behavior according to the donation amount given by an individual displayed on the platform. All donations are converted to USD to ensure comparability. Our overall sample donated a total of USD 307857.29. The descriptive results in Table 3 show that the average donation amount within the sample of donors who left a comment is USD 37.99 (Median USD 25.00). The subsample that left no comment displays a lower average donation amount of USD 33.66 (Median USD 23.80). Because of the non-normal distribution of the error terms of the donation behavior variable, we log-transformed it for some of our analysis.

Table 3. Descriptive results.

	Subgroup left no comment	**Subgroup left comment**	**Social Cause**	**Peer Fundraiser**	**Both (cause + peer fundraiser)**
Source of Inspiration	-	3494 (100%)	335 (9.6%)	2794 (80.0%)	365 (10.4%)
Inspiration Score M (SD)	-	1.78 (.595)	1.48 (.568)	1.78 (.603)	2.05 (.341)
Low	-	1095 (31.3%)	186 (55.5%)	896 (32.1%)	13 (3.6%)
Middle	-	2084 (59.6%)	137 (40.9%)	1625 (58.2%)	322 (88.2%)
High	-	315 (9.0%)	12 (3.6%)	273 (9.8%)	30 (8.2%)
Donation Amount					
M (SD)	USD 33.66 (63.51)	USD 37.99 (46.15)	USD 32.54 (36.04)	USD 37.04 (44.73)	USD 50.22 (60.84)

Median	USD 23.80	USD 25.00	USD 25.00	USD 25.00	USD 29.75
Min – Max	USD 0.77[a]– 1570.00	USD 1.00– 800.00	USD 1.00– 300.00	USD 1.00– 800.00	USD 1.00– 500.00

Note: Abbreviations: M, mean; SD, standard deviation. [a] Although donors had to donate at least 1USD/Euro, the value of 0.77 results from converting the currencies to USD.

3.3.2 Donor inspiration

Distinct from the survey approach applied by Böttger et al. (2017) (see Appendix C), we measured donor inspiration observably based on the written comments accompanying the donors' donations (Zhao & Dale, 2019). Two independent researchers manually analyzed each written statement for what drove the donors to donate. Additionally, we checked the quality of the coding process through an automated process (for details see quality check). We accounted for the (1) source of inspiration and (2) intensity of inspiration in each of these comments (N = 3494).

3.3.3 Source of inspiration

We found three different sources of inspiration in the data, which we coded as 0 = inspired by the cause, 1 = by the peer fundraisers, or 2 = inspired by both. To be able to include the categorical variable in our analysis, we created two binary variables: (1) source peer fundraisers (1 = source fundraisers, 0 = source cause or both), or (2) source both (0 = source cause or source fundraiser, 1 = source both). The possibility that the cause is the source of inspiration is the reference category in our regression model. The descriptive statistics (Table 3) show that out of the 3494 donor comments, only 335 (9.6%) comments refer to the cause (clean water for Africa) as their source of inspiration, 2794 (80.0%) comments mention the fundraisers as source of their inspiration to donate, and 365 (10.4%) attribute their donation to both the cause and fundraisers.

3.3.4 Intensity of inspiration

We operationalized three levels of inspiration intensity: 1 = low, 2 = middle, and 3 = high donor inspiration. For example, a low intensity of inspiration is associated with comments like “you've got this” or “cheering for you.” A middle intensity of inspiration is typical for comments that explicitly use the term “inspiration” with no further explanation. Comments that expound on the inspiration were assessed to have a high level of inspiration intensity. An example comment

is as follows: “Resilience has a name—Rachael Newsham! What a year and what a woman. Thank you for the inspiration to keep lifting that mental ‘bar’”. A list of examples for donor inspiration intensity is provided in Appendix D.

Descriptive results show that with respect to the intensity of donor inspiration, only 315 (9.0%) donor comments show what we coded as high level of inspirational content. Conversely, 2084 (59.6%) of the comments indicate a medium level of inspirational intensity, and 1095 (31.3%) a low level. Noteworthy for our purpose is the distribution of donor inspiration intensity grouped by the inspirational sources (Table 3). Transactions that were inspired by the cause show the lowest average donation ($M = 32.54$, $SD = 36.04$), followed by transactions that were inspired by the fundraisers ($M = 37.04$, $SD = 44.73$). When the comments stated that the transaction was inspired by the cause and the fundraisers, the average donation amount was clearly higher with $M = 50.22$ ($SD = 60.84$).

3.3.5 Quality Check

To ensure the quality of coding, we analyzed the comments with two researchers. To compare the agreement of the coders and account for the quality of analysis in terms of subjective bias, we first calculated the intercoder reliability (ICR). The direct agreement of two coders, presented as percentage of agreement, is 92% for the coding of the inspiration source and 88% for the intensity of donor inspiration, both satisfactory values.

Further, we validated the findings regarding the intensity of donor inspiration by applying an unsupervised sentiment analysis using the Vader Sentiment Library (Borg & Boldt, 2020). This analysis is primarily designed to measure the polarity (positive, negative, or neutral) of a text. Therefore, each of our comments was classified as positive, negative, or neutral. Comparing the result with our hand-coded results, we find a moderate converging rate of 73.23% and a Cohens Kappa value of .384. We argue that, in our case, hand-coding performed better. The algorithm rated comments such as “Thank you” as positive, while comments like “Way to go on raising awareness for this cause. Can't wait to see you knock out all these burpees live” were rated neutral. In terms of the source of inspiration, we are very confident that the comments are clearly attributable and no additional machine coding is needed.

3.3.6 Controls

Besides sex and currency, we include the peer fundraiser's reputation within the community as a control variable. While there are plenty of potential source characteristics in the donation context, we propose the personal reputation of the fundraisers as being particularly important. We based this measure on the professional job rank that the peer fundraiser achieved in their fitness career at Les Mills. We classified global representatives, national trainers, assessors, and presenters as fitness champions (1 = high perceived reputation) and all other individual peer fundraisers as regular fitness instructors (0 = as regular perceived reputation).

4 RESULTS

4.1 Test of hypotheses

To test our hypotheses, we perform the Kruskal–Wallis H test (Table 4), regression analysis (Table 5), and mediation analysis (Table 6).

Table 4. ANOVA results.

Panel A: Mean [SD = standard deviation] for inspiration intensity and donation behavior										
Source			**Inspiration intensity**				**Donation behavior**			
Peer fundraiser			1.78 [0.61] n = 2794				37.04 [44.74] n = 2794			
Cause			1.48 [0.57] n = 335				32.54 [36.04] n = 335			
Both			2.05 [0.34] n = 365				50.22 [60.84] n = 365			
Panel B: Kruskal–Wallis test										
Source	**N**	**Mean rank**	**χ2**	**Df**	**p**	**N**	**Mean rank**	**χ2**	**Df**	**p**
Peer fundraiser	2794	1744.97				2794	1734.21			
Cause	335	1297.94				335	1553.09			
Both	365	2179.48				365	2027.68			
Total	3494		176.50	2	<0.01	3494		41.37	2	<0.01
Panel C: Post-hoc Dunn–Bonferroni test										
Source	**t**	**SE**	**z**	**p**		**t**	**SE**	**z**	**p**	
Cause vs. peer fundraiser	-447.03	50.72	-8.81	<0.001		−181.12	58.12	-3.12	<0.002	
Cause vs. Both	−881.53	66.37	−13.28	<0.001		−474.59	76.10	−6.24	<0.001	
Peer Fund-raiser vs. Both	−434.51	49.52	−8.90	<0.001		−293.47	55.94	−5.25	<0.001	

Note: Abbreviations: SD, standard deviation; SE, standard error.

Table 5. Regression analysis.

Inspiration intensity			**Donation behavior (log)**			
	Model 1	**Model 2**	**Model 3**	**Model 4**	**Model 5**	**Model 6**
Donor inspiration source: social cause (reference category)						
Peer fund-raiser	0.206*** (0.020)	0.195*** (0.020)	0.139*** (0.049)	0.088*** (0.048)	0.092*** (0.047)	
Both (peer fundraiser & cause)	0.318*** (0.027)	0.299*** (0.026)	0.197*** (0.064)	0.124*** (0.063)	0.126*** (0.063)	
Inspiration				0.252*** (0.024)	0.252*** (0.024)	0.195*** (0.010)
Sex		−0.006 n.s. (0.000)			0.017** (0.000)	
Currency NZD		0.088*** (0.018)			-0.128***	
Currency EUR		-0.123*** (0.021)			-0.046** (0.050)	
Currency GBP		-0.008 n.s. (0.020)			-0.117*** (0.045)	
Currency AUSD		0.071*** (0.025)			0.048** (0.059)	
Currency CAD		-0.014 n.s. (0.032)			-0.041* (0.074)	
Perceived Reputation		0.117*** (0.013)			0.043* (0.030)	
Constant	0.323***	0.298	2.960	2.424	2.470	3.010
N	3494	3494	3494	3494	3494	8697
R^2/Adj.-R^2	0.054/0.054	0.091/0.088	0.021/0.020	0.082/0.081	0.112/0.109	0.038/.038
F	100.04	38.623	37.161	103.441	43.920	172.990

*Note: Dependent variable "donation behavior" is log-transformed. "Source cause" is the reference category. "Currency USD" is the reference category for the currency. Regression coefficients are standardized. Standard errors are in parentheses. *p < 0.05. **p < 0.01. ***p < 0.001, n.s. p > 0.05.*

Table 6. Mediation analysis.

Indirect effects **Relation** **Total donation amount**	**ß**	**partially**	**SE**	**LLCI**	**ULCI**
Inspired-by Fundraiser→ Inspired-to→Donation Behavior	0.1071	0.1256	0.0138	0.0804	0.1348
Inspired-by Both→Inspiration→ Donation Behavior	0.2046	0.2400	0.0185	0.1688	0.2424

Note: $p < 0.05$. Dependent variable: Donation amount; Mediator: Inspiration; Independent Variable: Inspired-by source as categorical variable. Reference group: inspired-by cause. p values were derived by bootstrapping with 5000 samples within 95% confidence intervals. Abbreviations: CI, Confidence Interval; LLCI, Lower Limit Confidence Interval; SE, Standard Error; ULCI, Upper Limit Confidence Interval.

4.1.1 Hypothesis 1 is supported by the data

We test our first hypotheses regarding the effect of the different types of inspirational sources (cause, fundraisers, or both) on the donation amount by performing the nonparametric Kruskal–Wallis H test. This test was chosen over the one-way analysis of variance (ANOVA) with planned contrast because of its robustness in dealing with non-normal distributed data (Nwobi & Akanno, 2021) and greatly varying sample group sizes ($n_{fundraisers} = 2794$, $n_{cause} = 335$, and $n_{both} = 365$). Table 4, Panel A shows the means, standard deviations, and the number of observations for the intensity of donor inspiration and the donation amount grouped by the inspirational sources.

Based on the results of the Kruskal–Wallis H test, H1 is supported (Table 4, Panel B). The results show that among the sources of inspiration, there is a statistically significant difference with regard to the donation amount ($\chi 2\ (2) = 41.37$, $p < 0.001$), such as the intensity of donor inspiration ($\chi 2\ (2) = 176.50$, $p < 0.001$).

4.1.2 Hypothesis 2 is supported by the data

In line with Chapman et al. (2019), we hypothesized that peer fundraisers are more inspiring for donation behavior than the social cause in a peer-to-peer context. This hypothesis is confirmed by the Dunn–Bonferroni post hoc test (Table 4, Panel C) and the results of the regression analysis of model 3 in Table 5. Although the Kruskal–Wallis test indicates a significant differ-

ence between the sources of inspiration, we conduct the Dunn–Bonferroni post hoc test to determine pairwise which of the inspirational sources are statistically different in terms of donation behavior. The results indicate that donors who were inspired by the cause gave significantly less compared with those inspired by the fundraisers ($z = -3.12$, $p < 0.01$) or by both ($z = -6.24$, $p < 0.001$). Further, donors who were inspired by the fundraiser gave less compared with donors who were inspired by both the cause and the fundraisers ($z = -5.25$, $p < 0.001$). H2 is further supported by the results of the regression analysis in model 3, which indicate that the source of inspiration being the peer fundraisers has a significant positive effect on the donation amount. This means that being inspired by peer fundraisers instead of the social cause leads to a significant higher donation amount ($ß = 0.139$, $SE = 0.049$, $p < 0.001$). As anticipated, depending on the source of inspiration, different levels of inspiration and donation behavior are triggered (Izogo & Mpinganjira, 2020)

This raises the question on the donor's general willingness to give. The findings indicate that helping a cause is less inspiring to donors than helping the peer fundraiser. Indeed, peer-to-peer fundraising literature has provided empirical evidence that peer donors are driven by relational altruism (Scharf & Smith, 2016), meaning they are motivated by helping a friend but not the cause per se. Further, Meer (2011) indicates that when being requested to donate by a peer, donors are more pressured into donation, and therefore, are more likely to give a higher average donation. Lastly, our findings support the champion effect by Chapman et al. (2019), which says that potential donors are "more influenced by the champion (peer fundraisers) than by the charity" (p. 573), using different study design and measurement tools. We find donors inspired by the peer fundraisers donate significantly more compared with those inspired by the cause. However, we want to highlight that when the source of inspiration is both (the fundraisers and the cause), donors give significantly higher donation amounts compared with those being inspired by only the social cause or fundraiser, showing that a combination of both is the most effective.

4.1.3 Hypothesis 3 is supported by the data

In model 1 of the regression analysis in Table 5, we assess the relationship between the source of inspiration (inspired-by component) and the inspiration intensity (inspired-to component). The results show that inspired-by significantly predicts inspired-to [$F(2, 3492) = 100.04$,

$p < 0.001$]. Thereby, inspired-by accounts for 5% of the variance in inspired-to, which is comparably low. We expect this effect to be larger when replicating the measurement with survey data.

4.1.4 Hypothesis 4 is supported by the data

We applied a mediation analysis when the independent variable is multicategorical (Hayes & Preacher, 2014) using the PROCESS macro by Hayes (2018) and controlling for donor and peer fundraiser characteristics. This type of mediation analysis displays relative indirect and direct effects. Therefore, the effects are interpreted relative to one of the alternative categories of the independent variable. The social cause functions as the reference group. The results of the bootstrapping procedure in Table 6 revealed a positive significant relative indirect effect for the source being the peer fundraisers (ß = 0.1071, SE = 0.0138) and being both the cause and the peer fundraisers (ß = 0.2046, SE = 0.0185). Applying an exponential retransformation of the coefficients, we find (relative to the reference group) those being inspired by the fundraisers donate 1.11 USD more and those being inspired by both donate 1.22 USD more as a result of the positive effect of being inspired-by a peer fundraiser or both on inspiration, which in turn increased the donation behavior. We also confirm the direct effect of inspired-by, indicating the likelihood of other influencing factors that need to be taken into consideration. Most causal effects operate through more than one mediator (Hayes & Rockwood, 2017).

4.1.5 Hypothesis 5 is supported by the data

The results in Table 5, model 5, show a positive significant effect of inspiration on donation behavior, meaning the higher the inspiration of a donor, the higher the observable amount donated (ß = 0.252, SE = 0.02, $p < 0.001$). Moreover, we find inspiration to be the strongest predictor in model 5. In terms of predictive validity, the results highlight that the inclusion of inspiration in model 4 improved the prediction of the donation amount model (change 0.061) significantly. To validate the role of inspiration in our context, we additionally accounted for the influence of inspiration intensity on donation behavior in the overall sample (N = 8697; see model 6). All donors who left no comment were coded with 0 for inspiration intensity. We find the influence of inspiration intensity on the total donation amount given by a peer donor to still be positive and significant.

In this aspect, our study highlights what Nordstrom et al. (2022) and Liang et al. (2016) have previously suggested, namely that inspiration should be paid attention to in a nonprofit context. We have provided empirical evidence on the effect of inspiration on donation behavior. Considering this result in the context of the mechanisms driving charitable giving proposed by Bekkers and Wiepking (2011), we argue that inspiration can be understood as a facet of solicitation. It is likely that the act of solicitation for donation alone inspires donors, thereby motivating donors to pursue donation behavior. Depending on who is asking and what the solicitation looks like, this effect can be amplified. However, the R^2 value across all models is considerably low. Therefore, we believe that further research is needed for establishing the role played by donor inspiration. It is very likely that inspiration serves as a mechanism that primarily elicits donation behavior, whereas the magnitude of the donation may be influenced by various additional factors, such as income (Konrath & Handy, 2018; Wiepking & Handy, 2015). Unfortunately, we lack a comparison with nondonors who were solicited to donate to the WorkoutforWater campaign but decided not to donate, and therefore were not inspired.

4.1.6 Controls

The regression models 2 and 5 in Table 5 included our controls and provided three noteworthy findings. First, women gave significantly higher donation amounts than men but were not significantly more inspired. Second, donors who donated in USD gave significantly higher donation amounts compared with donors donating in NZD, Euros, GPB, AUSD, and CAD. Third, regarding the peer fundraisers control variable, the models suggest that when asked to donate by a peer fundraiser perceived as highly reputed, the donors were significantly more inspired and gave significantly higher donation amounts.

5 THEORETICAL IMPLICATIONS

As a point of departure, this study conceptualizes donor inspiration as an understudied concept in nonprofit literature in a peer-to-peer giving setting. Although not the first to acknowledge the influence of inspiration in a nonprofit context (Liang et al., 2016; Nordstrom et al., 2022), by combining existing knowledge on the inspiration construct and the motivational theory of role modeling, our study contributes to the introduction of donor inspiration in nonprofit literature in three ways.

First, we contribute to nonprofit literature by the development of an original donor inspiration definition and framework, thereby augmenting the literature on motivational processes and solicitation. The framework introduces relevant components of donor inspiration, namely the source of inspiration and the intensity of donor inspiration, and illustrates their positive relationship with donation behavior. Thereby, we acknowledge and adopt the core logic of Thrash, Elliot, et al. (2010); Thrash, Maruskin, et al. (2010). However, we regard our conceptualization as an initial conceptual step in donor inspiration literature. Future research could use this base to develop a more comprehensive framework that includes antecedents and further psychological consequences (emotion, donor intention, and donor identification) as well as conceptualize more behavioral outcomes (Beldad et al., 2014; Boenigk & Helmig, 2013; Sargeant, 2001). Nevertheless, we hope that our research helps broaden the current knowledge base on inspiration in a nonprofit context.

Second, we contribute to the literature by providing empirical evidence on the relationship between donor inspiration and donor behavior, by applying an observable data approach. This is unique because previous empirical research was qualitative in nature (Nordstrom et al., 2022) or survey-based (Izogo & Mpinganjira, 2020; Liang et al., 2016). Therefore, we hope that presenting our approach of web-scraped data from a real-life campaign inspires nonprofit researchers to adopt and use similar methods in their own nonprofit research area.

Third, our results contribute to the literature by highlighting the importance of two additional learnings, previously not considered in peer-to-peer giving literature. First, our study emphasizes that peer donors show donation behavior because they find the peer fundraiser inspiring. Therefore, we suggest inspiration as a new driving factor of peer giving. Second, we show that the collaboration of nonprofit and business organizations offers a suitable environment to foster the participation of peer fundraisers and trigger peer donor's donation behavior. Since our framework is context specific, research in other contexts, such as crowdfunding (van Teunenbroek et al., 2023), is required to provide an understanding of peer-to-peer interactions in more depth.

6 LIMITATIONS AND FUTURE RESEARCH

While working with real campaign data, as opposed to traditional survey data, is an innovative approach in nonprofit research that allows for a large sample and behavioral data obtained in a real-world setting, this approach comes with several limitations. First, we measured donor inspiration based on objective data instead of using an established inspiration scale (Böttger et

al., 2017; Thrash & Elliot, 2003). Therefore, construct validity can be an issue as we cannot assess the quality of our measurement; instead, we can only report intercoder reliability for our measurement of donor inspiration statements. Further, we were not able to measure a donation intention construct, which we regard as important for the distinction of the inspired-to component. From a methodological perspective, we invite future research to replicate our study using existing and established inspiration scales. This could account for similarities and differences between the inspired-to component and other psychological construct underlying donation decisions. Additionally, such an approach would be practical for assessing the robustness of our findings, especially regarding the mediation effect.

Second, reversed causality might be a problem in our approach involving observable data (Leszczensky & Wolbring, 2022). While we conceptualize the effect from donor inspiration on donation behavior, it is conceivable that the effect may be the other way around. It is possible that donors who have donated higher amount of money want to justify their donation by making an inspirational statement along with their donation after deciding on how much to donate. To validate our findings and address the issue of reversed causality, we encourage future research to use a randomized experimental approach (Rosenbaum, 2017). Further, from a statistical point of view, Leszczensky and Wolbring (2022) suggest using multilevel structural equation modeling.

Third, the concept of donor inspiration was tested in a specific peer-to-peer context, and therefore its generalizability in nonprofit literature is not confirmed. In other contexts, such as volunteering in disaster management, inspiration may play a different role. We invite future research to address the impact of donor inspiration on behavioral consequences, in other nonprofit settings.

7 PRACTICAL IMPLICATION

The main implication of this study is that nonprofit managers should focus on inspiration as a core element in developing new donor recruitment strategies. In reflecting our finding that donor inspiration positively affects donation behavior, managers should answer three strategic questions.

First, who or what is the inspirational source in the peer-to-peer campaign? Our study implies that the peer fundraisers are the main source of inspiration in peer-to-peer campaigns. More precisely, peer fundraisers who have a certain reputation within the peer community, and are

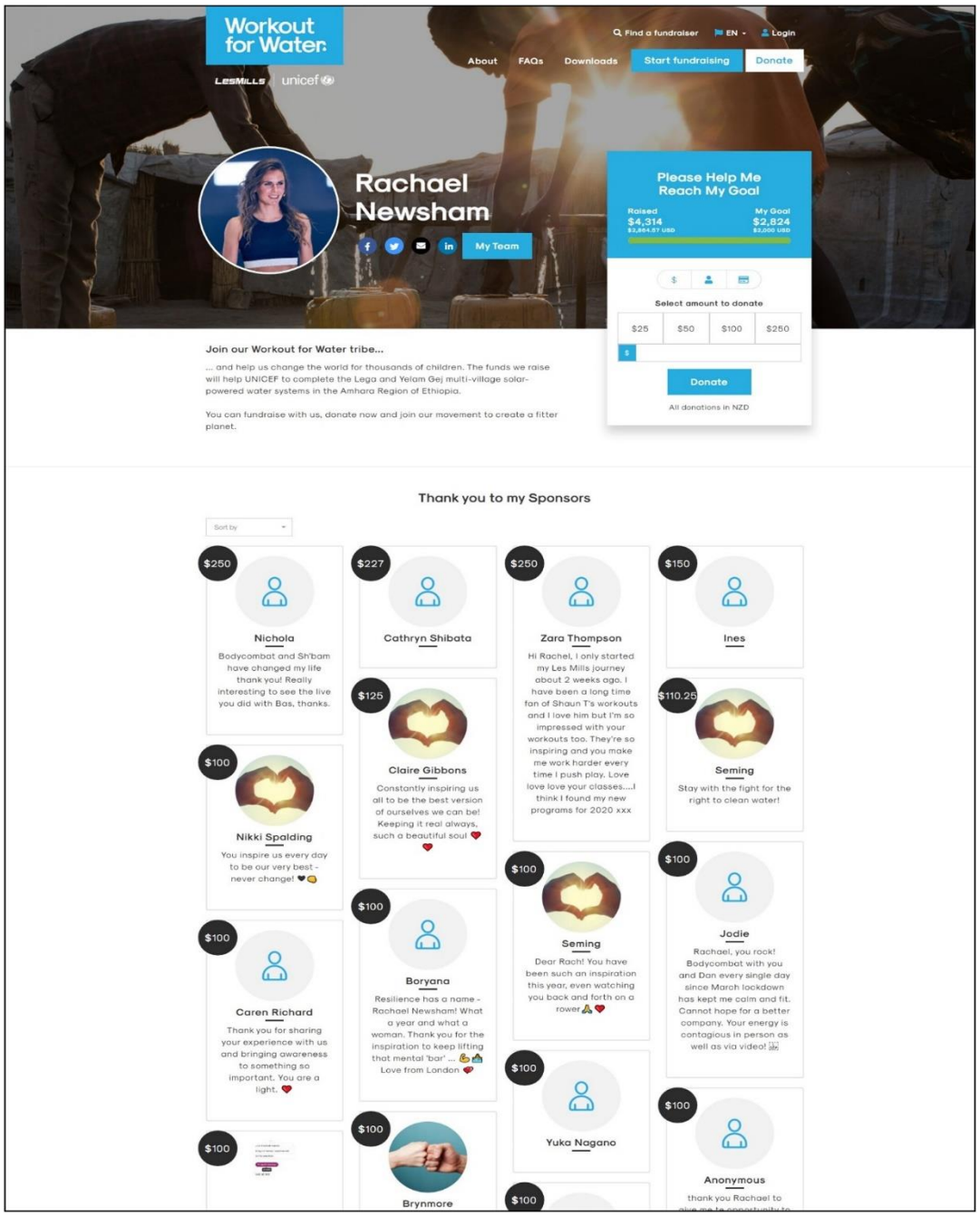
therefore, most likely to be role models, inspire donors to give more. Accordingly, it is advisable to identify the most inspirational source and get them engaged in the campaign. In this regard, establishing influencer marketing is another option to reach new donors.

Second, in which context does inspiration trigger donation behavior? A second implication of our study is that peer-to-peer campaigns offer nonprofit managers a good opportunity to reach new donor groups by using peer fundraisers as inspirational intermediates. We recommend that managers should implement more such peer-to-peer campaigns. More precisely, using a collaboration like WorkoutforWater reaches more potential new donors than family- or friend-based campaigns; however, the utility of these types is limited. Therefore, we also recommend implementing family- and friend-based events as they can function as inspirational role models complementarily.

Third, over which channels should inspirational content be communicated? We suggest promoting peer-to-peer campaigns on social media, as research has confirmed that this facilitates the promotion of inspirational content (Castillo et al., 2014; Izogo & Mpinganjira, 2020). Furthermore, social media allows the inspired donor to become a source of inspiration for their own social network as well, by sharing details of the supported cause or their donation. In terms of the type of inspirational content, we suggest that peer fundraisers should be highlighted alongside the social cause in all communication, in order to achieve more donations.

APPENDIX

Appendix A. Landing Page WorkoutforWater Campaign.

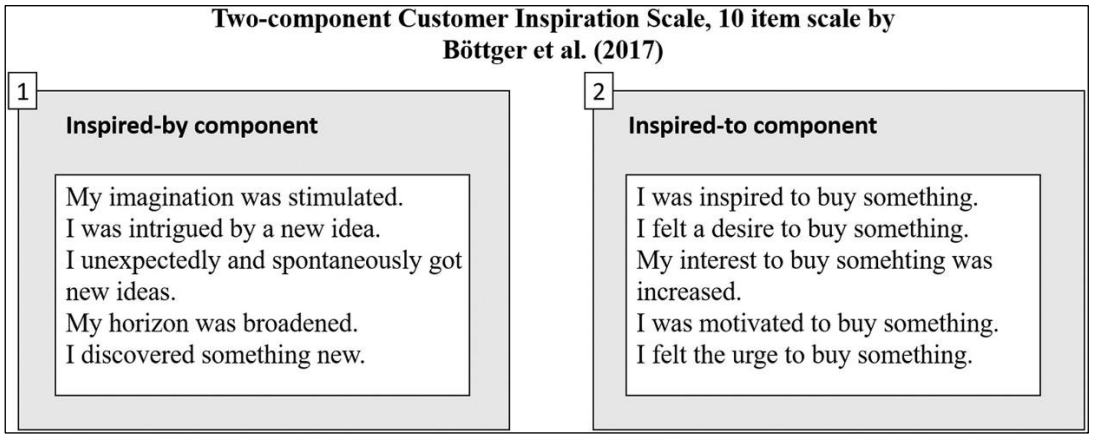


(Source: https://www.workoutforwater.org/fundraisers/rachaelnewsham).

Appendix B. Measurement

Dimension	Variable	Measurement	Operationalization
Donor inspiration (inspired-by)	Source of inspiration	0 = cause	Categorical variable, coded as 0 if the cause is the source of inspiration, coded as 1 if the peer fundraiser is the source of inspiration, and 2 if both are mentioned as source of inspiration.
		1 = peer fundraiser	
		2 = both	
Donor inspiration (inspired-to)	Inspiration intensity	1 = low	For each comment accompanying a donation, we assessed the intensity level of expressed inspiration on a scale from 1 = low to 3 = high based on a qualitative content analysis.
		2 = middle	
		3 = high	
Behavioral consequence	Donation	Continuous	Individual donation amount per transaction made on the campaign's webpage. For some analysis we log-transformed the variable.
Controls	Sex	1 = female	Binary variable, coded as 1 if the gendered name algorithm identified the donor as female, and coded as 2 if the algorithm identified the person as male.
		2 = male	
	Currency zone	1 = USD; 2 = NZD; 3 = EURO; 4 = Pound Sterling; 5 = CAD; 6 = AUSD	Categorical variable, representing the currency the donations were displayed on the donation webpages.
	Peer fundraiser reputation	0 = basic trainer; 1 = highly reputed trainer; Champion	Accounting for the peer fundraisers' reputation by their job position achieved within their fitness career. Binary variable, coded as 1 if the peer fundraiser is a global representatives, national trainers, assessors, and presenters (“champions”).

Appendix C. 10 Item Customer Inspiration Scale of Böttger et al. (2017)



Appendix D. Example Donor Inspiration Coding

Source	Intensity	Example
Peer Fund-raiser	1 = low	"Well done guys, great idea."
	2 = middle	"Best of regards to a great inspirational coach"
	3 = high	"Constantly inspiring us all to be the best version of ourselves we can be!" "Resilience has a name—Rachael Newsham! What a year and what a woman. Thank you for the inspiration to keep lifting that mental 'bar'"
Social Cause	1 = low	"Sounds like a good project! Good luck!"
	2 = middle	"Wow—what an impressive cause! Good luck x"
	3 = high	"What an inspiring and great cause. It made me think how easy my life is. Cold water dispensed from the refrigerator door!"
Both	1 = low	"Good Luck Tamsey. This is a great cause and thanks for al-lowing me to be a part of it!"
	2 = middle	"This is a cause that really makes a difference. It's cool that we can use the thing we love to help people live better lives"
	3 = high	"Happy to support an inspirational person for a great cause. God bless x"

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Kapitel 4: Transforming peer donors into organizational donors: Understanding and managing peer donor transformation

[Hesse, L., in: Nonprofit Management and Leadership (akzeptiert). VHB-JOURQUAL 4: B; Impact Faktor: 2.8. Eigenleistung: 100 %]

Transforming peer donors into organizational donors: Understanding and managing peer donor transformation

Laura Hesse

Abstract

Peer-to-peer fundraising has emerged as a popular funding approach for nonprofit organizations, generating fast revenue and a promising opportunity for donor base expansion by transforming peer donors into organizational donors following their peer donation. This study uses survey data from 706 participants to examine the transformation likelihood of peer donors and its determining factors. Additionally, it evaluates the capacity of machine learning to predict which peer donors are most likely to transform. The results reveal that, among first-time peer donors who lack prior affiliation with the nonprofit organization, the transformation likelihood is 14.1%, indicating a transformation rate of approximately one in seven peer donors. Regarding the determining factors, post-donation communication with peer donors after their initial donation increased the odds of transformation threefold, while established nonprofit-related factors, such as trust in the organization, exhibit no influence. Moreover, applying the random forest approach allowed for the prediction of the transformation with an accuracy of 77%. This study assists in identifying the donors most likely to transform, enabling fundraising managers to allocate efforts effectively and maximize fundraising success.

Keywords

peer-to-peer fundraising, transformation, machine learning, random forest, donor retention

INTRODUCTION

In response to the changing fundraising landscape, nonprofit organizations have adjusted their fundraising strategies by involving private individuals, likely existing donors, in their fundraising (Breeze et al, 2023; Priante et al., 2021; van Teunenbroek et al., 2023; Xiao & Yue, 2021). This has led to a heightened interest in peer-to-peer fundraising as a valuable fundraising asset (Chapman et al., 2019; Hesse & Boenigk, 2023). Peer-to-peer fundraising involves individuals raising donations for an organization through their social networks. This approach is gaining traction because of its potential to expand nonprofits' reach into peer fundraisers' social networks with minimal marketing effort (Castillo et al., 2014; Saxton & Wang, 2014). This provides access to a large pool of first-time donors at low costs which might have been inaccessible otherwise. Likewise, peer-to-peer fundraising can be used to strengthen the relationship with existing donors (Chapman et al., 2019).

Academic research has mostly focused on identifying success factors in peer-to-peer fundraising campaigns (Chapman et al., 2019; Priante et al., 2021), and associated peer-to-peer fundraising with short-term benefits. However, research emphasizes the potential long-term benefits of peer fundraising for nonprofit organizations, which remain uncertain and understudied (Hesse & Boenigk, 2023). Little is known about the peer donors' willingness to support the organization after their participation in the peer campaign when the peer fundraiser as an intermediary is gone. The study discusses the "transformation likelihood," which is the probability of peer donors directly contributing to the nonprofit organization beyond their initial peer donation. An argument supporting the transformation likelihood of peer donors is that through their peer donation, they become more acquainted with the cause and nonprofit mission. Additionally, the implicit endorsement of the nonprofit organization by the peer fundraiser may foster a sense of trust among peer donors in the organization. However, one can argue that their transformation is unlikely because first, donors may encounter difficulty recalling the name of the nonprofit organization due to its secondary role in the fundraising process (Chapman et al., 2019). Second, peer donors' participation in the donation process is frequently attributed to their pre-existing relationship with the peer fundraiser (Hesse & Boenigk, 2023; Meer, 2011). Consequently, they may initially lack a direct relationship with the nonprofit organization, which literature identifies as important for donor retention (Barra et al., 2017; Naskrent & Siebelt, 2011).

This leaves fundraising managers with uncertainty when having to decide on how to manage peer donors after donation and are faced with three key questions: How likely are donors to

transform to organizational donors after a peer donation? What fosters the transformation likelihood? And how to identify the donors most likely to transform? Therefore, the study has two research aims.

The first research aim of the study is to examine the transformation likelihood and its determining factors conceptually and empirically. While the literature on peer-to-peer fundraising is limited in this regard, this study draws upon a substantial body of relationship fundraising research (e.g., Beldad et al., 2014, 2015; Khodakarami et al., 2015; Merchant & Sargeant, 2010; Naskrent & Siebelt, 2011; Sargeant, 2001; Xiao & Yue, 2021). Particularly it considers studies that have conceptualized and validated several factors influencing the transformation intention of one-time organizational donors into repeated donors. Repeat donors are defined as individuals who, after making an initial donation to an organization, proceed to make subsequent donations to the same organization (Beldad et al., 2014). Key findings, such as those by Beldad et al. (2014), especially underscore the critical role of positive donor experiences in shaping the intention to donate again. These insights suggest that negative experiences or perceptions of inefficacy of the peer donation among peer donors may impede the transformation process. Furthermore, Beldad et al. (2015) and Naskrent and Siebelt (2011) propose that the perception of a nonprofit organization, especially trust and mission affinity, influences repeat donations. Though found to be less crucial in the context of peer donations (Chapman et al., 2019), these factors may become more significant when the donation goes directly towards the organization without the peer fundraiser as an intermediary. Additionally, research on post-donation communication by nonprofit organizations present mixed findings (Khodakarami et al., 2015; Merchant, & Sargeant, 2010; Schweidel & Knox, 2013). While solicitation stands as the primary driver of donations (Bekkers & Wiepking, 2011), in a peer context, it is possible that peer donors may feel uncomfortable, when contacted by a nonprofit organization which they have not previously directly donated to. Finally, donor characteristics are recognized as pivotal for donation likelihood in broader research (Wiepking & Bekkers, 2012), and are therefore included. This study postulates that these factors found to influence the repeated donation likelihood, may also explain the transformation likelihood of peer donors to organizational donors and thus conceptualizes and empirically evaluates a set of relevant factors most prevalent and adaptable.

In addition to understanding the transformation likelihood from a theoretical standpoint, it is important to evaluate how to use this knowledge to identify the peer donors most likely to transform in practice. Recently, an essential topic in nonprofit management research has evolved to explore the potential of advanced methodologies, such as machine learning, to accurately predict donor behavior. The second aim of the study is to examine if machine learning

could accurately predict transformation likelihood at the donor level. Machine learning is popular due to its capacity to detect complex patterns in data, providing more accurate predictions than traditional methods. Research in fields such as customer relationship management (Rahman & Kumar, 2020; He et al., 2020) and operational business (DeCaigny et al., 2018; Xu & Payne, 2018) supports this. In nonprofit management research, machine learning has been used to forecast crowdfunding (Althoff & Leskovec, 2015; Zaho et al., 2019) or blood donor behavior (Cloutier et al., 2021; Salzar-Concha & Ramírez-Correa, 2021; Shehu et al., 2015). Applying machine learning to peer fundraising, this study expands its application to a new context and likewise allows nonprofit organizations to accurately identify potential donors to acquire and retain (Shang et al., 2019; Xiao & Yue, 2021).

This study makes three important contributions. First, it adds to the peer-to-peer fundraising literature by being one of the pioneering studies to provide conceptual and empirical knowledge regarding the post-peer donation stage. Second, this study broadens donor retention research to a new fundraising context, assessing the relevance of existing findings in a changing landscape. Previous research mainly focused on nonprofit organization-donor relationships, but this study acknowledges the increasing trend of peer individuals fundraising for an organization. This is essential for understanding donor management in the peer-to-peer fundraising environment. Third, this study predicts donor behavior by introducing a random forest approach, to handle complex relationships and provide robust predictions (Breiman, 2001), in peer fundraising management. With a 77% accuracy, the classifier demonstrates its suitability for predicting donor transformation in the peer-to-peer fundraising context, suggesting its potential for wider application in diverse fundraising contexts and its innovative contribution to the field of donor management The practical contribution lies within the guideline it provides nonprofit fundraising managers to identify peer donors likely to transform on an individual level, enabling effective resource allocation and improved fundraising outcomes for nonprofits.

CONCEPTUAL FRAMEWORK AND HYPOTHESIS DEVELOPMENT

Overview of framework and definition of key constructs

Figure 1 is a visual representation of the conceptual framework for understanding peer donor transformation behavior. It illustrates the potential transformation of peer donors into organizational donors, highlighting the factors that influence this transformation. The framework's rationale begins with a donor's financial contribution to a peer fundraising campaign, which is considered the initial condition for the potential transformation behavior of peer donors.

Transformation behavior. Within this study's scope, transformation behavior is the outcome under study and defined as the peer donor's decision to financially support the nonprofit organization associated with the peer campaign following their initial contribution. Transformation, in a broader context, represents a notable form of change, encompassing shifts in beliefs, attitudes, values, or behaviors (Robledo, 2024). Drawing upon transformational learning theory (Mezirow, 1991), these shifts are triggered by significant life events and are shaped by new experiences. The framework in Figure 1 suggests that the peer donor's financial contribution to the peer campaign serves as a trigger for transformational behavior, as it introduces new experiences and raises awareness of the nonprofit organization. While traditional perspectives on transformation (Roboledo, 2024) connect it with personal development in terms of beliefs and attitudes, this study adopts a more managerial viewpoint. It emphasizes concrete donation behaviors as the primary manifestation of transformation, with the intentionality of transformation behavior being central, aligning with previous conceptualizations of transformation in the fundraising context (Beldad et al., 2014).

Peer donor types. In this study, peer donors are defined as individuals who engage in financial support for a nonprofit organization following solicitation from their peers within a peer-to-peer fundraising campaign. In fundraising literature, studies have conceptually distinguished between two types of donors undergoing transformation: the transformation of non-donors into first-time organizational donors (Helms-McCarty et al., 2016), and the transformation of organizational donors into repeat donors (Barra et al., 2018; Beldad et al., 2014; Khodakarami et al., 2015). Similarly, it is conceptually important to differentiate between two categories of peer donors: (1) first-time peer donors, who are introduced to the nonprofit organization through peer fundraisers who had not donated to the affiliated nonprofit organization, and (2) prior-organizational donors who have contributed to the same nonprofit organization before their peer donation.

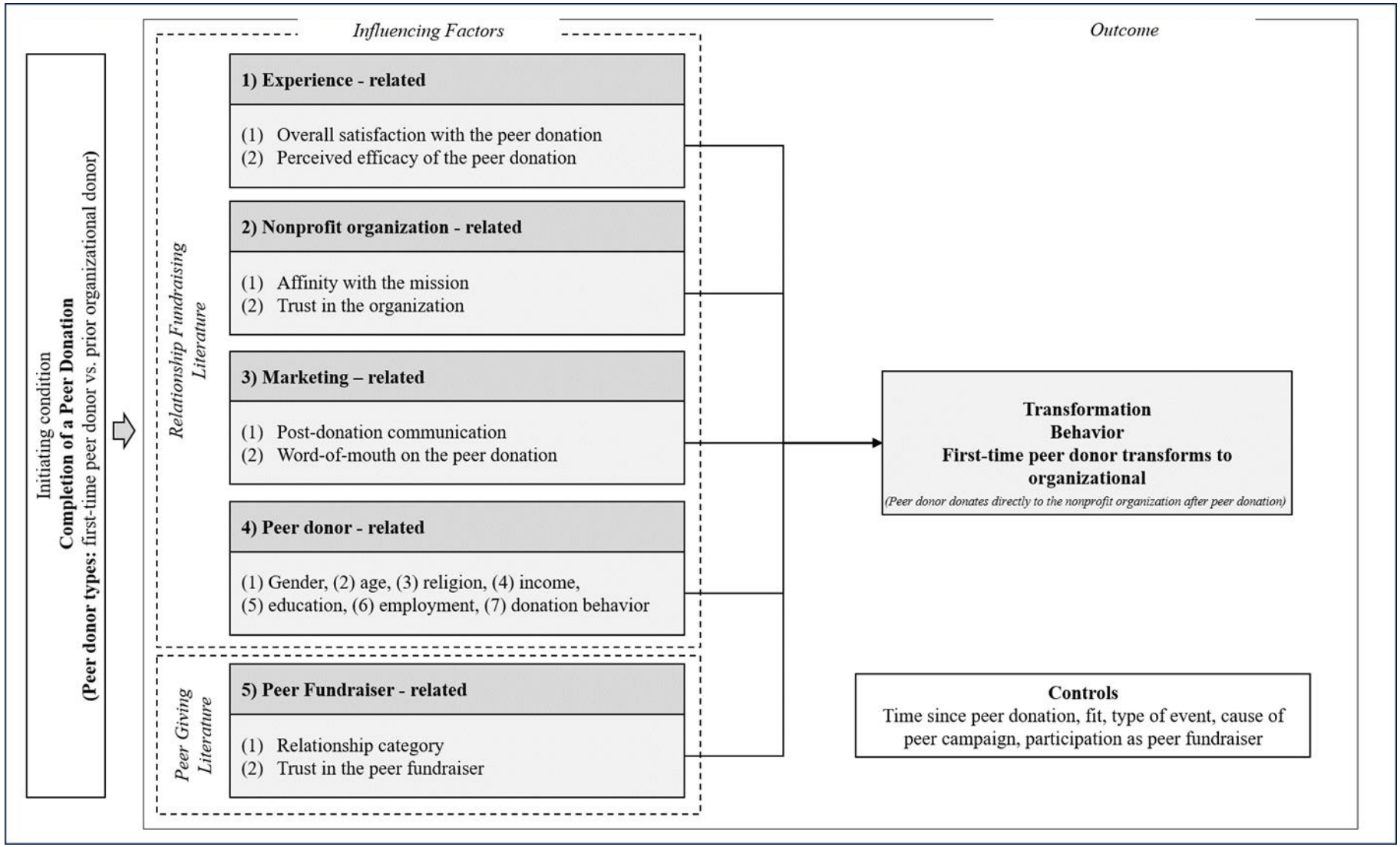


Figure 1. Conceptual Framework of Peer to Organizational Donor Transformation.

Although both types of peer donors can transform based on their experiences with the peer donation - transforming from a first-time peer donor to a first-time organizational donor or from a prior-organizational donor to a repeat organizational donor - it is crucial to acknowledge potential differences in their initial conditions. First-time donors, agree to peer-to-peer fundraising because of the relationship with the peer fundraiser (Chapman et al., 2019; Hesse & Boenigk, 2023; Scharf & Smith, 2016) rather than the nonprofit organization, whereas the reason for prior organizational donors can be both. Additionally, the experiences of first-time donors in peer-to-peer fundraising are predominantly shaped by interactions with the peer fundraiser, whereas prior-organizational donors may have several touchpoints. While both types of peer donors will be examined in this study, the primary conceptual focus will be on the likelihood of transformation from first-time peer donors to first-time organizational donors as the transformation behavior can be attributed to the peer fundraising campaign.

Influential factors. Drawing from fundraising relationship management literature, with a focus on transforming one-time donors to repeat donors (e.g., Beldad et al., 2015; Bennett & Ali-Choudhury, 2009; Xiao & Yue, 2021), and incorporating perspectives from peer fundraising literature to acknowledge contextual nuances (e.g., Hesse & Boenigk, 2023; Scharf & Smith, 2016; Priante et al., 2021), the study compiles a comprehensive list of relevant influential factors. By merging these literature streams, the conceptualization acknowledges different facets of the nonprofit-peer donor and peer fundraiser-peer donor relationship. Emphasizing factors identified in previous conceptualizations (Beldad et al., 2014; Beldad et al., 2015) as significant contributors to the transformation process, it delineates five distinct groups (Figure 1): (1) experience-related factors (2) nonprofit-related factors, (3) marketing-related factors, (4) peer donor-related factors, and (5) peer fundraiser-related factors. Their inclusion was guided by logical relevance, adaptability, and prevalence in existing literature. However, the framework does not claim to be comprehensive but rather exploratory in nature.

HYPOTHESES DEVELOPMENT

Experience-related factors

Extensive research underscores the pivotal role of positive initial experiences with nonprofit organizations in fostering transformation to repeat donors (Bennett & Ali-Choudhury, 2009; Naskrent & Sibelt, 2011). However, given the inherent nature of peer-to-peer donation processes, where direct interaction during the campaign with the nonprofit is often limited, donors are more likely to associate their donation experiences with the peer fundraising experience rather than the nonprofit. The framework conceptualizes two experience-related factors, which have proven to be significant in various donor retention contexts (Beldad et al., 2014; Boenigk & Helmig, 2013), and are expected to impact the likelihood of transformation: (1) overall satisfaction with and (2) perceived efficacy of the peer donation.

Overall satisfaction with the peer donation process. Numerous studies have emphasized the importance of donors' overall satisfaction with donor loyalty and subsequent charitable behaviors (Helmig & Boenigk, 2013; Naskrent & Siebelt, 2011; Sargeant & Shang, 2017; Sargeant, 2001; Shang et al., 2019). Sargeant (2001) reveals that highly satisfied donors are almost twice as likely to donate the following year as those with moderate satisfaction. Similarly, Helmig and Boenigk (2013) find satisfaction to be a significant factor in retaining loyal donors in the context of money and blood donation. Recently, Shang et al. (2019) confirmed this link using a large dataset with data from over 17,000 donors, explaining that the influence of satisfaction on donation behavior is because individuals actively seek experiences similar to their past pleasant encounters, expecting similar level of satisfaction. In peer-to-peer fundraising, first-time peer donors form their satisfaction based on the peer donation process. Therefore, peer donors consider transforming into organizational donors only if they are satisfied with their peer donation process. Thus,

H1a: *The overall satisfaction with the peer donation process is positively related to the likelihood that a first-time peer donor transforms into an organizational donor by making a subsequent donation.*

Perceived efficacy of peer donation. Perceived donation efficacy is the donors' perception of their donation's effect on beneficiaries (Bekkers & Wiepking, 2011a). Empirical proof shows higher perceived efficacy drives first-time and continuing donations (Beldad et al., 2015; Caroll & Kachersky, 2019). Contrastingly, Berman et al. (2018) conducted multiple experiments and

found that people donate to charities based on personal preference, disregarding effectiveness ratings even when provided. Furthermore, Chapman et al. (2019) showed that effectiveness signals had little effect on the success of peer fundraisers. While this seems reasonable for the donation decision in the peer campaign, it is likely that peer donors will not decide to donate to affiliated nonprofit organizations if they perceive their donation as insufficient. Therefore, the framework proposes that the transformation is likely to hinge on how donors perceive their peer donation's efficacy. Positive emotions from believing one's donation makes a difference to beneficiaries might motivate transformation after the initial donation. Thus,

H1b: *The perceived efficacy of the peer donation is related to the likelihood that a first-time peer donor transforms into an organizational donor by making a subsequent donation.*

Nonprofit organization-related factors

While the literature on peer-to-peer fundraising suggests that factors related to nonprofit organizations may not be significant for peer donations (Chapman et al., 2019; Hesse & Boenigk, 2023), it is plausible that these factors will become relevant in the transformation decision once peer fundraisers, acting as intermediaries, are no longer involved. Previous conceptualizations of traditional relationship fundraising underscore the influence of various nonprofit-related factors on transformation behavior. This study considers two distinct forms of nonprofit-related factors as especially crucial in shaping the likelihood of transformation: (1) affinity with the mission, and (2) trust in the organization. Additionally, fundraising literature has identified various other nonprofit-related factors, such as identification with the organization (Boenigk & Helmig, 2013) or reputation (Becker et al., 2020). These additional nonprofit-related factors were not initially considered at this stage of the study but should be considered in future studies.

Affinity with the mission. Beldad et al. (2014, 2015) find that affinity with a charity's mission is a key factor in repeat donations. Affinity is a strong sense of connection, similarity, or identification with a nonprofit's purpose, and therefore based feelings about the cause or beneficiary. In the context of peer-to-peer fundraising, the connection to the peer fundraiser is primary, and affinity for the cause is secondary (Hesse & Boenigk, 2023). However, in terms of transformation likelihood, when the peer fundraiser is not an intermediary, first-time peer donors will possibly consider transforming only if their interests align with the cause.

H2a: *The affinity with the mission is related to the likelihood that a first-time peer donor transforms into an organizational donor by making a subsequent donation.*

Trust in the organization. Trust is a main driver of charitable behavior (Becker et al., 2020; Chapman et al., 2021). Naskrent and Siebelt (2011) and Shang et al. (2019) highlight trust's crucial role in repeat donation intentions and behavior. Barra et al. (2018) show that trust affects initial donations and promotes loyalty. However, in a systematic literature review, spanning from 1988 to 2020, Chapman et al. (2021) state, "If donors do not care about charity outcomes, they do not need to trust organizations to deliver effective aid." (p.1275). Although charity outcomes may play a secondary role in peer donations (Hesse & Boenigk, 2023), trust levels could still influence the likelihood of transformation because it is separate from the peer fundraiser.

H2b: *The trust in the organization is related to the likelihood that a first-time peer donor transforms into an organizational donor by making a subsequent donation.*

Marketing-related factors

Extensive literature has evaluated marketing communication strategies of nonprofit organizations and their influence on repeated donation decisions (Khodakarami et al., 2015; Merchant, & Sargeant, 2010; Schweidel & Knox, 2013). This is related to the frequency of targeting (Bennett, 2009) and message content (Fjarado et al., 2018; Khodakarami et al., 2015; Merchant, & Sargeant, 2010; Schweidel & Knox, 2013; Sepehri et al., 2021). While these studies provide a solid foundation for examining peer transformation behavior, they lack context-specific details regarding peer-to-peer fundraising. This study examines marketing-related factors from two distinct perspectives: (1) the post-donation communication undertaken by a nonprofit organization following a peer donation and (2) word-of-mouth (WOM) on the peer donation carried out by the peer donor following their peer donation.

Post-donation communication. Research highlights the importance of solicitation for donation behavior (Bekkers & Wiepking, 2011a; Sepehri et al., 2021). Nonprofit organizations decide whether to contact peer donors after a peer-to-peer campaign. Two scenarios may occur. Peer donors may feel uncomfortable when contacted by a nonprofit, or they may feel appreciated and are more likely to become organizational donors. Fundraising researchers have extensively explored the use of post-donation communication for donor retention (Khodakarami et al., 2015; Merchant et al., 2010; Schweidel & Knox, 2013) with mixed results. Sargeant (2001) argues that not engaging donors and not prompting them for a second gift increases the chance of them ceasing to donate. Merchant et al. (2010) show that acknowledgment boosts positive emotions and its absence can cause negative feelings. Althoff and Leskovec (2015) indicate

that positive interactions like timely recognition and communication about donation impact increase donor retention in online crowdfunding. Bennett & Ali-Choudhury (2009) find that too much charity information affects the second-donation decision negatively.

H3a: *Post-donation communication is related to the likelihood that a first-time peer donor transforms into an organizational donor by making a subsequent donation.*

Word-of-Mouth (WOM). Sundermann (2018) highlights WOM in donor marketing. It refers to informal communication and recommendations about peer donations. Involvement from donors shows a strong commitment to the cause, encouraging continued support. WOM can create a positive feedback loop in which increased sharing increases donor confidence, resulting in continued support. Empirical evidence is lacking, but this perspective merits further research.

H3b: *A positive WOM is positively related to the likelihood that a first-time peer donor transforms into an organizational donor by making a subsequent donation.*

Peer-related factors

Research has consistently shown that certain donor characteristics, like increasing age, income, gender, and religiosity influence personal donation behavior (Bekkers & Wiepking, 2011b). Donors tend to be female, wealthy, educated, and older (Wiepking & Bekkers, 2012). Little empirical evidence exists on how peer donor characteristics influence giving behavior due to the limited number and observable nature of studies (Smith et al., 2015; Chapman et al., 2019). However, Hesse and Boenigk (2023) used a gendered name algorithm on donor data from a large-scale peer-to-peer fundraising campaign, showing that women donate more than men. Peer-to-peer fundraising, mainly through online platforms, may draw different donor demographics than traditional fundraising, which usually has older donors. This study looked at seven donor characteristics: sex, age, education, religion, income, employment status, and donation behavior.

H4: *Peer donor-related characteristics are related to the likelihood that a first-time peer donor transforms into an organizational donor by making a subsequent donation.*

Peer fundraiser -related factors

Transformation likelihood is influenced by the nature of the relationship between the peer donor and peer fundraiser. Observable and survey-based research on peer giving highlight that the primary motivation for peer donors to donate is their connection to peer fundraisers (Payne et al., 2014; Chapman et al., 2019; Hesse & Boenigk, 2022). While Chapman et al. (2019) conclude, based on information from 1,647 peer fundraisers, that the fundraisers themselves are the most important component of the campaigns' success, Hesse and Boenigk (2023) recently demonstrated, based on data from 8,697 peer donors, that peer fundraisers significantly influence their donation behavior, irrespective of the cause, serving as a source of inspiration. This study conceptualizes two relational factors: (1) the relationship category, (2) and trust in peer fundraisers. While the factor relationship category is selected based on suggestions from previous literature to influence peer behavior (Hesse & Boenigk, 2023), trust is an established nonprofit factor that appears to be relevant in donation decisions.

Relationship category. The construct relationship category refers to how peer donors and fundraisers are connected. There are distinct ways to measure relationships (Brove & Jonson, 2001). In this context, it considers classifications such as family members, friends, and work colleagues. Peer fundraisers can be close relatives or distant peers, such as role models (Hesse & Boenigk). Scharf and Smith (2016) find that those with larger online social networks and looser connections to one person received more donations but smaller average contributions. This suggests that distant relationships evoke fewer donations. How does this relate to transformation likelihood? Two explanations can be considered. First, a strong bond between the peer fundraiser and donor may enable transformation, similar to referral marketing (Berman, 2016) which benefits from the higher credibility of friend or family recommendations. Second, it is possible that peer donors may only donate out of relational altruism, which could impede transformation. Given the possibility of both outcomes, a neutral hypothesis is formulated:

H5a: *The relationship category between the peer donor and peer fundraiser is related to the likelihood that a first-time peer donor transforms into an organizational donor by making a subsequent donation*

Trust in peer fundraiser. In the context of peer-to-peer fundraising, trust takes on a multifaceted role. Donors must trust the fundraiser and the organization they are supporting (Alhidari et al., 2018). Depending on the extent to which donors trust the peer fundraiser and their ability to make an appropriate selection of the organization to support, there might be spill-over effects on the perception of the nonprofit organization which influences their likelihood to donate.

Trusting a peer fundraiser can foster trust in an organization, reducing uncertainty and promoting transformation.

H5b: *A higher trust in the peer fundraiser is positively related to the likelihood that a first-time peer donor transforms into an organizational donor by making a subsequent donation.*

METHODS AND DATA

Data and Data Collection

The data was collected in July 2023 through an online survey targeting U.S. peer donors. The survey was administered using the Prolific Panel Provider and the participants received standard compensation for their participation. The U.S. was chosen due to the widespread familiarity with peer-to-peer fundraising among donors (Cole, 2023; Hessekiel, 2022). The target group in this study are peer donors (donors who have contributed money to peer-to-peer fundraising campaigns in the past). As no pre-defined sample criterion exists, a two-step data collection process was used to identify eligible participants. In the first stage, a short five-question survey was sent to 2,949 random participants registered with Prolific to identify them as peer donors. While 1,570 (53.2%) participants stated that they had not participated in peer-to-peer fundraising within the last three years, 1,380 did. Of those 1,364 agreed to participate in the main study (second stage). In the main study (second stage) data was collected to test the proposed model outlined in Figure 1. The participants confirmed their participation in a peer-to-peer fundraising campaign as donors, indicating the timing and details of the peer fundraising campaign they were involved in, including the nature of the event and the cause it supported. Following this, to assess their peer donor type (first-time peer donor vs. prior organizational donor) and transformation behavior the participants were asked whether they had donated before and after the peer campaign to the same organization. Afterwards, they were asked questions about their experience with the peer campaign, their relationship with the peer fundraiser and whether they received targeted communications after making their peer donation. Those who could recall the name of the affiliated organization were further asked to share their affinity with the mission and trust in the organization. Additionally, participants provided demographic information.

Participants

Among the 1,364 participants invited to participate in the study, 1,003 have started the survey. Of these, 129 participants were excluded as they did not provide data consent. Among the remaining 874 participants, 119 opted out early. Additionally, 29 peer donors were excluded due to their reporting that their peer donations occurred more than 36 months ago, introducing potential recall difficulties for such distant events. As a further validation measure, participants were required to provide names of specific peer-to-peer fundraising campaigns, and 20 participants were subsequently excluded for contributing to personal GoFundMe accounts, which were unrelated to peer-to-peer fundraising. Therewith, the final sample comprised 706 participants, with a response rate of 51.7%. Table 1 summarizes the characteristics of the final sample. For further analysis, results will be reported for the overall sample and the two subsamples: first-time peer donor (N =363) and prior-organizational donor (N = 343).

Table 1. Sample characteristics.

Variable	**Overall sample n = 706**	**First-time peer donor n = 363**	**Prior-organizational donor n = 343**
	N (%)	N (%)	N (%)
Gender			
Female	372 (52.7)	198 (54.5)	174 (50.7)
Male	323 (45.8)	159 (43.8)	164 (47.8)
Diverse	9 (1.3)	4 (1.1)	5 (1.5)
Missing	*2 (0.3)*	2 (0.6)	-
AGE	40.56	40.64	40.46
Employment status			
Employed full-time	424 (60.1)	226 (62.3)	198 (57.7)
Employed part-time	85 (12.0)	41 (11.3)	44 (12.8)
Self-employed	66 (9.3)	29 (8.0)	37 (10.8)
Unemployed	54 (7.6)	28 (7.7)	26 (7.6)
Student	20 (2.8)	11 (3.0)	9 (2.6)
Retired	41 (5.8)	21 (5.8)	20 (5.8)
Other	16 (2.2)	7 (1.9)	9 (2.6)
Income			
< $20,000	64 (9.1)	28 (7.7)	36 (10.5)
$20,000 - $39,999	89 (12.6)	45 (12.4)	44 (12.8)
$40,000 - $59,999	94 (13.3)	44 (12.1)	50 (14.6)
$60,000 - $79,999	110 (15.6)	67 (18.5)	43 (12.5)
$80,000 - $99,999	99 (14.0)	49 (13.5)	50 (14.6)

Variable	Overall sample n = 706	First-time peer donor n = 363	Prior-organizational donor n = 343
$100,000 - $149,999	165 (23.4)	77 (21.2)	88 (25.7)
$150,000 or more	85 (12.0)	53 (14.6)	32 (9.3)
Education			
High School Degree	60 (8.5)	32 (8.8)	28 (8.2)
Associate Degree	201 (28.5)	104 (28.7)	97 (28.3)
Bachelor Degree	274 (38.8)	131 (36.1)	143 (41.7)
Master's Degree	136 (19.3)	69 (19.0)	67 819.5)
Professional Degree	34 (4.8)	26 (7.2)	8 (2.3)
Missing	1 (0.1)	1 (0.3)	-
Previous donation behavior			
Yes	418 (59.2)	195 (53.7)	223 (65.0)
No	288 (40.8)	168 (46.3)	120 (35.0)
Religious			
Yes	277 (39.2)	123 (33.9)	154 (44.9)
No	405 (57.4)	229 (63.1)	176 (51.3)
Missing	24 (3.4)	11 (3.0)	13 (3.8)
Recall Organization Name			
Yes	474 (67.1)	199 (54.8)	275 (80.2)
No, remembered at some point	159 (22.5)	106 (29.2)	53 (15.5)
No	73 (10.3)	58 (16.0)	15. (4.4)

Measurements

Most of the factors in the framework were measured using established scales from the nonprofit management literature using a 5-point Likert scale (1= strongly disagree to 5 = strongly agree); a complete list of scale items is displayed in Appendix A. When necessary, the wording of the items was slightly adjusted to fit the peer context. The internal consistency tests for each construct revealed coefficient Cronbach's alpha values exceeding the threshold of 0.7. Therefore, for subsequent analyses, the factor scores were derived as the mean of the corresponding items.

Transformation behavior. The outcome variable *transformation behavior* was measured using a single-item binary measure. Participants were asked the following question: "After donating to the peer-to-peer campaign or event, have you made any subsequent donation(s) to the involved nonprofit organization?"

Experience-related factors. The measure of *overall satisfaction with peer donation* used two items, closely aligning with previous approaches for measuring donor satisfaction (Boenigk &

Helmig, 2013). Similarly, *perceived efficacy* was measured with three items used by Beldad et al. (2014) in their research on repeated donation intention and adapted to the peer context, for example, "I have the feeling my donation to the peer-to-peer fundraising campaign made a difference to the cause the campaign is supporting."

Nonprofit-organization-related factors. *Affinity with the mission of the organization* and *trust* are established constructs within nonprofit management literature. Their measure based on scales used by Beldad et al. (2015) and Wymer et al. (2021). As peer donors were asked to specify the name of the affiliated nonprofit organization, the items were personalized to the specific organization whenever applicable. For example: "I trust {name of specific nonprofit} to always act in the best interest of the cause."

Marketing-related factors. While *post-donation communication* was asked with a single item "Have you been contacted by the affiliated nonprofit organization after your peer donation," *word-of-mouth* on the peer donation was measured with four items adapted from Sundermann (2018).

Peer Fundraiser-related. The *relationship category variable*, which encompassed five options (family, friends, work colleagues, friend's friend, celebrity), was included in the analysis, with the "family" peer designated as the reference group. Additionally, participants had the option to specify other categories in an open-ended format (used for strangers and acquaintances). *Trust in the peer fundraiser* was measured on the same scale as trust in the nonprofit organization but adapted to the peer fundraiser.

Peer donor-related. Seven peer donor-related *socio-demographics* were included in the analysis (Table 1). *Age* was measured on a continuous scale, whereas *donation behavior* was assessed using a binary measure (0 = no donation in the past 12 months, 1 = donation in the past 12 months); all other variables were measured categorically as shown in Table 1. To reduce model complexity and simplify the interpretation of the results, I dummy coded the categorical variables and only used one reference category for the following variables: *education* (1 = bachelor's degree or higher, 0 = less than bachelor's degree), *employment* (1 = full-time employment, 0 = other), *income* (1 = USD 80,000 or more, 0 = less than USD 80,000), gender (1 = female, 0 = male or missing), and *religion* (1 = religious, 0 = not religious or missing). Additional analyses were performed using dummy variables for each category of the categorical variable. However, to maintain focus on the primary objectives of the study, the detailed results of these analyses are not reported here. Interested readers may request supplementary information for further insights into the effects of individual categories.

Peer donor type. The *peer donor type* was measured twice, initially during the five-question survey to identify the target group and subsequently the main study. Participants were asked "Have you donated to the same organization affiliated with the peer fundraising campaign before?".

Controls. The study includes controls for three peer campaign factors: the time since the peer donation as a continuous variable, cause of the peer campaign, and type of event. The *time since the peer donation* is measured as the number of months between the donation date and the time of the survey. The *cause of the peer campaign* and the *type of event* were collected as open answers and then coded into six categories (Table 2). Additionally, the model controls for whether peer donors are also *peer fundraisers* themselves (0 = not a peer fundraiser, 1 = peer fundraiser). Furthermore, the model includes controls for *fit* factors between the peer fundraiser, campaign, and organization, as measured by the established fit scale developed by Helmig et al. (2009).

Data analysis

The study's data analysis is divided into two parts, each addressing one of the two research aims. Regarding the first aim, to test the factors determining the transformation likelihood, and considering the binary nature of the outcome variable, logistic regression is performed using STATA 17. The analysis was performed on the entire sample and the subsamples.

Regarding the second aim, to evaluate the effectiveness of employing machine learning to identify which of the previously mentioned factors accurately predicts transformation likelihood at a donor-level, a random forest classifier approach is applied to the overall sample using the scikilt-learn library in Python. The random forest belongs to supervised learning, commonly used for predictive tasks by leveraging existing labeled data to predict future events in new datasets (Casado et al., 2023). While numerous algorithms exist, the random forest classifier was chosen, as it has been shown to provide accurate predictions in various studies (He et al., 2020; Peng et al., 2021; Rahman & Kumar, 2020). Random forest is an ensemble learning technique that constructs numerous decision trees and aggregates their predictions (Breiman, 2001), making it robust to outliers and nonlinear effects. In the study, based on the survey data the classifier predicts the category in which a peer donor fits into after the peer donation and probabilities for each category, making it particularly valuable for practitioners. The analysis was conducted on the entire sample. This approach reflects a real-world scenario where the classi-

fier's predictions can be directly applied to peer donors' behavior. By analyzing the entire sample rather than specific subgroups (such as first-time peer donors or prior-organizational donors), the study focuses on practical outcomes, aligning with the criteria that fundraisers would use to predict donor behavior.

RESULTS

Descriptive

Table 2 reports the descriptive statistics for all the constructs included in the model. The first column represents the overall sample of 706 individuals, followed by the two subsamples. The likelihood of transformation in the overall sample is 34.8%. This rate drops significantly to 14.1% among first-time peer donors, indicating that approximately one in seven peer donors did not donate to the organization before transforming. Among prior-organizational donors, the transformation likelihood is 56.9%. The results of the Chi-Square-Goodness of fit test confirm substantial between-group disparities, $X^2(1, N = 706) = 142.11$, $p = .001$.

Table 2 displays the mean values for the continuous independent variables, revealing a consistently strong level of agreement on a five-point scale (*1 = strongly disagree, 5 = strongly agree*), particularly regarding overall satisfaction with the peer process (M = 4.17; SD = 0.77) and trust in both the nonprofit organization (M = 4.44, SD = 0.71) and peer fundraiser (M = 4.51, SD = 0.66). Interestingly, the perceived efficacy ($M_{\text{first-time donor}} = 3.81$, $M_{\text{prior-organizational donor}} = 4.11$) and affinity with the mission ($M_{\text{first-time donor}} = 3.86$, $M_{\text{prior-organizational donor}} = 4.38$) of the peer donation are notably higher in the group of prior-organizational donor. Regarding, post-donation communication, a total of 263 participants were contacted by a nonprofit after their peer donation, with a higher percentage of prior-organizational donors being contacted. Further, more than half of the participants were asked by friends for donations. The most prevalent type of event associated with the campaign was sporting events such as walkathons (36.3%), followed by birthday fundraisers (26.3%). Approximately half of the participants donated to campaigns for health-related causes (48.2%). Furthermore, 45.2% of prior organizational donors participated as peer fundraisers themselves in a peer campaign, compared to only 21.5% of first-time donors. Furthermore, the results show that, on average, peer donors transform four months (M= 4.08, SD = 4.23) after their initial peer donation. This led to the consideration of including only peer donors whose peer donation occurred more than three months ago in the subsequent analysis to make sure they had enough time to transform. However, upon closer examination of the data, it was noted that some peer donors who donated less than three months prior had already

transformed. Consequently, all peer donors were included in the analysis to ensure a comprehensive representation of transformation dynamics within the peer donor population.

Table 2. Descriptive statistics.

Variable	**Overall n = 706**	**First-time peer donor n = 363**	**Prior organizational-donor n = 343**
Dependent Variable	**N (%)**	**N (%)**	**N (%)**
Transformation behavior			
Transformed	246 (34.8)	51 (14.1)	195 (56.9)
Not transformed	460 (65.2)	312 (86.0)	148 (43.1)
Independent Variables (continuous)	**Mean (SD)**	**Mean (SD)**	**Mean (SD)**
Overall satisfaction	4.17 (0.77)	4.12 (0.72)	4.22 (0.76)
Perceived efficacy	3.95 (0.86)	3.81 (0.84)	4.11 (0.86)
Affinity with the mission[a]	4.16 (0.90)	3.86 (1.00)	4.38 (0.74)
Trust in organization[a]	4.44 (0.71)	4.35 (0.73)	4.51 (0.69)
WOM	2.74 (1.18)	2.49 (1.14)	3.00 (1.17)
Trust in peer fundraiser	4.51 (0.66)	4.45 (0.65)	4.58 (0.66)
Independent Variables (binary/categorical)	**N (%)**	**N (%)**	**N (%)**
Post-donation communication			
Yes	263 (37.3)	102 (28.1)	161 (46.9)
No	443 (62.7)	261 (71.9)	182 (53.1)
Relationship Category			
Family	144 (20.4)	67 (18.5)	77 (22.4)
Friends	374 (53.0)	184 (50.7)	190 (55.4)
Work colleagues/classmate	107 (15.2)	69 (19.0)	38 (11.1)
Friends' friend	49 (6.9)	24 (6.6)	25 (7.3)
Celebrity/influencer	10 (1.4)	9 (2.5)	1 (0.3)
Acquaintance	22 (3.1)	10 (2.8)	12 (3.5)
Controls (continuous)	**Mean (SD)**	**Mean (SD)**	**Mean (SD)**
Time since peer donation	9.27 (7.55)	9.95 (7.60)	8.54 (7.44)
Fit[a]	4.56 (0.49)	4.52 (0.49)	4.59 (0.49)
Time until transformation [b]	4.08 (4.23)	3.85 (4.60)	4.13 (4.14)
Controls (binary/categorical)	**N (%)**	**N (%)**	**N (%)**
Type of event			
Birthday	186 (26.3)	100 (27.5)	86 (25.1)
Sporting event	256 (36.3)	118 (32.5)	138 (40.2)
Online event (gaming)	26 (3.7)	15 (4.1)	11 (3.2)

Variable	Overall n = 706	First-time peer donor n = 363	Prior organizational-donor n = 343
School fundraiser	8 (1.1)	4 (1.1)	4 (1.2)
Event	74 (10.5)	42 (11.6)	32 (9.3)
Other	156 (22.1)	84 (23.1)	72 (21.0)
Cause of Campaign			
Medical help/research	340 (48.2)	178 (49.0)	162 (47.2)
Vulnerable people	98 (13.9)	52 (14.3)	46 (13.4)
Children help	85 (12.0)	35 (9.6)	50 (14.6)
Animals	84 (11.9)	43 (11.8)	41 (12.0)
Education/culture	70 (9.9)	35 (9.6)	35 (10.2)
Other	29 (4.1)	20 (5.5)	9 (2.6)
Participation as Peer Fundraiser			
Yes	233 (33.0)	78 (21.5)	155 (45.2)
No	473 (67.0)	285 (78.5)	188 (54.8)

Note. N = 706; [a] N = 474, only donors remembering the name were asked Npo-related constructs, [b] information only available for the peer donors that have transforme

Results Logistic Regression

To ensure the suitability of logistic regression as the selected statistical method, a series of pre-checks were performed. Linearity in the logit was assessed using graphical representations, ensuring that the relationship between the predictor variables and log odds of the outcome was approximately linear. Moreover, no indications of multicollinearity or outliers were observed. A robust estimator was applied to account for potential issues related to heteroscedasticity and error distributions. Table 3 displays the parameter estimates (unstandardized and standardized) for the logistic regression models such as the Odds Ratio (OR), which represents the change in the odds of the dependent variable for a one-unit change in the independent variable while holding all other variables constant.

Table 3. Logistic regression.

	Model 1 Overall Peer Donor Sample			Model 2 Overall Peer Donor Sample			Model 3 Subsample First-time peer donor			Model 4 Subsample First-time peer donor			Model 5 Subsample prior-organizational donor			Model 6 Subsample prior-organizational donor		
Predictor Variables	**B**	**Z**	**OR**	**B**	**z**	**OR**	**B**	**z**	**OR**	**B**	**z**	**OR**	**B**	**z**	**OR**	**B**	**z**	**OR**
Experience-related																		
Overall satisfaction	-0.089	-0.56	0.92	-0.106	-0.50	0.90	-0.321	-1.2	0.73	-1.331*	-2.95	0.26	0.013	0.06	1.01	0.211	0.76	1.24
Perceived efficacy	0.456**	3.17	1.58	0.268	1.48	1.31	0.646**	3.01	1.91	0.067	0.20	1.07	0.416*	2.03	1.52	0.172	0.68	1.19
Nonprofit organization-related factors																		
Affinity mission	-	-	-	0.326	1.65	1.39	-	-	-	0.698*	2.23	2.01	-	-	-	0.220	0.72	1.25
Trust in org.	-	-	-	0.215	0.87	1.24	-	-	-	0.547	1.44	1.73	-	-	-	0.259	0.80	1.30
Marketing-related																		
Post-donation Commun.	1.001**	4.50	2.72	1.102**	4.1	3.01	1.203**	3.77	3.33	1.345**	3.17	3.84	0.884**	3.11	2.42	1.082**	3.16	2.95
Word-of-Mouth peer campaign	0.257**	2.64	1.29	0.305**	2.65	1.36	0.354*	2.37	1.43	0.506*	1.93	1.66	0.263*	1.96	1.30	0.395**	2.56	1.48
Peer fundraiser-related																		
Trust peer fundraiser	0.384*	2.20	1.47	0.473	1.88	1.61	0.423	1.45	1.53	0.847	1.69	2.33	0.434	1.81	1.54	0.636	1.68	1.89
Relationship category *(reference family)*																		
Friends	0.579*	2.18	1.79	0.754**	2.71	2.13	0.153	0.41	1.17	1.704**	3.32	5.49	0.753*	2.3	2.12	0.732*	1.97	2.08
Work colleagues/classmate	0.704	1.82	2.02	1.002*	2.11	2.72	0.172	0.31	1.19	1.699	1.87	5.47	1.074*	2.05	2.93	1.373*	1.94	3.95

	Model 1 Overall Peer Donor Sample			Model 2 Overall Peer Donor Sample			Model 3 Subsample First-time peer donor			Model 4 Subsample First-time peer donor			Model 5 Subsample prior-organizational donor			Model 6 Subsample prior-organizational donor		
Friend's Friend	0.365	0.66	1.44	0.378	0.45	1.46	1.813*	3.33	6.13	3.777**	4.44	43.69	-0.670	-1.14	0.51	-1.188	-1.49	0.30
Celebrity	0.319	0.29	1.38	0.323	0.28	1.38	1.039	1.08	2.83	3.777*	2.23	43.66	Omitted			Omitted		
Ac-quaintance/stranger	1.680*	3.40	5.37	2.594**	4.31	13.4	0.094	0.10	1.10	1.684	1.67	5.39	2.870**	3.81	17.63	3.445**	3.21	31.35
Peer donor-related																		
Gender *(dummy)*	0.237	1.09	1.27	0.259	1.03	1.30	0.138	0.49	1.15	-0.006	-0.02	0.99	0.520	1.77	1.68	0.480	1.36	1.62
Age	0.002	0.26	1.00	0.003	0.37	1.00	0.010	0.73	1.01	0.033	1.64	1.03	-0.002	-0.21	1.00	-0.004	-0.32	1.00
Religion *(dummy)*	-0.213	-1.00	0.81	-0.158	-0.62	0.85	0.527	1.60	1.69	0.520	1.26	1.68	-0.562*	-2.01	0.57	-0.336	-1.00	0.71
Income *(dummy)*	-0.320	-1.48	0.73	-0.021	-0.08	0.98	-0.606	-1.91	0.55	0.031	0.07	1.03	-0.192	-0.69	0.82	-0.006	-0.02	0.99
Education *(dummy)*	0.663**	2.86	1.94	0.433	1.63	1.54	0.842*	2.55	2.32	0.124	0.30	1.13	0.744*	2.50	2.10	0.528	1.54	1.69
Employment *(dummy)*	-0.155	-0.66	0.86	-0.197	-0.69	0.82	-1.127**	-2.67	0.32	-2.298**	-3.67	0.10	0.234	0.73	1.26	0.342	0.85	1.41
Donation be-havior *(dummy)*	0.297	1.32	1.35	0.134	0.50	1.14	0.139	0.44	1.15	0.521	1.21	1.68	0.377	1.27	1.46	0.124	0.35	1.13
Controls																		
Time since peer donation	0.010	0.66	1.01	0.013	0.73	1.01	0.010	0.49	1.01	0.039	1.33	1.04	0.020	1.03	1.02	0.012	0.53	1.01
Participation as a peer fundraiser	0.883**	3.94	2.42	0.982**	3.78	2.67	0.632*	1.95	1.88	0.473	0.88	1.60	1.087**	3.72	2.97	1.256**	3.8	3.51
Donor Type	1.957**	8.69	7.08	1.623**	5.94	5.07	-	-	-	-	-	-	-	-	-	-	-	-
FIT	-	-	-	-0.594	-1.85	0.55	-	-	-	0.241	0.38	1.27	-	-	-	-0.94*	-2.33	0.39

	Model 1 Overall Peer Donor Sample			Model 2 Overall Peer Donor Sample			Model 3 Subsample First-time peer donor			Model 4 Subsample First-time peer donor			Model 5 Subsample prior-organizational donor			Model 6 Subsample prior-organizational donor		
Type of event *(reference birthday)*																		
Sporting event	-0.532	-1.84	0.59	-0.837*	-2.41	0.43	-0.121	-0.33	0.89	-0.270	-0.56	0.76	-0.770*	-2.05	0.46	-1.169*	-2.47	0.31
Streaming/on-line	0.128	0.21	1.14	-0.041	-0.06	0.96	0.145	0.17	1.16	-0.102	-0.08	0.90	0.727	0.77	2.07	0.353	0.38	1.42
School fundraiser	1.020	0.97	2.77	-0.028	-0.03	0.97	3.039*	2.89	20.89	1.033	0.96	2.81	-0.033	-0.03	0.97	-0.138	-0.12	0.87
Event	0.585	1.35	1.80	0.371	0.70	1.45	1.055*	2.12	2.87*	1.409	2.35	4.09	0.515	0.77	1.67	-0.219	-0.28	0.80
Other	-0.283	-0.89	0.75	-0.405	-1.05	0.66	-0.455	-0.97	0.63	0.068	0.09	1.07	-0.130	-0.31	0.88	-0.408	-0.82	0.67
Cause of campaign *(reference children)*																		
Vulnerable people	-0.454	-1.20	0.63	-0.742	-1.56	0.48	-0.406	-0.70	0.67	-1.388	-1.82	0.25	-0.576	-1.06	0.56	-1.001	-1.41	0.37
Animals	0.270	0.66	1.31	0.041	0.08	1.04	0.638	1.01	1.89	-0.182	-0.19	0.83	0.383	0.63	1.47	0.133	0.18	1.14
Education/culture	-0.060	-0.15	0.94	-0.050	-0.09	0.95	0.097	0.16	1.10	-0.929	-0.99	0.39	-0.319	-0.57	0.73	-0.493	-0.65	0.61
Medical	-0.135	-0.42	0.87	-0.259	-0.63	0.77	0.123	0.23	1.13	-0.685	-0.89	0.50	-0.167	-0.30	0.85	-0.389	-0.63	0.68
Other undefined	-0.634	-0.77	0.53	-1.435	-1.21	0.24	0.196	0.24	1.22	0.643	0.46	1.90	-2.451	-2.03	0.09	-3.263	-3.34	0.04
Constant	-7.211	-6.45		-6.108	-4.21		-7.378	-4.18		-10.74	-2.57		-5.922	-4.08		-4.329	-2.25	
Observations	706			474			414[a]			240[a]			343			247		
PseudoR²	0.327			0.314			0.275			0.363			0.247			0.2839		
Log pseudo-LL	-307.16			-222.03			-167.53			-98.18			-175.93			-132.44		
WaldChi	179.41			131.60			96.27			94.92			83.37			71.66		

*Note: Coeff = regression coefficient, z = standardized regression coefficient, Std. Err = Standard Robust Error; Continous constructs measured on a 5-point Likert scale (1= does not apply at all, 5 = applies entirely), ** p< 0.01, * p < 0.05, a In Model 3 and Model 4 oversampling was employed to address class imbalance; instances of transformed cases were weighted double*

Table 3 presents results for the overall sample (Models 1 and 2) to illustrate the overarching patterns observed in transformation behavior across the entire peer donor dataset. Additionally, the table provides insights into the two distinct subgroups: first-time peer (Models 3 and 4) and prior-organizational donors (Models 5 and 6). This subgroup analysis addresses potential differences between the groups and offers a more nuanced understanding of transformation behavior within each subgroup. Models 1, 3 and 5 incorporate experience, marketing, peer fundraiser, and peer donor-related factors such as controls. Models 2, 4, and 6 incorporate the nonprofit-related factors which are only reported by those survey participants who remember the names of the nonprofit organizations related to their peer donations at the time of the survey.

Peer Donor Transformation Model. Evaluating the overall model performance, the models show that the Wald Chi-value is significantly different from zero ($p < 0.01$). This indicates that the models represent a significant improvement over the baseline model, which contains only the intercept and no predictors. The results section addresses the most significant differences among the sub-groups. To test the hypotheses, the coefficients for Model 3 are displayed specifically for the first-time peer donors.

Experience-related factors. To test hypothesis H1a, I examined the regression coefficient for overall satisfaction in Model 3, which was found to be negative and nonsignificant, with a coefficient of -0.321 (n.s.). The negative sign suggests that lower levels of satisfaction are paradoxically linked to higher levels of transformational behavior. Thus, H1a is rejected. In support of H1b, the coefficients of perceived efficacy in Model 3, demonstrate a positive and significant impact ($b=.646$, $OR=1.91$, $p<0.01$). Overall, perceived efficacy consistently predicts transformational behavior in both subgroups, yet becomes insignificant when considering nonprofit-related factors in models 2, 4, and 6.

NPO-related factors. While affinity with the mission ($b=.698$, $p<0.05$) is positively associated with transformation behavior among first-time peer donors, supporting H2a, Model 4 does not indicate such an effect on trust in the nonprofit organization. However, in Model 6, none of the nonprofit organization-related factors show a significant influence on the likelihood of transformation among prior-organizational donors.

Marketing-related factors. Both marketing-related factors show a significant influence across all models emphasizing their robustness as predictors of transformation behavior. In support of H3a, the positive and significant coefficients underscore the importance of post-donation communication with peer donors ($b=1.203$, $OR=3.3$ $p<.001$) with the OR indicating that peer donors who are contacted are 3.3 times as likely to transform compared to those that do not. In support

of H3b, the findings reveal that peer donors who positively discuss their donations within their social circles (WOM) show an increased inclination to make direct contributions to organizations (b=0.354, OR=2.37, p<.05).

Peer fundraiser-related factors. Regarding the relationship category, Model 3 shows that the transformation likelihood significantly increases when first-time peer donors are approached by friends of friends (b=1.813, OR=6.13, p<0.5), compared to family members. The OR suggest a five-fold increase in the likelihood to transform. For other relationship categories no significant effect was found, Thus, H5a is partly confirmed. The effect of trust in the peer fundraiser on the transformation likelihood reaches no statistical significance at the 5% level (b=0.423, p=n.s). Thus, H5b is rejected.

Peer donor-related factors. Among the peer donor characteristics, only the dummy variable of education (b=0.842, OR=2.32, p<.05) and income (b=-.1.127, OR=0.32, p<0.01) are significantly related to the transformation behavior. The results suggest that peer donors with a bachelor's degree or higher but a lower income than USD 80.000 are more likely to transform. No significant effects were observed for sex, age, employment status, or religion. This finding contrasts with traditional fundraising (Wiepking & Bekkers, 2012). Given the limited theoretical foundation for predicting peer donor characteristics and donation behavior, I refrain from an extensive interpretation and instead document these results for potential future research.

Controls. Peer donors who have participated as peer fundraisers before show a greater transformation likelihood in both subgroups. This underscores the interchangeable roles peer donors and fundraisers play in peer campaigns, aligning with previous research highlighting the fluidity of peer engagement behaviors (Lin et al., 2019). No significant differences are found in other control variables for first-time donors.

Assessing Donor Transformation with Machine Learning

Labeled Data. In our supervised learning approach, labeled data plays a crucial role in training the classifier to predict outcomes based on input features. The features for the supervised learning approach equal the measurement of factors from the binary logistic regression. To enhance the accuracy of the classifier and mitigate complexity, I performed feature selection, choosing 15 factors from the dataset to serve as features for training the classifier. These selected features (Table 4) were determined based on their relevance to the prediction task and their alignment with the types of information readily available to nonprofit organizations. For instance, factors

such as donor demographics, the type of event and cause of the event, such as the donation history of the peer donor were included, as these are commonly accessible data points for nonprofit organizations. The decision to prioritize features that nonprofit organizations are likely to have readily available was guided by the practical considerations of real-world implementation. For example, it is improbable that organizations would have access to subjective measures such as the level of efficacy donors perceive. Therefore, I focused on integrating features that are actionable and feasible for nonprofits to collect and utilize in their operations.

Table 4. Overview of selected features for random forest classifier.

Variable		**Data type**
1	Overall satisfaction	Continuous (Likert 1-5)
2	Age	Continuous
3	Time since peer donation	Continuous
4	Relationship Category	Categorical
5	Type of event	Categorical
6	Cause of campaign	Categorical
7	Marketing targeting (in framework post-donation communication)	Binary (1 = targeted after peer donation)
8	Donor type	Binary (1 = donated once at the nonprofit organization affiliated with the peer donation)
9	Participation as peer fundraiser	Binary (1 = participated as peer fundraiser)
10	Donation habit	Binary (1 = donated within last 24 months)
11	Gender	Binary (1 = female)
12	Religion	Binary (1 = not religious)
13	Employment	Binary (1 = fulltime)
14	Income	Binary (1= USD 80,000 or more)
15	Education	Binary (1 = Bachelor or more)

Data preprocessing. Before training the random forest classifier on the survey data, the data was preprocessed using the Pandas library in Python (Abd Elrahman & Abraham, 2013; Peng et al., 2021). No missing values were encountered, the three categorical variables, type of event, cause of campaign, and relationship category were transformed via one-hot encoding (De

Caigny et al., 2018), and outliers were checked. To counteract class imbalance - 246 (34.8%) instances in the positive class "transformed" and 460 (65.2%) in the negative class "not-transformed – random oversampling was performed (Orhobor et al., 2023), which artificially increased the minority class. Using the train_test_split function in the Sklearn library, the dataset was randomly divided into training (80%; N = 564) and testing (20%; N = 142) sets to validate the model's performance on new, unseen data, thus assessing its ability to generalize beyond the training set (Altinisik et al., 2023).

Results of model performance. Evaluating the overall performance of the random forest classifier, the accuracy value demonstrates that the random forest classifier accurately predicted the outcomes for the test sample of N = 142 with an accuracy rate of approximately 76.8% (Table 5). The Matthews Correlation Coefficient (MCC) of .509 also suggests a reasonably good fit between the classifier's prediction and true outcome values (Chicco & Jurman, 2020).

Table 5. Results predictive performance.

Classifier	**Accuracy**	**MCC**
Random Forest	76.76%	0.509

Note. The accuracy of each model was assessed through 10-fold cross-validation; Test sample size of N = 142 for assessing classifier performance.

The confusion matrix illustrated in Table 6 provides a more differentiated evaluation of the quality of predictions across all classes. It indicates that the random forest classifier accurately classified 85 instances as not-transformed and 27 as transformed. Additionally, the classifier misclassified 21 transformed instances as not-transformed and nine not-transformed as transformed. Four key metrics assess this finding further: recall (sensitivity) for capturing actual transformers (27/48 = 56.25% in this case), specificity for identifying non-transformed instances (85/94 = 90.48%), precision for accurate transformation predictions (36/48 = 75.0%), and the F1-score showing that the model performed better at identifying non-transformed instances (F1-score of 0.85) than transformed instances (F1-score of 0.64).

Table 6. Results confusion matrix binary classification.

		Predicted		
		Not-transformed	**Transformed**	
Actual	**Not-transformed**	85 (true negative)	9 (false positive)	94 (actual not-transformed)
	Transformed	21 (false negative)	27 (true positive)	48 (actual transformed)
		106 (predicted not-transformed)	36 (predicted transformed)	**142 (total)**

Note. Test Sample N = 142

Results on feature importance. In Appendix B an illustrative representation of the features and their relative importance in predicting the transformation behavior are presented in descending order. In a Random Forest model, the relative importance of variables measures the degree of association between a specific variable and the overall classification result estimate. It quantifies the contribution of each variable to the predictive performance of the model. Variables with higher relative importance are considered more influential in determining the classification outcome, while those with lower relative importance have less influence (Cloutier et al., 2021). The feature importance analysis shows that among the 15 selected features, donor type with a relative feature importance score of 0.217 (range 0 to 1) emerged as the most prominent factor shaping the decisions of the classifier. Furthermore, the age of the peer donor (.098), marketing-targeting (.092), and participation as a fundraiser (.087) showcase a noteworthy influence on the predicted outcome. Contrastingly, the type of event, cause of the campaign, and most sociodemographics show low importance. To reduce the model complexity and to make the classifier more suitable for practice, a recursive feature elimination technique is employed. This allows to obtain a subset of six features that performed well in predicting transformation behavior, similar to the overall model. The selected optimal features are donor type (0.236), age (0.226), time since peer donation (0.176), satisfaction (0.132), marketing targeting (0.119), and participation as a peer fundraiser (0.113). This process slightly lowers the prediction accuracy (74.6% vs. 76.8%), but simultaneously reduces the model complexity. Appendix C displays one representative decision tree from the random forest ensemble. This tree demonstrates how the classifier processes the selected features to make predictions.

DISCUSSION

This study examines peer donor transformation and its determining factors conceptually and empirically, while also providing insights into the capability of machine learning to predict the transformation behavior of donors based on various features related to the donor. The findings reveal a transformation likelihood of 14.1% for first-time peer donors, who haven't been affiliated with the organization before, indicating a great potential of peer-to-peer fundraising to expand nonprofit organizations' donor base. Notably, prior-organizational donors exhibit a significantly higher transformation rate of 56.9%, highlighting their multi-facet role as peer and organizational donors. Role fluidity has been found in peer-to peer business models (Lin et al., 2019), with peers being the service consumer in one transaction and the service provider in another. This also warrants further exploration in the peer fundraising context, where the concept of transformation could extend beyond peer donor transformation to organization donors and encompass transformation of peer donors to peer fundraisers, or peer fundraisers to permanent organizational donors. This exploration could provide valuable insights into the multifaceted nature of peer-to-peer fundraising dynamics.

One of the most prevalent findings concerning key factors influencing peer donor transformation is the robust predictive power of the marketing-related factors across all models. This aligns with research emphasizing the importance of solicitation in donor engagement (Bekkers & Wiepking, 2011). This finding also emphasizes the notion of Sargeant (2001), who argues that not engaging with donors and not prompting them for a second gift increases the chance of losing them as donors. Interestingly, positive WOM among peer donors significantly increases the likelihood of transformation, underscoring the power of interpersonal advocacy in fundraising contexts (Sundermann, 2018). While this phenomenon is widely discussed in marketing literature (Berman, 2016), it warrants potential for future research in fundraising. In line with previous relationship research (Beldad et al., 2014), we find an expected relation between the affinity with the mission of the nonprofit organization and transformation likelihood.

Moreover, the findings contribute to understanding the dynamics of peer donor-fundraiser relationships. Meer (2011) and Scharf and Smith (2016) suggest that close relationships drive peer donations, however, this study suggests that such relationships may hinder peer donors' transformation into organizational supporters. This aligns with Granovetter's weak ties concept (1974), suggesting that individuals with weaker ties, such as coworkers, may serve as better bridges between social circles, and adapt to the context between the peer donor and nonprofit

organization. Adapted to this study's findings, friends of friends may donate to the peer campaign based on their affinity with the mission, whereas family members may prioritize peers' success over the organization's goals. Consequently, the likelihood of transformation increases for friends of friends, given their deeper engagement with the cause (Scharf & Smith, 2016).

As an overall theoretical implication, this study suggests that while traditional fundraising literature offers valuable insights, it may not fully capture the complexities of peer donor transformation. Some of the well-established concepts like satisfaction with the donation process (Beldad et al., 2015) and trust in the organization appear to be less relevant for donotr transformation in a peer context. Simultaneously, the results show that context specific factors such as the relationship category seem important. Thus, literature necessitates an expansion beyond traditional fundraising theories when studying new fundraising contexts.

Recently, nonprofit management research has explored using machine learning to predict donor behavior (Althoff & Leskovec, 2015; Zaho et al., 2019). The study adds to this by first showing that applying random forest on the survey data to predict individual-level peer donor behavior can achieve almost 77% prediction accuracy. Second, employing a recursive feature elimination technique resulted in identifying a subset of six features that as effectively predicted transformation behavior as the full model. This suggests that accurate predictions can be achieved with a smaller set of factors, which is particularly important for nonprofit managers with limited data resources. The selected optimal features, namely peer donor type, age of the peer donor, time since peer donation, overall satisfaction, marketing targeting, and participation as a peer fundraiser, are factors that fundraising managers are likely to access and track within a data donor relationship system, allowing them to predict donor transformation more efficiently.

MANAGERIAL IMPLICATION

This study has managerial implications for peer fundraising managers, especially for peer donor management. It shows that peer donor transformation is not random but can be explained by various factors. Therefore, the findings address the following questions: (1) how to foster the willingness of peer donors to transform, and (2) how to identify peer donors with the highest likelihood of transformation.

Logistic regression findings first suggest that targeting peer donors after their initial donation is essential, as the contacted peers have three times the odds of transforming. Thus, incorporating communication channels into a peer campaign structure is key to engaging and connecting

with donors. Second, the findings reveal that donors sharing positive donation experiences are more likely to transform, suggesting campaigns should evoke excitement and encourage conversation. Dynamic social media initiatives and donation sharing can boost campaign success and transformation likelihood. Overall peer donor transformation needs to already be considered when designing the peer-to-peer fundraising campaign.

Additionally, machine learning can be actively used in donor management. The random forest classifier's effectiveness in predicting donor transformation highlights machine learning's potential to identify transforming donors. Comprehensive peer donor data is essential for accurate algorithms. The type of data needed varies, but I suggest using digital platforms connected to peer-to-peer fundraising campaigns to gather data proactively.

LIMITATION AND FUTURE RESEARCH

The first limitation is the data used. Self-reported data can explore attitudes and motivations behind donation decisions, but is vulnerable to bias and relies on respondents' accuracy and honesty. Utilizing behavioral or observable individual transaction data would enable larger-scale testing and provide a more objective and comprehensive perspective, potentially overcoming the constraints of self-reported data.

Second, only the basics of machine learning were employed. Further advancements in predictive modeling can be achieved by comparing different algorithms and incorporating additional features. This is especially important as higher priority should be given to improving the ability of this model to reduce the classification of false negatives. Classifying peer donors that transform into non-transformed peer donors could be seen as a more severe problem, as it means a lost potential.

Third, the study only includes the transformation as a dummy variable and not the donation amount. This was due to expected difficulties in recalling the exact amount, which could skew the results. However, literature usually models both decisions to gain a comprehensive view of the donation pattern (Faulkner et al., 2016). Future research could explore peer-donor transformation length and profitability using nonprofit behavioral data. Knowing if peer donors are likely to remain single-time donors would help nonprofits optimize resources or focus on finding permanent donors. Additionally, it is worth considering exploring transformation in terms of attitudes, identification towards the organization or philanthropy in general (Robledo, 2024).

Finally, the country context presented a severe limitation. The U.S. demonstrated a significant emphasis on peer fundraising, and it is reasonable to expect that the situation in Europe could differ substantially.

This study emphasizes the need for post-donation communication with peer donors. Researchers could assess the effectiveness of different follow-up strategies, considering the goals of nonprofits, such as converting peer donors to organizational donors, recruiting them as peer fundraisers, and retaining them as peer donors. Experiments in real-world settings with innovative methods, such as uplift modeling, should be conducted to achieve this.

CONCLUSION

In conclusion, this study underscores the multifaceted potential of peer-to-peer fundraising, highlighting its efficacy beyond short-term benefits such as fast revenue generation but also as a powerful retention tool. By identifying factors influencing peer donor transformation, this research offers valuable insights into facilitating and hindering conditions for transformation. Moreover, it advocates for the utilization of hybrid approaches combining traditional conceptualization approaches with emerging technologies like machine learning, to identify individuals who are most likely to transform. As the fundraising landscape evolves, the findings further emphasize the need for adaptive frameworks and theories that can effectively navigate new terrain. Ultimately, this study serves as a valuable resource for practitioners, offering guidance on designing peer campaigns for retention purposes and leveraging data analytics to enhance predictive capabilities.

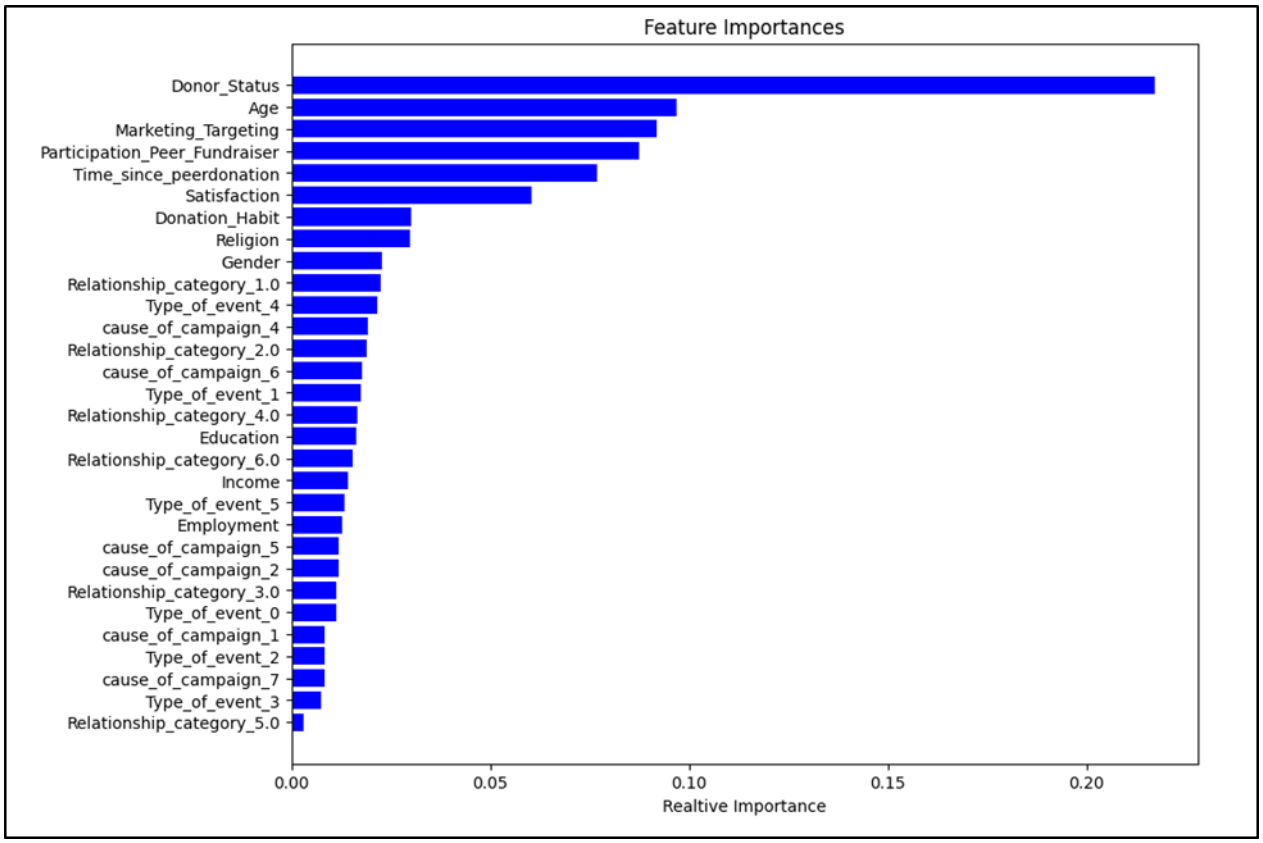
APPENDIX

Appendix A. Measurement and quality report.

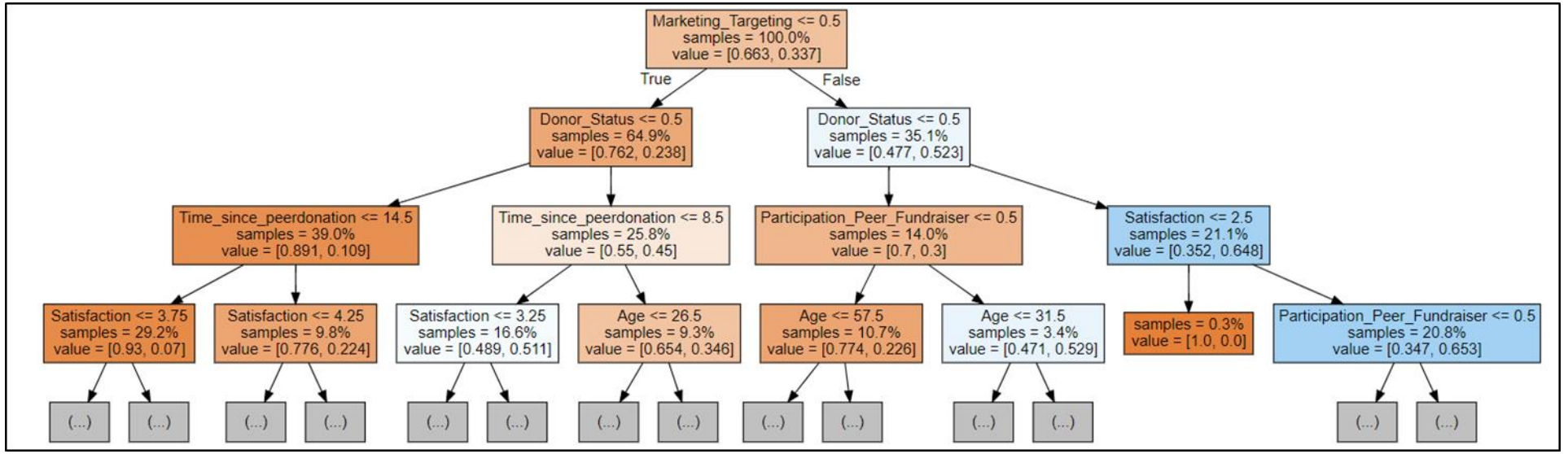
Measurement quality of all constructs (5-point Likert scale, 1 = strongly disagree, 5 = strongly agree)		
	Mean (SD)	Cronbachs Alpha
Experience-related factors		
Overall satisfaction with peer donation (Boenigk & Helmig, 2013)		.815
Overall, I am satisfied with the whole process of the peer donation.	4.24 (.808)	
When I reflect on my expectation before I made the donation in the peer-to-peer fundraising campaign, the peer donation process fulfilled my entire expectations.	4.09 (.874)	
Perceived efficacy of peer donation (Beldad et al., 2014)		.933
I have the feeling my donation to the peer-to-peer fundraising campaign made a difference to the cause the campaign is supporting.	3.87 (.930)	
I have the feeling with my peer donation, I can really help the beneficiaries of the cause.	3.93 (.930)	
I have the feeling my peer donation will help the beneficiaries.	4.06 (.888)	
Marketing-related factors		
Word of Mouth Peer-Campaign (adapted Sundermann, 2018)		.901
After my donation to the peer-to-peer campaign…		
I often spoke favorably about my donation in the peer-to-peer campaign in social situations.	2.92 (1.333)	
I brought up information about my donation in the peer-to-peer campaign in a positive way in conversations I had with friends and family	2.83 (1.390)	
I 'talk up' my donation whenever I got the chance.	2.16 (1.291)	
I recommend people that I know to support the peer-to-peer campaign themselves.	3.04 (1.358)	
Nonprofit-related factors		
Affinity with the mission (Beldad et al., 2015)		.913
I feel a strong connection to the mission of {name nonprofit}.	4.05 1.028)	
{name nonprofit} supports at least one cause that is important to me.	4.47 (.758)	
The cause(s) {name nonprofit} supports is related to an important aspect of my life.	4.48 (.758)	
The mission of {name nonprofit} is one that is close to my heart.	4.16 (1.039)	
Continues next page		

Measurement quality of all constructs (5-point Likert scale, 1 = strongly disagree, 5 = strongly agree)		
Trust in NPO (Wymer et al., 2021)		.935
I trust {name nonprofit} to always act in the best interest of the cause.	4.36 (.795)	
I trust {name nonprofit} to conduct its operations ethically and honestly.	4.47 (.758)	
I trust {name nonprofit} to use donations appropriately.	4.48 (.758)	
I trust {name nonprofit} to not exploit its donors.	4.47 (.794)	
Trust in Peer (adapted from organizational trust scale)		.875
I perceive {peer fundraiser name} as trustworthy.	4.53 (.743)	
I trust {peer fundraiser name} to ensure that (s)he is informed that my donation is well managed.	4.47 (.766)	
I trust {peer fundraiser name} to ensure that (s)he is informed that my donation is well managed.	4.54 (.704)	
Control		
FIT (Helmig et al., 2009)		.789
The mission of {name nonprofit} and the peer-to-peer fundraising campaign are complementary and fit well together.	4.57 (.614)	
{Peer fundraiser name} fits well as peer fundraiser of {name nonprofit}.	4.59 (.670)	
{Peer fundraiser name} fits well as peer fundraiser for the cause the peer-to-peer campaign supports.	4.57 (.679)	
My interest fit the cause the peer-to-peer campaign supports.	4.53 (.679)	
My interests fit the mission of {name nonprofit}.	4.54 (.675)	

Appendix B. Feature importance results.



Appendix C. Example decision tree of the random forest ensemble.



Description of example decision tree. The decision tree in Appendix C demonstrates how the classifier processes the selected features to make predictions. The decision tree is structured as a series of binary splits, with internal nodes representing a feature and a threshold value that determines whether an instance follows the left or right branch of the tree. As the data points pass through the tree, they follow rules based on the features and proceed along a specific path until they reach an endpoint called a leaf (Breiman, 2001). This leaf corresponds to the prediction of the group to which a data point belongs. One possible scenario is visualized in Appendix C. The colors provide visual cues, with blue indicating a higher likelihood of being "transformed" and red indicating "untransformed." Imagine peer donor A, which I will explain through the decision tree. In the initial split of the tree, the algorithm determines whether peer donor A is targeted after the peer donation. Assuming Peer Donor A was "targeted," the path to the right is taken. (The percentage after the sample indicates that this applies to 35.1% of the sample). In this scenario, Peer Donor A would be classified as "transformed" with a 52.3% likelihood. However, this alone is not sufficient to make definitive predictions. We then evaluate the donor type of Peer Donor A regarding whether they have donated once. Again, the donor is directed along the right branch. Peer Donor A would now be classified as "transformed" with a likelihood of 64.8%. However, because this is too uncertain, a new split arises, considering donor satisfaction with a threshold of 2.5. If, like Peer Donor A, a donor expresses substantial dissatisfaction with the peer satisfaction (lower than 2.5 on a 5-point Likert scale) due to past issues, the classifier would direct the donor to the left and classify them as "not transformed." Notably, individuals targeted by marketing who were previous donors but remained dissatisfied are categorized as "non-transformed." The path of Peer Donor A applied to only 0.3% of the sample.

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Kapitel 5: Explaining peer-to-peer giving through social discounting

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Explaining peer-to-peer giving through social discounting

Laura Hesse, Ursa Bernardic and Giuseppe Ugazio

Abstract

Peer-to-peer fundraising is among the prominent trends in philanthropy, mirroring the increase of peer-to-peer exchanges in economy. However, the current knowledge on this phenomenon is mostly descriptive in nature, lacking a strong theoretical framework. In our study, we draw on insights from the social discounting literature to investigate if peer-to-peer giving can be explained through the framework of social distance. We further combine quantitative and qualitative measures to precisely characterize who qualifies as a peer in the context of donations to build the foundations for a data-driven definition of "peers". The results obtained from a representative experimental online survey (N = 301) confirm the importance of social distance in peer-to-peer giving: with peers listed as socially closer (family and close friends) garnering the highest donations and, peers listed as socially more distant (e.g. celebrities and strangers) eliciting lower donations. Furthermore, consistent with social discounting theory, our exploratory analysis suggests a non-linear pattern of donation behavior. We find that as the social distance increases, the donation amount decreases rapidly initially but gradually levels off as the social distance becomes larger. The crowd-sourced exploration of the "peer" concept reveals that peers share similarities in various aspects such as age, social standing, education, and interests. They engage in regular interactions both within professional settings, such as colleagues, and social environments. The study contributes to consumer psychology and peer-to-peer giving by engaging discussion on social distance in peer-to-peer networks. Our results hold implication for fundraising managers by guiding the selection of effective peer fundraisers.

Keywords

Social discounting, peer-to-peer, fundraising

INTRODUCTION

Peer-to-peer (business) models, exemplified by platforms like Uber or Airbnb, have emerged as influential contributors to the marketplace, offering consumers new ways for transactions and interactions (Brodie et al., 2019; Cakanlar & Ordabayeva, 2023). In these models, private individuals may act as peer providers, assuming roles such as sellers (e.g., eBay), drivers (e.g., Uber, Blablacar), or hosts (e.g., Airbnb, HomeToGo), interconnected through online platforms to provide services to or share resources with peer customers (Costello & Walker Reczek, 2020; Wirtz et al., 2019). These peer customers, in turn, engage with the system by writing reviews, sharing expertise, and providing referrals (Chung et al., 2022). This new network dynamic has prompted scholars from diverse academic backgrounds to contribute to the understanding of why peers participate in these peer-to-peer exchanges, spanning disciplines such as consumer psychology (Cakanlar & Ordabayeva, 2023; Chaplin & Roedder John, 2010; Nguyen & Wang, 2021; Sepehri et al., 2021), service research (Brodie et al., 2019; Lin et al., 2019), or marketing research (Costello & Walker Reczek, 2020; Pino et al., 2022).

While these studies have primarily focused on peer-to-peer business models (Blasco-Arcas et al., 2016; Lin et al. 2019), a similar phenomenon exists within the charitable sector known as peer-to-peer fundraising. This approach represents a burgeoning trend in philanthropy, where private individuals, known as peer fundraiser, engage their social networks (potential peer donors) to raise funds for charitable causes on behalf of a nonprofit organization (Chapman et al., 2019; Hesse & Boenigk, 2023). This form of fundraising enjoys great popularity among nonprofit organizations, as it not only allows them to leverage their supporter's network to increase their donor base but also to delegate part of the outreach efforts (Hessekiel, 2022). Such peer-to-peer fundraising campaign networks typically involve: a) nonprofit organizations; b) private individuals endorsed by the nonprofit organization as peer fundraisers, c) peer donors donating to the peer fundraiser and d) freedom with respects to the ways in which peer fundraisers decide to approach their private social network (e.g holding a private event), to raise funds. For example, the American Heart Association, launches annually the nationwide peer-to-peer event "American Heart Walk", where supporters of the association are asked to function as peer fundraisers. Participants form teams and actively engage in the campaign, urging friends and family to sponsor their involvement in the walk and make donations to support the mission of combating heart diseases. This collaborative effort contributes to raising awareness and vital funds for cardiovascular research and education (American Heart Association).

While parallels exist between peer-to-peer models in both business and non-business settings, such as the utilization of online platforms (Blasco-Arcas et al., 2016; Cakanlar & Ordabayeva, 2023; Lin et al., 2019; Saxton & Wang, 2014) and multi-layered relationships (Brodie et al., 2019) involved, a primary distinction remains. In business-oriented peer-to-peer models, transactions typically involve the exchange of goods or services for monetary compensation. In contrast, in nonprofit-oriented settings, donations are made without expectation of reciprocity (Bekkers & Wiepking, 2011). Consequently, it is probable that peer engagement in socially-oriented nonprofit contexts is driven by different motivations than in performance-driven peer-to-peer business contexts. In such business contexts, Cakanlar & Ordabayeva (2023) suggest that the motivations of peer consumers may include consumers' economic system justification or customer identification with the service provider as suggested by Pino et al., (2022), however there is a call for more research on motivations to participate in peer-to-peer networks (Chung et al., 2022).

On the other hand, existing research on peer-to-peer giving in a non-business context (Chapman et al., 2019; Hesse & Boenigk et al., 2023; Priante et al., 2021; Scharf & Smith, 2016) suggests that the motivation of peer donors to donate in peer-to-peer campaign is their personal connection to the peer fundraiser. Several studies have provided initial indications that stronger personal connections between the peer fundraiser and the peer donor lead to (more) donations. For example, analyzing information on 18,060 alumni from a large university in the United States, Meer (2011) reported that peers are more likely to give and give larger average amounts when being solicited by peers they have strong social ties with compared to strangers or loose acquaintances. Moreover, drawing on a dataset of over 35,000 individual fundraising pages, Scharf & Smith (2016) proposed that peer donors are motivated to donate to peer-to-peer fundraising campaigns because they care about the fundraiser, what the author defines 'relational altruism'. However, this relation is not further specified in the study. Following this line of argumentation, studies in the field provide empirical evidence indicating that potential donors are more influenced and inspired by the peer fundraiser than by the charity itself (Chapman et al., 2019; Hesse & Boenigk, 2023).

Despite the evident importance of the relationships between peer fundraiser and peer donor in fostering peer donations, it's remarkable how limited our understanding is of the influence of different strengths of relationships in this context. Knowing that peer donations come from a diversity of personal relationships, ranging from friends, family or work colleagues (Hessekiel, 2022; Scharf & Smith, 2016), there are very few works that tried to measure the strength and type of existing relations between peers and their effect on driving donations. We presume it to

be an interesting research avenue to account for the differences in donation behavior when being asked by either of these groups. Therefore, we draw on social discounting theory (Jones & Rachlin, 2006), a prominent theory within behavioral economics research that explores resource allocation dynamics in social contexts and seek to explain if and how peer donation behavior may be impacted by the strength of the relationship between peer fundraiser and peer donor. Social discounting, as a phenomenon related to altruistic generous behaviors, reflects the tendency of individuals to assign lower value to outcomes for socially distant individuals compared to those who are socially close (Jones, 2022). Existing empirical studies, including Locey & Buddiga (2022); List & Price (2009), and Osinski (2010), further support the idea that people are more inclined to help those they perceive as socially closer, establishing a strong link between social distance and the willingness to give or share resources.

Against this background, our research aims to address two critical gaps in the existing knowledge.

First, the current state of research reveals a notable gap concerning the strength of relationships between peer fundraiser and peer donors. While some studies have emphasized the importance of these relationships (Chapman et al., 2019; Hesse & Boenigk, 2023; Scharf & Smith, 2016; Smith et al., 2015), we believe Meer (2011) is the only study that takes the strength of peers' relation into account to determine if this could affect the effectiveness of peer fundraising. Thus, a crucial need remains for further exploration and theorizing around this finding to achieve a more comprehensive understanding on the important relationship aspect in peer-to-peer giving. Our study aims to address this gap by introducing the theory of social discounting (Jones & Rachlin, 2006) to this context. Specifically, we aim to enhance existing knowledge by examining how social discounting may affect donation behavior within peer-to-peer giving.

Second, we address the critical gap of lacking a clear definition regarding who qualifies as a peer within the context of peer-to-peer networks. Despite the widespread use of the term "peer" in different literature streams, a conceptual consensus and precise definition are notably absent. According to psychological literature, peers are defined as individuals who share the same values or experience similar life circumstances (Brown, 2004). However, in the context of peer-to-peer giving, a more nuanced understanding of 'peers' emerges. Here, the term extends beyond mere acquaintanceship to encompass individuals within one's immediate social network, including friends, family members, and colleagues. This issue is especially pertinent as it remains uncertain whether researchers' definitions align with participants' perceptions of peerness. Our

study confronts this definitional gap by directly engaging participants to discern who they consider a peer among various social networks, including family members, colleagues, fellow students, and loose acquaintances. Through this empirical investigation, we aim to establish a crowd-sourced, data-driven definition of who qualifies as a peer, particularly within the donation context.

In sum, our present work adds to the existing literature at least in three ways: First, this study adds another perspective to the existing body of research in consumer psychology, which traditionally focused on donation behavior within the nonprofit-donor dyad. Previous studies in consumer psychology literature have examined donation behavior in relation to the appeal methods used by nonprofit organizations to solicit donations (De Bruyn & Prokopec, 2013), the devices (e.g. smartphones) utilized for appeals (Hock et al., 2024), the presentation of donation choices (Ein-Gar et al., 2021; Winterich et al., 2015), and the donation behavior in cause-related marketing initiatives (Krishna, 2011), as well as in new donation scenarios such as “round-up donations” (Kelting et al., 2018). To the best of our knowledge the only study in consumer psychology focusing on peer-to-peer giving is the one by Sepehri et al. (2021), exploring how peer fundraisers should approach peer donors and demonstrate that peer donors perceive greater credibility in indirect appeals, thereby increasing donation behavior. Second, we enrich peer-to-peer giving literature by introducing the theoretical framework of social discounting, thus extending the knowledge on the often-mentioned but underexplored relationship between peer fundraiser and peer donor. Lastly, our study contributes to the social discounting literature by extending its application into a novel context. While social discounting has been studied in various altruistic contexts, its examination within the dynamics of peer-to-peer philanthropy is relatively unexplored. Finally, we provide a data-informed definition of who qualifies as a "peer", a concept that has not been yet clearly defined in the fundraising literature.

THEORETICAL BACKGROUND

Our study unfolds within the theoretical framework of the social discounting theory (Jones & Rachlin, 2006). The social discounting theory is a fundamental theory within behavioral economic research that explores resource allocation dynamics in social contexts. Social discounting refers to the tendency that the allocation of resources decreases as the social distance between individuals increases (Charlton et al., 2013; Jones, 2022; Stegall et al., 2019) described by a hyperbolic model. Most economic models face a significant hurdle in explaining why individuals choose to help others even at their own expense (Jones, 2022). These models often

fail to consider the impact of social relationships, which are complex to quantify precisely. To bridge this gap, Jones and Rachlin introduced the "social discounting task" (SDT) in 2006. The SDT provides a structured framework that enables participants to make decisions regarding the distribution of financial resources based on their perception of the social distance between themselves and potential recipients. Essentially, the concept of social distance serves as a psychophysical measure, quantifying the strength of the relationship between individuals (Jones, 2022).

Since 2006 numerous studies have employed social discounting in diverse contexts (e.g. Booysen et al., 2021; Charlton et al., 2013; Rachlin & Jones, 2008a, b; Locey & Buddiga, 2022), examining its applicability and robustness in understanding altruistic behavior. Initially, in a detailed experimental setting, Jones and Rachlin (2006) investigated whether participants would exhibit greater generosity towards individuals they felt closer to. The study revealed a decrease in the willingness of givers to share money as the social distance to the recipient increased, a pattern best captured by a hyperbolic function. This function suggests that as social distance increases, the hypothetical donation amount decreases rapidly initially but gradually levels off. This finding aligns with subsequent research by Rachlin and Jones (2008b), which confirms that the relationship between social distance and generosity is not necessarily linear. Instead, a hyperbolic relationship is often observed, where one variable initially changes rapidly but then stabilizes as the other variable increases or decreases (Charlton et al., 2013; Mazur, 1987). This pattern is illustrated in Figure 1 and underscores the complex dynamics of social distance and generosity.

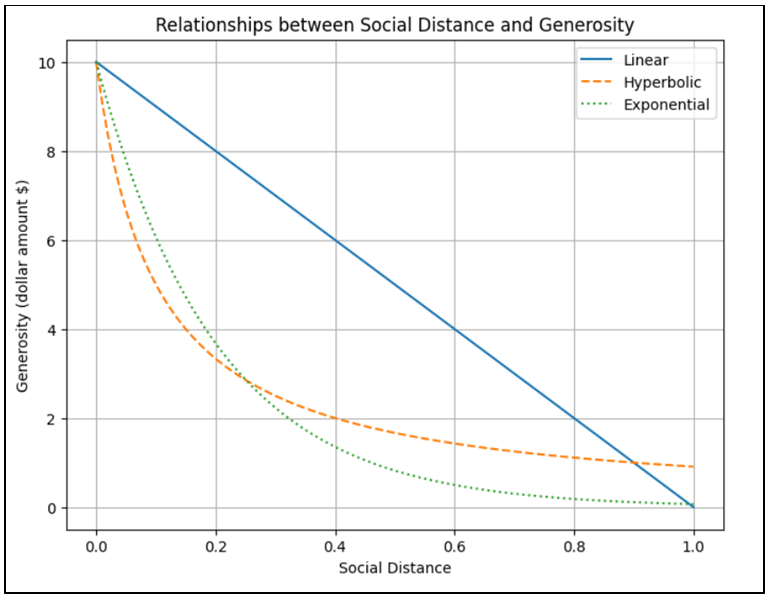

Figure 1. Relationships between Social Distance and Generosity.

Furthermore, another study by Rachlin and Jones (2008a) uncovered that even with consistent social distance, participants demonstrated a heightened readiness to give up money for the well-being of relatives in contrast to non-relatives. Similarly, Buddiga and Locey (2022) examined the impact of biological relationships on social discounting. By distinguishing between relatives and non-relatives, their research sought to illuminate the nuanced influences of biological relations on the dynamics of social discounting. Moreover, an expanding body of literature (Safin & Rachlin, 2020; Stegall et al., 2019; Ziegler & Tunney, 2012) has leveraged the concept of social discounting, exploring its implications in various decision-making contexts. For instance, a study by Ziegler and Tunney (2012) experimentally examined how social distance impacts the impulsiveness of decisions made on behalf of others. The results indicated that greater familiarity between individuals fostered increased empathy, thus enhancing concern for their well-being with participants being most concerned about their family and close friends. This finding aligns with the concept of relational altruism as demonstrated by Scharf & Smith (2016) in peer-to-peer contexts which suggests that peer donors donate because they care about the success (well-being) of the peer fundraiser. Ziegler and Tunney (2012) further demonstrated that the social discounting function applies equally to first-degree relatives and best friends, highlighting the consistent applicability of the phenomenon across different interpersonal relationships.

While several empirical studies support the notion that individuals are considerably more willing to share resources with those who are socially close compared to strangers (Booysen et al., 2021; Branas-Garza et al., 2010; Leider et al., 2009), exceptions exist within the literature. Vekaria et al. (2017) highlighted that extraordinary altruists, known for their remarkable acts of kindness towards strangers, deviate from the typical pattern of social discounting. Unlike the conventional tendency to assign lower value to outcomes for socially distant individuals (strangers) compared to socially close individuals (family or friends), extraordinary altruists discount the value of outcomes for socially distant individuals less than individuals not engaged in such acts of kindness. This indicates a heightened willingness to help strangers even when they are socially distant.

The theoretical framework of social discounting is deeply rooted in the altruistic nature of human behavior and incorporates the dynamics of interpersonal relationships (Locey & Buddiga, 2022). Given this foundation, we reasoned that the social discounting framework would be a suitable theoretical underpinning to examine the role of social distance between peers in shaping peer donation behavior. This framework allows us to explore how varying degrees of social proximity influence individuals' donation decisions in a peer-to-peer context.

Hypotheses

Building upon insights from both social discounting literature (Jones & Rachlin, 2006) and merging them with peer-to-peer fundraising research (Chapman et al., 2019; Hesse & Boenigk, 2023; Scharf & Smith, 2016; Sepehri et al., 2021), we propose that the social distance perceived by a peer donor regarding the peer fundraiser influences the donation behavior the donor shows towards the fundraiser. As the goal of peer fundraisers is to raise money on behalf of a nonprofit organization, we define this donation behavior in terms of money donation. In particular, we expect that the effectiveness of peer fundraising (i.e. the amount of donations that are given as a result of peer to peer interactions) is modulated by the social distance between the peer fundraiser and its peer donors: the larger the social distance the less the effectiveness. While comprehensive studies directly comparing various relationships between peer fundraiser and peer donor within a single study are lacking, initial indications in peer giving literature suggest potential differences in donation decisions based on the strength of relationships (Hesse & Boenigk, 2023; Meer, 2011). Besides the previously mentioned study of Meer (2011), an example of this can be observed when examining average donation amounts in peer-to-peer fundraising campaigns. Research conducted by Chapman et al. (2019) reveals that in private settings involving friends and family, the average donation amounts tend to be higher (M2013 = A$981.46) compared to settings where peer fundraisers have more loosely connected networks, as suggested by the findings from Hesse & Boenigk (2023), where the average donation tends to be lower (USD 250.06). These observations hint at a possible correlation between stronger connections and more successful fundraising outcomes.

Therefore, based on the knowledge from social discounting theory and the literature reviewed, we hypothesize that

H0: There is no effect of social discounting on peer-to-peer donations.

H1: There is an effect of social discounting on peer-to-peer donations: the closer the peer, the higher the donation.

Notably, as the existing literature revealed that social discounting follows a hyperbolic pattern, both in the social and the temporal domains, we expect a similar relation between the closeness between peers and its effect on donations. Grounded in social discounting theory (Jones & Rachlin, 2006), we further propose that the relationship between social distance and donation behavior follows a hyperbolic pattern. Specifically, we expect that as social distance increases, the decrease in donation amounts will initially be steep, reflecting a rapid decline in donation amounts. However, as social distance further increases, we expect the decrease in donation

amounts to taper off, indicating a leveling out of donation amounts. This hyperbolic pattern suggests that less distant social connections (like family and friends) will exhibit higher levels of donation behavior, while more distant connections (for example work colleagues) will show diminishing levels of giving. This is denoted by the following equation by Jones & Rachlin (2006): where v is the discounted value and V is the undiscounted value, N is a measure of social distance, and s is a constant measuring degree of social discounting.

$$Eq.1\ v = \frac{v}{(1 + sN)}$$

In essence, this formula asserts that as social distance N increases, the denominator (1+sN) becomes larger, thereby reducing the perceived value v.

MATERIALS & METHODS

Research design and Procedure Data Collection

To examine the effect of social discounting on individual peer-to-peer giving, we implemented an online survey experiment on Lioness utilizing a within-subjects design with six conditions. Every participant was exposed to six donation scenarios where different groups of peers (family, friends, friends' friend, co-worker, celebrity, stranger) asked them to donate for the same cause. Research question, hypothesis and analysis reported were preregistered on Open Science Framework before the data collection (Access to OSF preregistration: https://osf.io/4s23d/?view_only=914c4bf3e26a48e69621d1acdf17a097).

Data collection took place in June 2023. Figure 2 displays a visual representation of the experimental procedure. After giving consent, participants were instructed to minimize distractions such as smartphones throughout the experiment. They then engaged in a series of tasks aimed at exploring their perceptions and definitions of "peers". Firstly, participants were prompted to articulate a concise definition of the term "peer" and to specify where they typically meet individuals they consider peers. Additionally, participants identified the minimum requirements they deem necessary for someone to qualify as a peer and rated the importance of various predefined characteristics, such as shared hobbies, moral values, and socio-economic status, on a 7-point Likert scale.

Subsequently, participants evaluated six categories of potential peers, including family, friends, classmates, colleagues, friends of a friend, celebrities and strangers. Using a scale ranging from 0 to 100, participants rated the degree to which they perceived individuals within each category

as peers. To personalize the study further, participants were instructed to provide the first names or aliases of their chosen peers within each category, with the option to indicate the absence of a suitable peer if applicable.

Prior to the main experimental tasks, we administered a lottery. The use of lottery in experiments is a common method of imitating real-life scenarios and creating stronger incentives for participants to behave in a way that reflects their actual preferences or decision-making processes (Charness et al., 2016). In our study, the purpose of the lottery was to simulate a realistic behavioral situation, wherein participants potentially spent the dollar they could also win. By integrating the lottery with the subsequent donation task, participants were prompted to weigh the value of their donations against the prospect of winning a prize, mirroring decision-making scenarios encountered in genuine donation contexts. Participants were informed that their potential winnings depended on their donation decisions, with the specific amount they chose to donate deducted from a £10 prize pool, and the remaining balance awarded to them. Importantly, the donated amount would go directly to a pre-selected charitable organization, Save the Children. We chose Save the Children as the beneficiary of donations in our experiment as it is a reputable nonprofit organization with a history of transparency and accountability (www.savethechildren.org). Given the uncertainty of which decision would be implemented, participants were advised to treat each donation decision as if it were the selected one in order to maximize the probability of achieving their desired outcome. We controlled for participants' prior donation history to Save the Children and their perception of the organization. This served to mitigate potential confounding variables associated with participants' familiarity or opinions regarding the charity.

Following the lottery instruction, participants were presented with a total of six donation scenarios presented in a randomized order, which allowed us to minimize potential effects linked to the order of presentation (Carlsson et al., 2012). Each scenario featured a different peer category (family member, close friend, workmate | classmate, friend's friend, celebrity, stranger) soliciting a donation for their peer-to-peer campaign for Save the Children. Within each task, participants were required to allocate funds from a £10 pool between personal retention and donation to the peer. This allocation decision was made independently by participants for each scenario, reflecting their individual preferences and attitudes towards each solicitation. To enhance personalization and engagement, the names provided by participants earlier for each peer category were seamlessly integrated into each scenario. For example, a scenario might read, "Mia, your family member, asks you to donate to the Save the Children campaign", ensuring that participants felt a connection to the soliciting peer in each scenario.

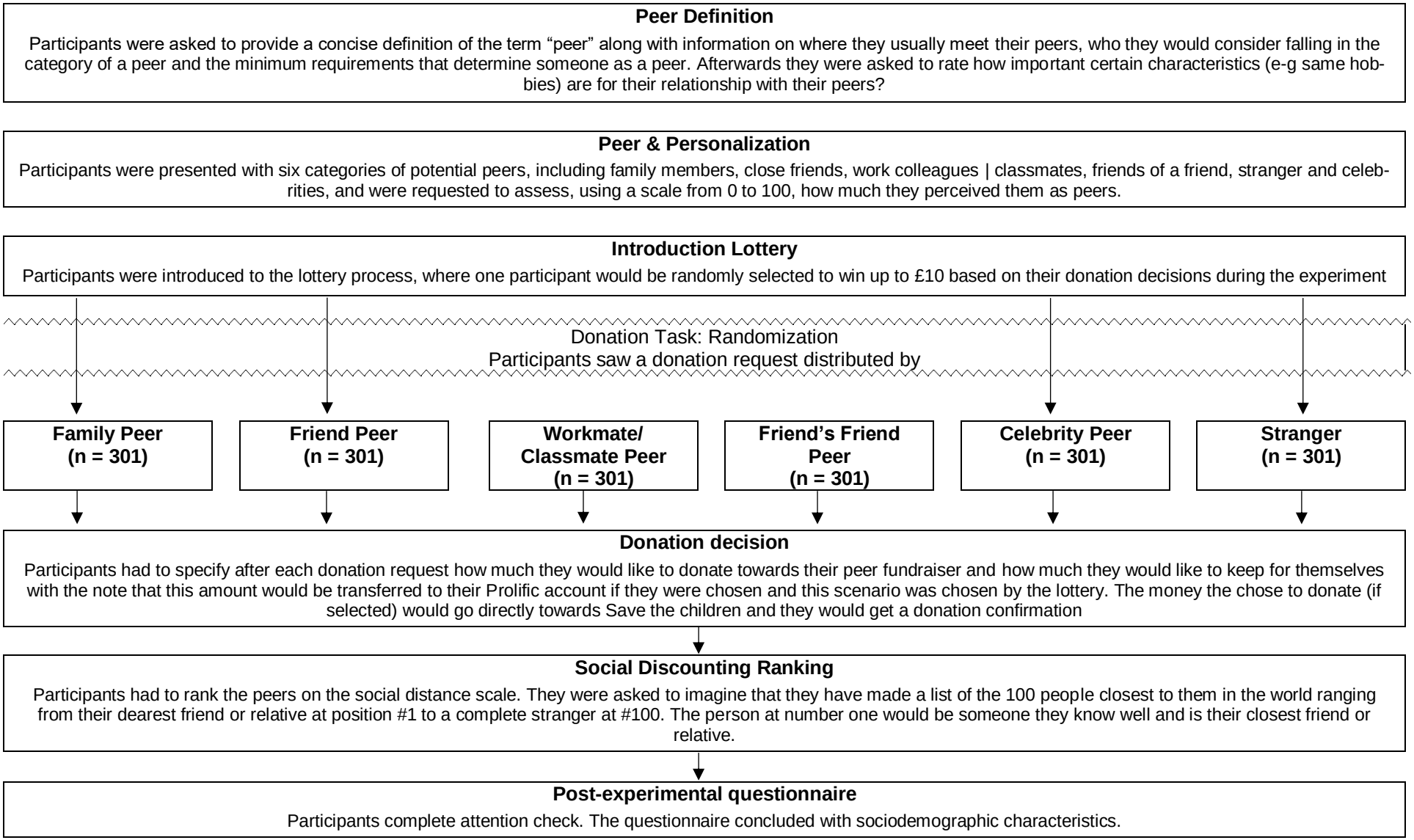

Figure 2. Overview of the Experimental Steps.

Upon completing the donation task, participants were asked to rate the perceived social distance (independent variable), utilizing an adapted scale from the works of Rachlin & Jones (2006). Finally, participants were requested to provide information about their socio-demographic background and past donation behavior for further analysis.

Participants

Study participants were recruited through the online panel provider Prolific (www.prolific.com), ensuring a representative sample that included individuals in the UK over the age of 18. All participants were fairly compensated for their participation (9£ per hour equal to 1.5£ for 10-15 minutes task). The final sample consists of 301 participants who completed the survey and passed an attention check at the end which inquired about which organization the money would be donated to. Our rationale for the sample size was preregistered as two-fold. Firstly, the lowest sample for representative sample on Prolific is 300. Secondly, we used the software program G*Power to conduct a power analysis. With our chosen sample size, we have a high likelihood (93%) of detecting an effect size (f2) of 0.05, which falls within the range of small to medium effect sizes (0.02-0.15).

Table 1 presents the sample characteristics. Among the participants, 51.8% identified as female. The average age of participants was 46.00 years (SD = 15.20). Regarding employment status, 52.5% reported being full-time employed, and 56.5% indicated having at least one child. Additionally. 71.4% of participants stated donating to a nonprofit organization within the last year, with an average donation amount of 130 Pounds. We conducted cross-validation of self-reported demographic data provided by participants with information obtained from the panel provider on gender and age, whenever possible. Cross-validation has demonstrated good correspondence.

Table 1. Sample Characteristics.

Variable	**N = 301**		**Variable**	**N = 301**
	N (%)			N (%)
Gender			**Age**	Mean 46.10 (15.20)
female	154 (51.2		**Children**	
male	147 (48.8)		No child	131 (43.5)
divers	-		One child	50 (16.6)
Employment status			Two child	75 (24.9)
Employed full-time	158 (52.5)		More than two	45 (15.0)
Employed part-time	46 (15.3)		**Income**	
Student/Trainee Other	12 (4.0) 85 (28.2)		< 5.000	158 (52.5)
Education			5,500 - 4,999	37 (12.3)
Less than high school	4 (1.3)		10,000 - 19,999	57 (18.9)
High School Degree	73 (24.3)		20,00 – 29,999	77 (25.6)
Associate Degree	15 (5.0)		30,000 - 39,999	44 (14.6)
Bachelor Degree	129 (42.9)		40,000 - 49,999	27 (9.0)
Master Degree	40 (13.3)		50,000 - 59,999	11 (3.7)
Trade/Technical training	40 (13.3)		60,000 +	23 (7.6)
Donation behavior frequency in the past	Median 3.00		**Donation Behavior in amount in the past**	Median 40.00
0 times	86 (28.6)		0 Pound	85 (28.1)
1 time	23 (7.6)		1-10 Pound	25 (8.3)
2-3 times	58 (19.3)		11-50 Pund	76 (25.3)
4-5 times	51 (16.9)		51-100 Pound	37 (12.3)
6-10 times	19 (6.3)		101-250 Pound	41 (13.6)
11-20 times	50 (16.5)		251-500 Pound	23 (7.7)
More than 20 times	14 (4.7)		More than 500	13 (4.3)
Missing	-		Missing	1 (0.3)

Measurement & Statistical Analyses

Dependent Variable. The study's dependent variable is the *donation amount* allocated by participants towards the peer fundraiser, which represents a continuous variable ranging from 0 to 10 pounds. Specifically, for each scenario participants were asked to indicate the amount they would choose to donate to the peer's fundraising campaign out of £10 – the amount that they decided not to donate was kept for themselves. This variable reflects the participants' decisions on how to allocate the £10 between personal retention and donation to the peer fundraiser. Note that participants were informed that only one decision would be implemented after being selected at random via the lottery (see methods – and Charness et al., 2016).

Social distance. The independent variable is the perceived *social distance* between the participant with each of the six peers asking them for donation. To measure the perceived social distance, we applied the social distance scale introduced by Rachlin & Jones (2006), asking participant to mentally construct a hypothetical list of individuals ranging from their closest friend or relative at position #1 to an unfamiliar person at #100. Subsequently, participants assessed the social distance between them and the peers they have chosen for each of the six categories by indicating the imagined position on the scale for individuals within those categories.

Peer category assessment. Participants were asked to evaluate six distinct categories representing potential groups of peers, which included family members, close friends, work colleagues, classmates, friends of friends, strangers, and celebrities. Using a scale ranging from 0 to 100, participants were requested to indicate the degree to which they perceived each category aligning with the concept of a peer, with 0 representing "less than a peer," 50 indicating "peer," and 100 representing "more than a peer."

Table 2 presents the descriptive statistics related to these measures.

Table 2. Descriptives.

	Mean	**SD**	**SEM**	**Min-Max**
Donation behavior (Pound)				
Family	4.65	3.17	0.18	1-10
Close friends	4.06	2.82	0.16	1-10
Work colleague | Classmate	3.18	3.18	0.14	1-10
Friend of a friend	2.55	2.46	0.14	1-10
Celebrity	1.72	2.29	0.13	1-10
Complete Stranger	1.63	2.58	0.12	1-10
Social Distance (1 = feeling closest)				
Family	14.47	29.93	1.72	1-100
Close friends	20.91	27.83	1.59	1-100
Work colleague | Classmate	39.39	29.37	1.68	1-100
Friend of a friend	55.04	30.33	1.73	1-100
Celebrity	77.00	31.34	1.80	1-100
Complete Stranger	86.77	29.83	1.71	1-100
Peer Category (1 less than a peer, 50 = peer, 100 = more than peer)				
Family	64.54	33.94	1.95	1-100
Close friends	79.26	21.61	1.24	1-100
Work colleague | Classmate	66.07	20.10	1.15	1-100
Friend of a friend	43.16	21.61	1.24	1-100
Celebrity	23.31	22.25	1.28	1-100
Complete Stranger	12.14	19.31	1.11	1-100

Statistical Data Analysis

The data analysis was two-fold: Firstly, in line with our primary aim, we conducted a quantitative analysis to explore the potential role of social discounting in explaining peer donations. This analysis involved employing ANOVA and linear mixed-effect regression models to test whether social discounting impacts peer-to-peer donations, and whether the relationship is linear or non-linear. The statistical analysis was conducted using the lme4 package in R (version 1.1-26, Bates et al., 2014). Secondly, to establish a crowd-sourced, data-driven definition of who qualifies as a peer, we employed a two-step approach to systematically analyze open-ended comments related to peer definitions. Initially, we manually coded the open-answers regarding peer categories, meeting environments, and minimum requirements and categorized them accordingly. Subsequently, leveraging unsupervised text analysis in Python, we examined prevalent word patterns within participants responses and develop a "bottom-up" characterization of what defines peer in our sample.

RESULTS

The bean plot in figure 3 visualizes participants' ratings of social distance towards the selected person in each pre-defined peer category (family, friend, classmate, friend of a friend, celebrity, stranger) on a scale from 0 (closest to you) to 100 (complete stranger).

We find that participants reported the smallest social distance for the peer category family (14.47, SEM = 1.72, SD = 29.93), followed by friends (20.91, SEM = 1.59, SD = 27.75), classmates or co-workers (39.39, SEM = 1.58, SD = 29.27), friend of a friend (55.04, SEM = 1.74, SD = 30.33), celebrity (77.00, SEM = 1.80, SD = 31.34) and with the largest distance being reported for the category stranger (86.77, SEM = 1.71, SD = 29.83). Moreover, the within subject ANOVA demonstrated a statistically significant effect of the social distance variable across the diverse peer categories ($F(1, 1817) = 296.2$, $p < 0.001$). Thus, a first finding suggest that the category of peers significantly differ in terms of the perceived social distance.

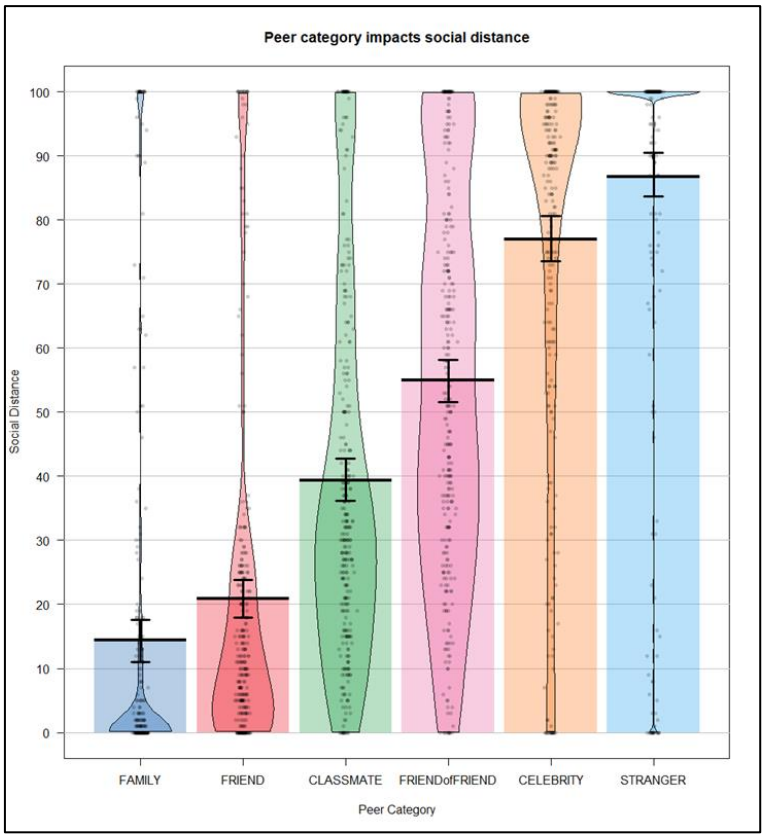

Figure 3. Social distance between different peer categories. Dots represents individual raw data, error bars represent S.E.M., the beanplot represents density, and bar the mean.

In light of our hypothesis we examined if the social distance between a peer fundraiser and their peer donors influences donation amounts. We hypothesized that greater social distance would lead to a decrease in the amount of peer donations. We analyzed our data using the preregistered comparison of two regression models. We aimed to statistically assess the impact of social distance on donations, while controlling for factors such as previous donation behavior, gender, and other variables that might influence the donation amount and reaction times. For this purpose, we applied a linear mixed-effects regression model, employing the lme4 package in R (version 1.1-26, Bates et al., 2014). Initially, we estimated a baseline model (m0), which included random intercepts for individuals and accounted for dependencies from the repeated measurement design:

$$m0: donation \sim 1 + (1|Subject)$$

We then compared this baseline model to an extended model (m1), which added social distance as a fixed effect.

$$m1: donation \sim socialDistance + (1|Subject)$$

To evaluate the models performance, we utilized the Bayesian Information Criterion (BIC). Differences in BIC (ΔBIC) were used to calculate Bayes Factors (BFs) as BF = exp(ΔBIC/2), providing an intuitive measure of model comparison (Wagenmakers, 2007).

The comparison revealed that model m1 better explained the donation data compared to the baseline model (m0), indicating that social distance has a negative significant effect on donations: the higher the distance the smaller the donations from peer donors to their peer fundraiser. As detailed in Table 3, the ΔBIC was 479.5, translating into a BF of approximately 1.324653e+104, suggesting extremely strong evidence that social distance significantly affects donations. Thus, it confirms our hypothesis that a closer social connection is related to higher donation amount spent by the peer donor. The same conclusions were supported by additional metrics such as log likelihood, R-squared, and the Akaike Information Criterion (AIC).

Table 3. Model fit of preregistered regressions models.

Model	**AIC**	**BIC**	**logLik**	**Deviance**	**Chisq**	**Pr(YChisq)**
m0	8246.6	8263.1	-4120.3	8240.6		
m1	7761.6	7783.6	-3876.8	7753.6	486.96	< 2.2e-16 ***

Note. We used the Bayesian information criterion (BIC) as a model selection criterion, which takes model complexity into account. Numbers in bold represent the model with lowest BIC value and therefore best predictive accuracy in each study. AIC = Akaike information criterion, logLik is logarithmic likelihood.

To give a more nuanced picture, the bean plot in Figure 4 illustrates that donations are highest among the closest social categories—family (4.64, SEM = 0.182, SD = 3.18), followed by friends (4.06, SEM = 0.162, SD = 2.82), classmates or coworkers (3.18, SEM = 0.149, SD = 2.59), friends of friends (2.54, SEM = 0.141, SD = 2.46), with the lowest donations from celebrities (1.72, SEM = 0.132, SD = 2.30) and strangers (1.63, SEM = 0.121, SD = 2.12). Surprisingly, the donation amount donated towards a celebrity did not significantly differ from that towards a stranger, a point we will discuss further.

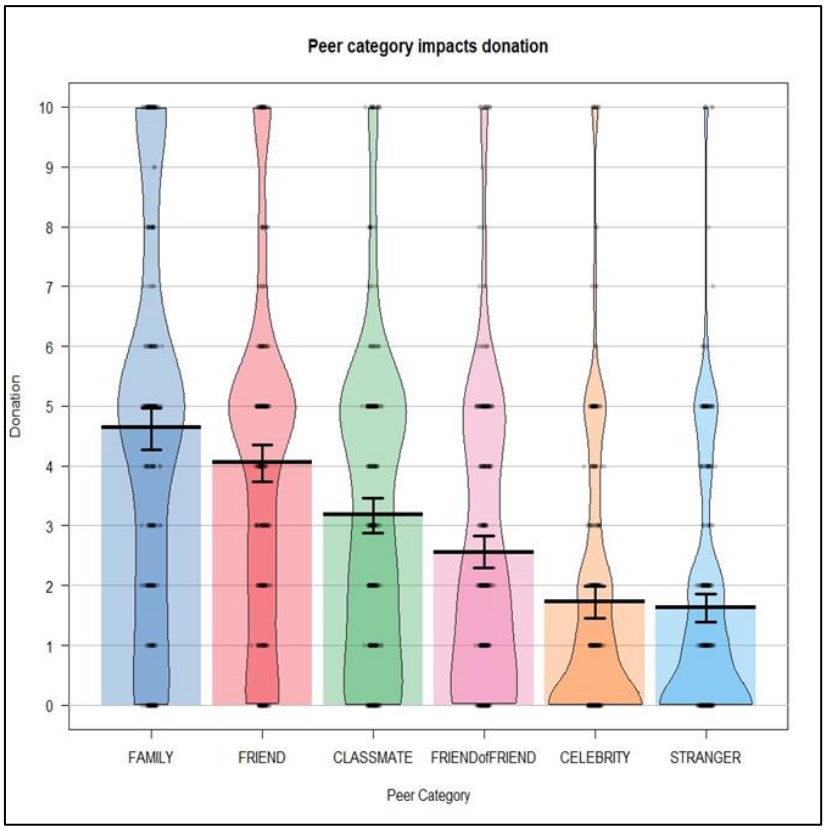

Figure 4. Donations between different peer categories. Dots represents individual raw data, error bars represent SEM, bean plot represents density, and bar the mean.

Exploratory Analysis

Owning to the discussion on the nature of the relationship in social discounting literature (Jones & Rachlin, 2006; Rachlin & Jones, 2008 a, b), we further investigated in an exploratory analysis the relationship between social distance and donation amounts using various linear and non-linear regression models. The primary aim was to identify the model that best captures the complexity of this relationship as discussed previously (linear, inverse, quadratic, hyperbolic, or polynomial).

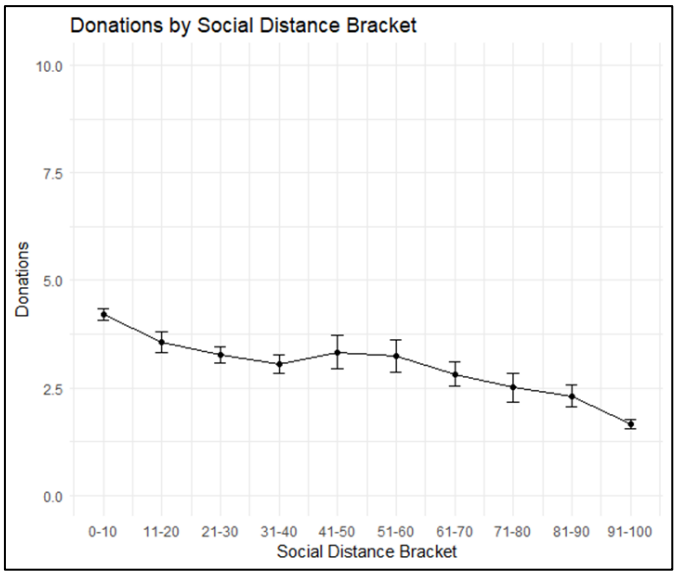

Figure 5.1. Donations by social brackets.

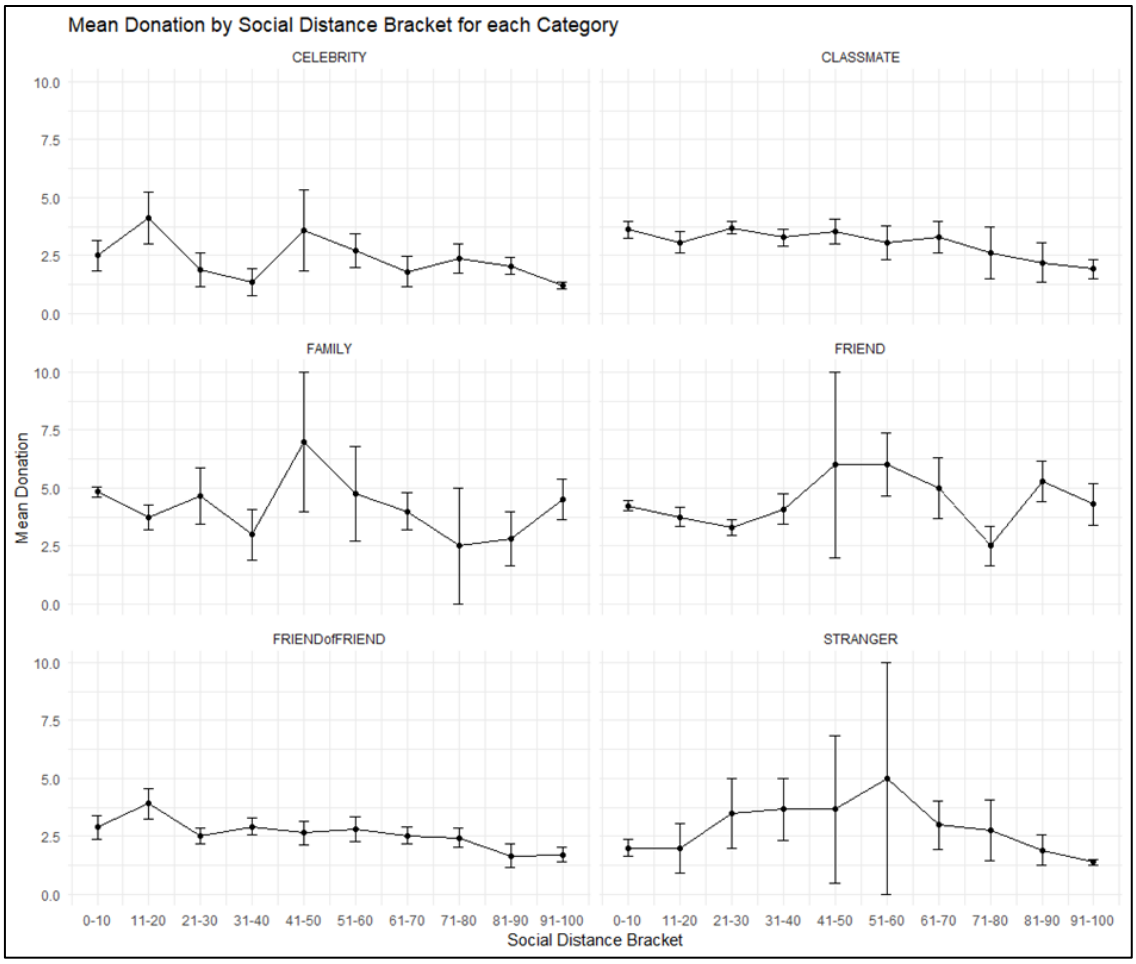

Figure 5.2 Donations across different social distance brackets. The mean amount of donation at each social distance bracket, while error bars represent SEM across different categories (upper), and for each peer-category (lower).

Since donations are right-skewed, we transformed the donation amount using a logarithmic transformation. Model 1 (m1) represented a baseline model with only an intercept, serving as a reference point. Model 2 (m2) introduced *social distance* as a linear predictor, Model 3 (m3) combined social distance in its linear form and its logarithm transformation to capture a non-linear relationship, Model 4 (m4) examined *social distance* and its hyperbolic transformation, exploring a non-linear decreasing effect of social distance, Model 5 (m5) considered *social distance* and the inverse of its logarithm, another form of non-linear relationship. Model 6 (m6) was a best fitting model according to BIC, a quadratic model, incorporated *social distance* as a second-degree polynomial, suggesting a more complex, possibly curvilinear relationship. Model 7 (m7) extended this to a third-degree polynomial, capturing more nuanced variations, and Model 8 (m8) focused solely on the hyperbolic relationship with *social distance*. Table 4 presents an overview of the models and their corresponding Bayesian Information Criterion (BIC) which takes into account both, model complexity and overfitting and Akaike Information Criterion (AIC) values.

Table 4. Comprehensive overview of the different linear regression models.

Model	**Specification**	**Description**		**AIC**	**BIC**
m1	lm(log(donation amount+ 0.001) ~ 1)	Baseline model with only an intercept.		9900.483	9911.500
m2	lm(log(donation amount + 0.001) ~ social distance)	Linear model with social distance as a predictor.		9690.190	9706.716
m3	lm(log(donation amount + 0.001) ~ social distance + log(social distance + 0.001))	social distance and its log transformation as predictors		9685.207	9707.242
m4	lm(log(donation amount + 0.001) ~ social distance + I(1/(social distance + 0.001)))	social distance and its hyperbolic reciprocal as predictors.		9686.949	9708.984
m5	lm(log(donation amount + 0.001) ~ social distance + I(1/log(social distance + 0.001)))	social distance and inverse of its log transformation as predictors.		9692.048	9714.083
m6	lm(log(donation amount + 0.001) ~ poly(social distance + 0.001,2))	Quadratic model with social distance as a second-degree polynomial.		9670.476	9692.511

Model	Specification	Description		AIC	BIC
m7	lm(log(donation amount + 0.001) ~ poly(social distance + 0.001,3))	Third-degree polynomial model with social distance		9669.893	9697.437
m8	lm(log(donation amount + 0.001) ~ I(1 / (social distance + 0.001)))	Hyperbolic model with the reciprocal of social distance.		9870.357	9886.883

Note. Comprehensive overview of the different regression models used in the analysis, along with their goodness-of-fit metrics (AIC and BIC), facilitating a comparison of their relative effectiveness in explaining the relationship between social distance and donations.

The BIC and AIC values for these models indicated the relative quality of each model. Lower values suggest a better model fit when considering the number of parameters. The quadratic model (m6) showed the lowest BIC (which penalizes for model complexity and overfitting), indicating a particularly effective balance between model complexity and fit. This suggests that the relationship between social distance and donations may indeed be non-linear, with the quadratic model capturing the essence of this relationship most effectively.

Each model brings a unique perspective to understanding how social distance influences donation behavior, with the polynomial and hyperbolic models providing particularly insightful views into the non-linear nature of the relationship peer social distance and the impact of fundraising appeals on peer donations: peer fundraisers are more effectively engaging peers within a closer sphere of social range, while this effect rapidly fades off as social distance increases. Given the growing importance of individual contributions to sustain charitable organizations, our findings recommend that such organizations prioritize peer-to-peer fundraising efforts among closest peers, like family members and friends, who are likely to donate more generously.

Qualitative Results

Qualitative. The second aim of this paper, was to provide a definition of a "peer" using a data-driven approach, i.e. asking our participants to provide their own definition of who they consider a peer. More in detail, in order to establish a data-driven definition of peers, our study adopted a two-step approach for the analysis of participants open-ended responses. This approach aimed to extract nuanced insights from the textual data and categorize them systematically, ensuring a comprehensive understanding of the criteria defining peers. The first step involved presenting the textual data to the research team, who manually assigned categorical codes or labels to each participant comment. This process allowed for the identification of key themes, ensuring a detailed categorization of open-ended responses. To enhance the reliability

of the coding process, two researchers independently coded the data, promoting intercoder reliability. The direct agreement between two coders demonstrated satisfactory values of over 90%. The results of this coding process are presented in Tables 5, 6, and 7, providing descriptive statistics and insights into participants' perspectives on peer classification, meeting patterns, and minimum criteria for considering others as peers. The percentages in these tables do not sum up to 100%, reflecting the participants' tendency to mention multiple categories in their answers, thereby offering a nuanced understanding of their views on peers and social interactions.

Table 5 reveals the diverse open answers of participants when asked who they considered as peers, with participants mentioning colleagues (59.5%), friends (43.2%), classmates (21.0%), among others. Notably, "those in the same life situation" (16.0%) suggests broad inclusivity in peer relationships not being limited to certain groups.

Table 5. Who do you consider a peer?

Category	**N (%)**
Friend	130 (43.2)
Colleague (Workmates/ people from work, job)	179 (59.5)
Classmates (School, University, college, students)	63 (21.0)
Same Life situation (Age, Hobby, Status)	48 (16.0)
Family (Relatives, brother, sister)	25 (8.3)
Acquaintance	10 (3.3)
Team(sport) member	6 (2.0)
Teacher	6 (2.0)
Flamate/Neighbour	2 (0.6)
Anyone	16 (5.3)
Other	10 (3.3)

Table 6 shows that participants primarily meet peers in work-related contexts (73.42%), followed by education (29.6%) and social settings (32.2%), indicating that shared experiences shape peer relationships across various life domains especially work.

Table 6. How do you typically meet peers?

	Category	Thematic summary of responses	N (%)
1	**Work-related**	Respondents mentioned meeting peers in their work environment or through work-related activities, such as meetings, emails, networking events, or team projects	221 (73.42)
2	**Education-related**	Respondents mentioned meeting peers in educational institutions including classes, school gates, university events, group projects, and extracurricular activities.	89 (29.6)
3	**Social Settings**	Respondents mention meeting peers through social events, social gatherings in bars, pubs, clubs, restaurants, parties, and community activities, sport, or parent and toddler classes.	97 (32.2)
4	**Hobby-related**	Respondents mention meeting peers through shared hobbies, interests, or activities, such as hobby groups, sports clubs, running clubs, attending events, participating in group activities, or engaging in community or group projects.	30 (10.0)
5	**Family, Friends Connection**	Respondents mention meeting peers through friends or family connections, family events, family gatherings,	16 (5.3)
6	**Online**	Respondents mention meeting peers through online platforms, online studies, social media, online conferences, or online social networks.	10 (3.3)
7	**Everyday Life**	Respondents mention meeting peers in everyday life situations, such as shops, restaurants, gyms, parks, walking the dog, walking the children to school, or random encounters while out	17 (5.6)
8	**Neighbour**	Respondents mention meeting peers within *the local neighborhood or through interactions with neighbors.*	7 (2.3)
9	**Anywhere**	*Anywhere*	15 (5.0)
10	**Missing**	*Answer could not be used*	7 (2.3)

Table 7 highlights key criteria mentioned by participants for considering others as peers, including similar values/mindset (28.5%), age (24.9%), and social background/class (22.6%), reflecting the importance of shared social characteristics and interactions in defining peer relationships. Interestingly, 6.0% of respondents mentioned that anyone could be considered a peer, indicating a flexible and inclusive perspective on peerness beyond the social network suggesting that individuals may adopt different perspectives on who qualifies as a peer. Overall, these

statistics provide insights into the diverse nature of peer relationships and the criteria used by individuals to define peers.

Table 7. What are the minimum requirements that you need to see in others to require them peers?

	Category	Thematic summary of responses	N (%)
1	**Similar values/mindset**	Respondents mentioned having similar values, moral beliefs	86 (28.5)
2	**Similar age**	Respondents mentioned that being of a similar age is an important characteristic to considering someone as a peer	75 (24.9)
3	**Similar social background /class**	Respondents mentioned having a similar social background, coming from the same social class	68 (22.6)
4	**Similar profession**	Respondents mentioned working in the same profession, having similar knowledge, or the same skillsets in terms of work	55 (18.2)
5	**Shared interests**	Respondents mentioned sharing common interests or hobbies	51 (16.9)
6	**Similar experience/lifestage**	Respondents mentioned having shared experiences or being in a similar life stage (e.g., single, married, parent) was seen as a basis for identifying peers.	34 (11.3)
7	**Similar education/qualification**	Respondents mentioned have achieved a similar education level or possess similar qualifications.	27 (8.9)
8	**Regular Interactions**	Respondents mentioned regular communication or frequent encounters with someone as criteria for considering them a peer.	27 (8.9)
9	**Similar goals aspiration**	Respondents mentioned sharing common goals or aspirations in life or work as important	14 (4.7)
10	**Anyone**	Respondents mention they don't have requirements, it can be anyone	18 (6.0)

To further refine our data-driven definition, we assessed the average scores of various characteristics regarding their importance for peer relationships. Moral values emerged as the most crucial factor, receiving the highest average score of 5.69 on a scale from 1 to 7. This highlights the significance of shared ethical principles and beliefs in defining someone as a peer. Shared professional interests and age closely followed with averages of 4.37 and 4.28, respectively. In

contrast, taste in music and sports interest appeared to be comparatively less significant, with average scores close to 3.0. These findings underscore the importance of certain shared characteristics in shaping peer connections while indicating variations in the significance of others.

Python-based.

Subsequently, in order to conduct a robust, data-driven quantitative analysis of the participants' definitions of peers, we utilized the capabilities of the Python programming language. This approach allowed us to process the survey data effectively and extract meaningful insights. The survey data, encompassing participants' open-ended responses on peer definitions, was imported into Python. As a foundational step, the textual data was standardized by converting it to lowercase, ensuring consistency in subsequent analyses. Utilizing the NLTK library in Python, we tokenized the text and filtered out common stopwords and punctuation, thus prioritizing essential words for the analysis. Further, we employed lemmatization, a prevalent natural language processing technique that reduced words to their root or dictionary form. For example, the words "running" and "ran" would both be converted to the base form "run" during lemmatization. In the analysis phase, we systematically counted the occurrence of each word, enabling the identification of the most frequently used words of the participants to describe a peer. Subsequently, we focused on the top ten words based on their occurrence frequencies, thus prioritizing the most pivotal terms for in-depth scrutiny (see Table 8).

Table 8. Word Occurrence in Peer Definition.

Word	Occurrence in definition	Word	Occurrence in definition
someone*:	211	Level	51
Similar	112	friend	46
Peer*	81	Equal	41
Work	79	Person	40
age	78	Social	37

*Note. *we regard "someone" and "peer" as fill words, unrelated to the definition of a peer*

The culmination of the manual coding and the python-based analysis yielded a data-driven definition of a peer based on participants' responses: *"A peer is an individual who exhibits similarity in age, social standing, educational background, professional status, interests, or shared experiences, and shares common interests, hobbies, and experiences. Peers engage in regular*

interactions within the working environment, such as colleagues, and in social settings, including friends and acquaintances."

DISCUSSION

Recently, there has been a growing interest among researchers and practitioners in the peer-to-peer fundraising model which is regarded as valuable instrument for stimulating co-creation and interactions among peers. While previous studies have underscored the importance of interpersonal relationships in this model (Chapman et al., 2019; Hesse & Boenigk, 2023), they haven often overlooked the varying degrees of closeness or distances within these relationships and their influence. Building upon this understanding and integrating insights from donor behavior literature (Ein-Gar et al., 2021; Meer et al., 2011) and social discounting literature (Jones & Rachlin, 2006), the main aim was to contribute to theory-building within this context by examining how social discounting may impact donation behavior within peer-to-peer giving. To achieve this, we considered various categories of peers typically involved in peer-to-peer fundraising, such as family members or work colleagues, and investigated the perceived social distance and donation behavior towards each of these peers. Additionally, this study establishes a crowdsourced, data-driven definition of who qualifies as a "peer". Thus, our research contributes to the literature on donor behavior in peer-to-peer models in several ways.

First, our experiment provides empirical evidence of how social distance, as perceived by the peer donor, influences the donation behavior within peer-to-peer fundraising networks. The finding suggests that peer donors donate more towards peer fundraiser they perceive as socially closer, compared to those they view as more distant. According to Ziegler & Tunney (2012), this phenomenon can be explained by the heightened concern for the well-being and increased empathy individuals typically have towards those they perceive as socially closer to them. Notably, this effect is particularly pronounced in relationship with family and close friends, which peers tend to perceive as less distant compared to work colleagues or peer celebrities, aligning with previous research (Charlton et al., 2013; Buddiga & Locey, 2022). . By confirming our hypothesis, we contribute to bridging a gap in theorizing about peer-driven donations, aligning our findings with the theoretical underpinnings of social distance and social discounting as proposed by Rachlin & Jones (2008a,b).

Second, our study further offers insights into the nuanced relationship of social distance and donation behavior. Our results suggest a non-linear relationship between donation and social distance, indicating that the impact of social distance on the donation levels is not consistent

but varies across different levels of social distance. As discussion in social discounting literature evolves around assessing the function that captures best the relationship between social distance and altruistic behavior, we perform exploratory analysis into possible relationships between social distance and peer donations. The model function that best captures this relationship is a non-linear, quadratic model, which incorporates social distance as a second-degree polynomial. This suggests a more complex, possibly curvilinear relationship between social distance and donation behavior, challenging previous findings in social discounting theory that favored hyperbolic functions (Jones & Rachlin, 2006). Our findings emphasize the complex link between social distance and donation behavior in peer fundraising, highlighting the need to consider non-linear dynamics in understanding donation decisions.

Third, our finding on the limited donation behavior towards the group of peer celebrities in particular warrants further discussion, particularly given the widespread phenomenon of celebrity philanthropy (Ilicic & Baxter, 2014; Yang et al., 2019) Surprisingly, celebrities did not elicit significantly greater donation behavior compared to strangers, despite being perceived as socially closer. This challenges expectations from literature on celebrity philanthropy or influencer marketing (Rice et al., 2012), which suggest celebrity endorses as effective in driving higher donations (Elberse & Verleun, 2012; Thomas & Fowler, 2015). Our findings suggest that although individuals may feel a sense of familiarity or connection with celebrities due to their public presence (Bennett, 2013), this perceived social closeness may not translate into the same level of social exchange or personal relationship experienced with peers, friends, or family members. This nuanced understanding is captured by the non-linear relationship we identified between peer social distance and its impact on donations. Another potential explanation from social discounting literature is that social discounting typically involves considerations of reciprocal relationships and shared experiences, elements potentially lacking in interactions with celebrities and therefore not translating into behavior (Buddiga & Locey, 2022). This also reflects in our finding that celebrities are considered less than peers. Future research should explore relationship categories that are perceived as more distant, as this holds significant promise for advancing our understanding on influencer marketing

Lastly, our study aimed to propose a data-inspired definition of the concept of "peer", relying on a crowd-sourced opinion. While traditionally, the term has been applied across various contexts, typically referring to individuals with shared characteristics or belonging to the same social group (Brown, 2004; Chaplin & Roedder John, 2010), existing studies have not provided a validation of how individuals perceive this term and who among their social network belongs to the group of peers with no clear boundaries on who would be socially closer (or vice-versa

socially too distant) to be considered a peer. For example, in the context of peer-to-peer fundraising, the term encompasses all individuals, including family members and close friends. Our crowdsourced data revealed a prevalence of participants associating peers with work colleagues. This is also reflected in the quantitative ratings of peer categories, with work colleagues being rated right at the middle of the peer continuum. We also identified the inner bounds of peer, with our participating indicating that family members are seen as being socially closer to the than someone they would consider a peer. Furthermore, we identified an outer bound, with celebrities and strangers being perceived as less than peers. Based on our findings, we propose the following definition: *"A peer is an individual who exhibits similarity in age, social standing, educational background, professional status, interests, or shared experiences, and shares common interests, hobbies, and experiences. Peers engage in regular interactions within the working environment, such as colleagues, and in social settings, including friends and acquaintances."*

Lastly, we want to reflect on the previously highlighted differences between peer-to-peer networks in business and non-business settings which present notable challenges when extending our findings to the broader peer-to-peer exchange literature (Lin et al., 2019; Sepehri et al., 2021). Firstly, peer engagement in non-business settings is most likely voluntary, devoid of any tangible exchange of value, thus presenting a distinct contextual framework. Secondly, while peer-to-peer fundraising predominantly targets one's immediate social circle like friends and family, peer-to-peer business models such as Uber or Airbnb base on interactions with often unfamiliar peers. Within these contexts, factors, such as the perceived equity of prevailing economic structures and outcomes, as demonstrated by Cakanlar & Ordabayeva (2023), significantly influence customer decision-making processes. Nevertheless, it is conceivable that relational elements as suggested in our study also exert a substantial impact. For example, Lee et al. (2010) underscored the influential role of opinion leaders positioned at the center of social networks. Moreover, although social discounting might not initially influence consumer decisions, it could play a pivotal role in shaping them during the initial interaction between peer providers and peer donors (e.g., AirBnB), thus becoming integral to concepts of retention and loyalty. Future research could further examine on the role of relationships in shaping purchasing and retention decision. Future research could also undertake comparative analyses of engagement dynamics in both business and non-business contexts.

MANAGERIAL IMPLICATION

The study's findings hold significant managerial implications for fundraising managers, specifically in terms of how they should approach the design of peer-to-peer fundraising campaigns. First, our finding that various peer groups evoke different levels of peer donation underscores the importance of selecting the right peers as fundraiser. To the extent that fundraising manager can determine, they should motivate the peer fundraiser to ask within their close social network. This can be achieved by creating peer environments that foster the participation of family and friends. Since peer-to-peer fundraisers often coincide with events, it's crucial for these events to cultivate an atmosphere that encourages participants to leverage their personal networks for support.

Secondly, our findings suggest reevaluating the use of celebrities in peer-to-peer fundraising. The limited donation response towards peer celebrities, with donors contributing an average of only £1.72 out of £ 10 in this study, raises questions about the effectiveness of influencer marketing in peer-to-peer fundraising. There is reason to believe that while celebrities can effectively draw attention to a campaign, it seems they do not evoke as much donation behavior. While celebrities can attract attention to a campaign, their ability to stimulate donation behavior seems limited. Fundraising managers should prioritize personal peer-to-peer interactions, as celebrity endorsements may be perceived more as a promotional strategy than an authentic personal connection.

LIMITATION AND FUTURE RESEARCH

Despite the significant insights provided by this study, it is important to note a few limitations that require consideration. First, while utilizing a within-subject design has the advantage of controlling for individual differences, it might reveal the limitation of a carryover effect, particularly with respect to participants' previous allocations of donations. Respondents could potentially be influenced by their prior donation choices and consequently not view subsequent choices as independent decisions. However, since we randomized the order, the influence of these carryover effects may not be as significant.

A second limitation lies in the use of a laboratory experiment setting. While the controlled environment of the lab enhances experimental rigor, it may not fully capture the whole emotional dynamics inherent in real-world peer-to-peer fundraising scenarios. The structured con-

ditions of the laboratory might constrain participants' emotional engagement, possibly influencing more conservative donation decisions. Consequently, the £4.64 average donation to family members observed, which could be regarded as rather low, in the study may not completely convey the depth of donation behavior that could unfold in a more emotionally charged real-world fundraising context.

Third, an additional limitation arises from not controlling for the relationship or public image participants have with the celebrities they were thinking of in the experiment. As the study did not inquire about the precise relationship between the celebrity and the donor, the varying degrees of celebrity influence, including the use of superstars or those with closer ties to the donors, might have impacted the results. Incorporating a more detailed investigation into the specific dynamics between celebrities and donors could enhance the results validity.

Fourth, the experimental task solely focuses on one concrete non-profit organization (NPOs), potentially leading to bias even when controlled for through asking participants about their perception on Save the Children and if they believe that they deserve donations. Incorporating a more diverse range of NPOs could have reduced this bias.

Lastly, the limitation of focusing on only one country (United Kingdom) in this study underscores the need for caution in generalizing findings across diverse cultural contexts. Stegall et al.'s (2019) call for more cross-cultural studies emphasizes the importance of exploring how cultural settings influence the impact of social distance on altruistic behavior.

CONCLUSION

In this article, we have approached peer-to-peer fundraising from the lens of social discounting framework. In doing so, our study provided significant insights characterizing the interplay between social distance and donation behavior in peer-to-peer giving: the results of our study demonstrate that peer donors tend to donate more when they feel closer to the peer fundraiser. Notably, family members and close friends exhibit the strongest effect. Furthermore, our exploration of the “peer” concept highlighted its diverse nature and interpretation across various social contexts – which reflects the difficulties of providing a clear definition of who a peer is. To obtain such a definition we here relied on collective intelligence, using a data-driven approach and constructed a peer definition unifying the insights provided by our participants. Future research can use such a definition as a starting point to further refine the category of peers.

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Kapitel 6: The contribution of crowdfunding for philanthropy: A systematic review and framework of donation and reward crowdfunding

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The contribution of crowdfunding for philanthropy: A systematic review and framework of donation and reward crowdfunding

Claire van Teunenbroek, Carolina Della Chiesa and Laura Hesse

Abstract

Which novelties do donation- and reward-based crowdfunding bring to philanthropy? Scholars interested in crowdfunding contributed to developing empirical explanations on which features impact online giving. However, the focus on theory building is limited. We developed a theoretical framework by categorizing the empirical findings reported in 198 studies, which resulted in four crowdfunding features impacting giving: (1) project creator, (2) social information, (3) rewards, and (4) project description. We explain why these features impact giving by integrating them with insights from several fields of social sciences, deriving seven giving mechanisms. We conclude that with impacting donations via crowdfunding, three giving themes exist: being affected by (1) the perceived project's quality, (2) social connections and/or (3) tangible rewards. The categorization of mechanisms for giving allows initiators to extract best practice examples for increasing the probability of successful crowdfunding projects considering the giving mechanisms.

PRACTITIONERS POINTS

What is currently known about the subject of the paper?

- The advancements of digitalization have led to a changing giving landscape, introducing new forms like donation- and reward-based crowdfunding.
- Crowdfunding is an online marketplace for fundraising appeals involving four actors: crowdfunding project, initiator, donor, and crowdfunding platform.
- Despite its increasing popularity among private individuals and charitable organizations, crowdfunding projects often lack enough funding.

- While several empirical accounts regarding influential factors and the above-mentioned actors exist, a clear theoretical background is missing.

What does our paper add to this?

- We systematically reviewed the literature (n = 198) and added a theoretical framework of donation- and reward-based crowdfunding concerning giving behavior. Our framework includes information on what impacts donor behaviour (i.e., features) why (i.e., mechanism).
- The findings reveal four influential features: (1) project creator, (2) social information, (3) rewards, and (4) project description, and seven explanative mechanisms summarized in three themes: (1) perceived project quality signals, (2) social aspects and (3) tangible rewards.

Advise for practice?

Based on the findings, we advise individuals and charitable organizations to:

- Ensure quality signals by (1) choosing a well-reputed and trustworthy project creator, (2) providing a transparent and informative project description including imagery content and reasonable length, and (3) engaging more competent and renowned donors that promote the campaign and function as role models for other donors. Charity advice: Projects with an officially recognized non-profit status tend to be more successful than projects without such a status.
- Benefit from social aspects by (1) engaging a well-connected project creator with strong social ties, and (2) using community-building and emotional content. For example, sharing updates about the project's development or offering intangible goods facilitates interactions. Also, highlight the word “community” and use social media at the beginning of the campaign. Charity advise: As charities have looser ties (leaning less on direct family and friends), they need to provide more information about the project to be successful or focus on a community connected with the project's aim (e.g., artists).
- Provide tangible rewards to encourage a younger crowd, primarily. Charity advice: While tangible rewards can increase the fundraising success of individuals, a charitable organization should refrain from offering just tangible rewards.

1 INTRODUCTION

Online fundraising methods like donation- and reward-based crowdfunding are becoming more critical since traditional methods like door-to-door collections are less effective in soliciting donations (e.g., see the Netherlands, Van Teunenbroek & Bekkers, 2020b; Van Teunenbroek et al., 2022; Van Teunenbroek & Hasanefendic, 2022). Crowdfunding projects involve four actors: the funding goal ("crowdfunding project"), the person or group that is proposing a project and seeking funding ("initiator"), the Internet users who support the project by pledging an amount of their choosing ("donor") and the Internet platform ("crowdfunding platform"). The platform hosts crowdfunding projects, therefore, playing a mediating role between initiators and donors. Platforms promote projects via customized pages hosted by the initiator. Before the project is launched, the initiator has to determine a target amount: the minimum required for the project to be successful. This connects to the timeframe: projects have a predefined number of days to collect the money. Both are communicated with potential donors via the webpage of the project.

Crowdfunding is used to collect funds for individuals (private individuals or professionals like artists, see Dalla Chiesa, 2022), charities (Van Teunenbroek & Hasanefendic, 2022) and institutions (like cultural institutions, see Dalla Chiesa, 2022; Dalla Chiesa & Dekker, 2021; Dalla Chiesa et al., 2022; Van Teunenbroek & Smits, 2022). For instance, collecting funds to cover medical costs, support medical research, work on a new art show, support Ukrainian war victims and earthquake victims in Turkey. Currently, many crowdfunding projects lack enough funding to succeed (Jiang et al., 2021; Wei Shi, 2018). For instance, only 1 out of 10 viewers of a crowdfunding page donate (Van Teunenbroek & Bekkers, 2020a). Thus, discussing how crowdfunding can contribute to understanding philanthropic behavior online is of great importance.

Since 2011, numerous studies have examined stimulants for donating via crowdfunding, although attention is scarcer than the scholarly debate on equity- and lending-based crowdfunding (Alegre & Moleskis, 2021). While systematic reviews of donation- and reward-based crowdfunding exist (Salido-Andres et al., 2021), our aim is not to merely summarize studies but to provide a theoretical framework focused on the mechanisms that are common to crowdfunding. We observed that studies contributed limitedly to no effort to developing consistent theoretical explanations. As a result, we are left with a series of empirical accounts without a clear theoretical background, especially when reward and donation models are considered. The model

choice is not determinant for giving behavior since both allow non-commercial support (Bürger & Kleinert, 2021). Typically, donation-based platforms (e.g., Go Fund Me) thrive on giving behavior as a rule, while reward-based platforms (e.g., Kickstarter) allow donations in the "reward" tiers. For most of reward-based crowdfunding, donating is a matter of choosing a reward level without a physical or digital product in return.

Given our comprehensive focus on the two models, we consider a review focused on developing a theoretical framework an essential next step to assist practitioners and academics in exploring crowdfunding. Our research question is: *Which features of crowdfunding projects mediate and impact online donations?* We developed such a theoretical framework by first categorizing the empirical findings reported in 198 studies, which resulted in four key characteristics of crowdfunding, namely (presented in no particular order) the (1) project creator, (2) social information, (3) rewards, and (4) project description. As a next step, we explain why these features impact giving (i.e., mediators) by integrating them with insights from several fields of social sciences, like behavioral economics, social psychology, consumer behavior and philanthropy.

Our model is consistent with the finding that donors have different reasons for giving (Bekkers & Wiepking, 2011) and that crowdfunding offers a specific way to engage with fundraising campaigns. With crowdfunding, donors can easily identify the project creator, which is often a person, a group of people, or an institution (Van Teunenbroek & Hasanefendic, 2022). Via this, donors are affected by the relationship with the *project creator* (Tosatto et al., 2022) or the creator's credibility (Li & Du, 2020). Second, via a crowdfunding page, a donor can see the behavior of other donors (i.e., social information, see Van Teunenbroek, 2020), which can be interpreted as a quality signal (Van Teunenbroek et al., 2020). A donor might think: if others are donating to this project, they must consider it a qualitatively good enough project. Third, *rewards* are a key component of crowdfunding as it stimulates those expecting any in-kind (Ryu et al., 2016) or intangible rewards (Bitterl & Schreier, 2018). Fourth, the transparency of crowdfunding is reflected in the detailed *project description*, whereby the project's goal, cause of the problem and suggested solutions are conveyed. Donors are, thus, affected by the project's quality (Wu, Huang, et al., 2022), emotional reaction (Nakagawa & Kosaka, 2022), and connected community (Zheng et al., 2018). We conclude that three general themes are specific to giving via crowdfunding: being affected by (1) a project's quality, (2) social connections, or (3) tangible rewards.

The categorization of mechanisms for giving via crowdfunding adds to an emerging area of research. It allows initiators to extract best-practices for increasing the probability of successful projects.

2 METHODOLOGY

The core of our review is 198 empirical studies reporting on stimulants for crowdfunding from several fields (e.g., philanthropy, behavioral economics, consumer behavior, and social psychology). The high amount of papers prevents us from citing and discussing each paper. Therefore, following the example of Chapman et al. (2022), we discuss categories of articles, using selected articles to describe the proposed framework. Further details of the corpus of literature and topics covered are published as Data S1 via the Open Science Framework (https://osf.io/ahdrc/).

Following the methodological approach of Van Teunenbroek et al. (2020), the process consists of two steps: we (a) systematically reviewed the literature (see Figure 1) and (b) developed a theoretical framework (see Figure 2).

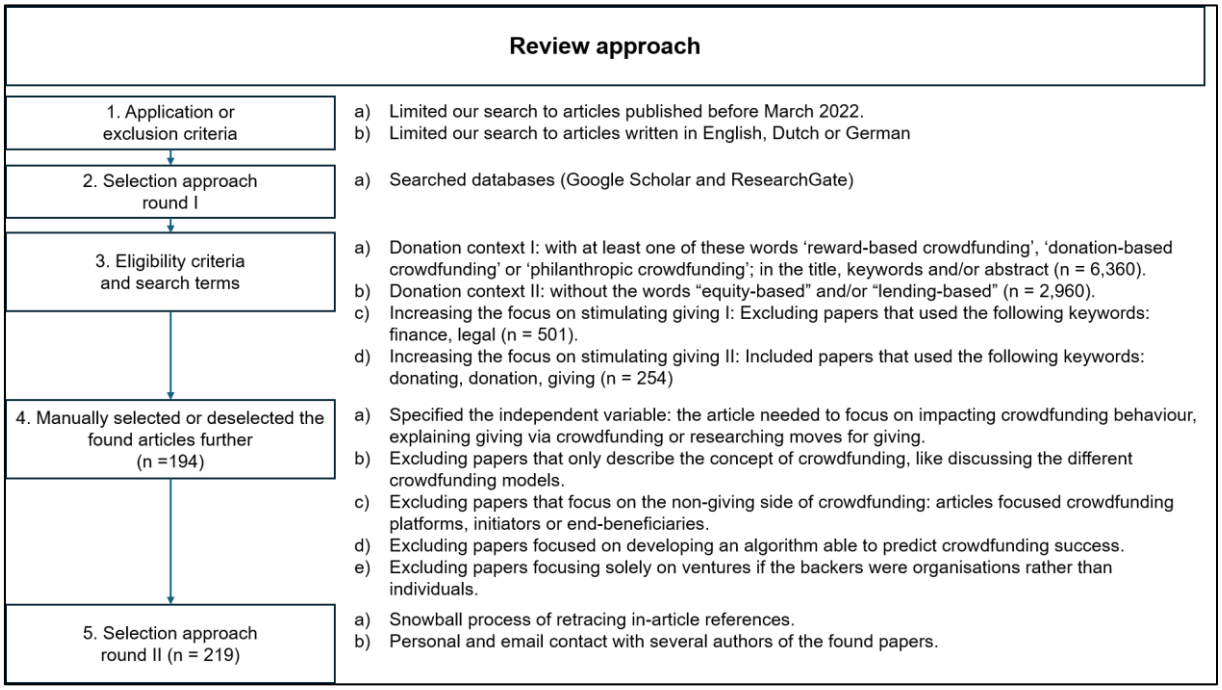

Figure 1. Overview of the selection process.

To review the literature, we used several inclusion criteria (see Figure 1). We focus on donation- and reward-based crowdfunding, excluding papers on equity- and lending-based crowdfunding, as they focus on investment behavior instead (Pierrakis, 2019). We focus on papers reporting

on giving behavior but exclude papers on developing algorithms and initiators' motives since those do not add to our understanding of mechanisms impacting giving behavior.

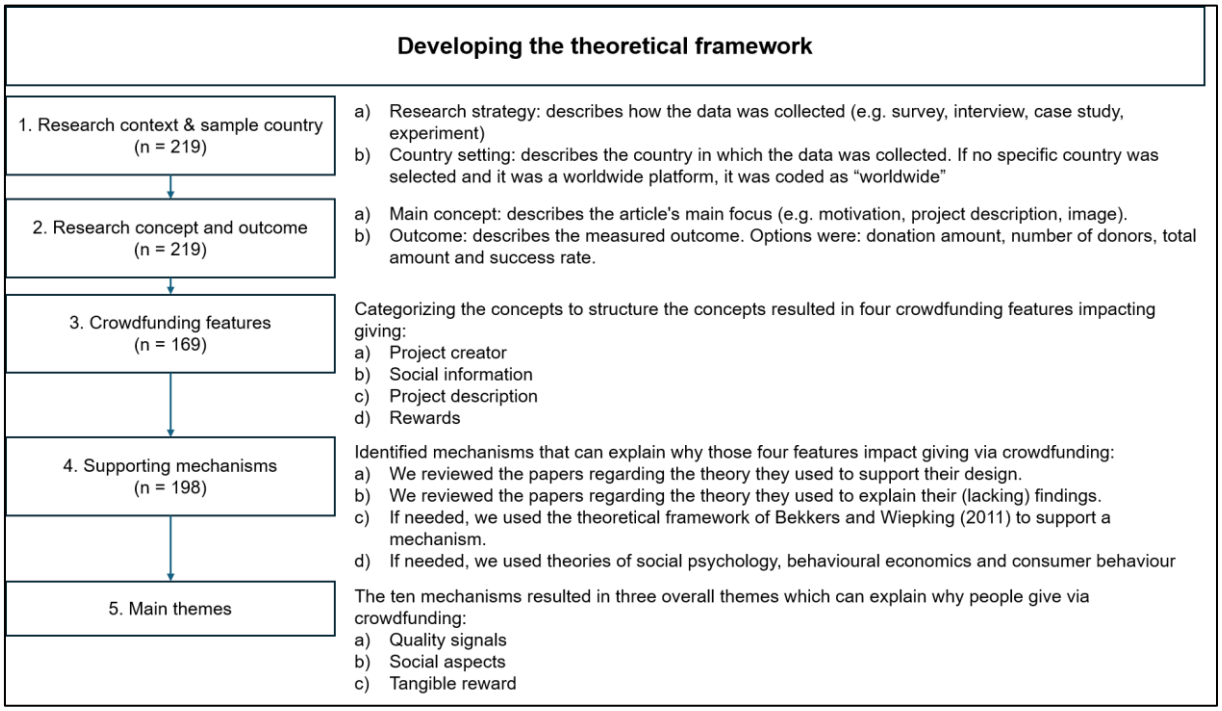

Figure 2. Overview of the steps taken to develop the theoretical framework.

Academics published the included studies in journals, books, or working papers before June 2022. We searched (a) academic databases (PsychInfo, PubMed); (b) Google Scholar; (c) ResearchGate and (d) references cited in the articles found. We used the following keywords: reward-based crowdfunding, donation-based crowdfunding, philanthropic crowdfunding, stimulants, stimulating, increasing success, and motivation. We searched for studies with these keywords in their title, keywords, or abstracts. This process resulted in 194 papers. Finally, we used a snowball process of retracing in-article references, which resulted in 219 articles.

We coded the (a) studied variables, (b) type of crowdfunding, (c) research context and (d) country (see Figure 2). An overview of the categorization per paper is included as Data S1. The suggested feature refers to the independent variable used in the paper. The type of crowdfunding can consist of donation-based and/or reward-based crowdfunding. The research context indicates whether it was a lab experiment, a field experiment, an interview, a case study or a survey. Country refers to the country where the data was collected. As many projects are available worldwide, and if the paper did not specifically mention a specific country focus, we categorized it as "worldwide."

Next, we developed a theoretical framework by reviewing each study and specifying the paper's focus (i.e., independent variable, central concept). This resulted in four main crowdfunding features, supported by 169 articles, which are said to impact giving; see step 3 in Figure 2. Table S1 overviews the supporting papers per feature. Next, we focused on explaining why (i.e., mediators) these features impact giving via crowdfunding, supported by 198 articles, by using (1) explanations mentioned in the cited papers, (2) the theoretical framework proposed by Bekkers and Wiepking (2011), (3) insights from social psychology (e.g., need to belong, social ties), (4) behavioral economics (e.g., quality signals, utility) and (5) consumer behavior (e.g., consuming rewards). This resulted in 10 mechanisms (see Figure 3).

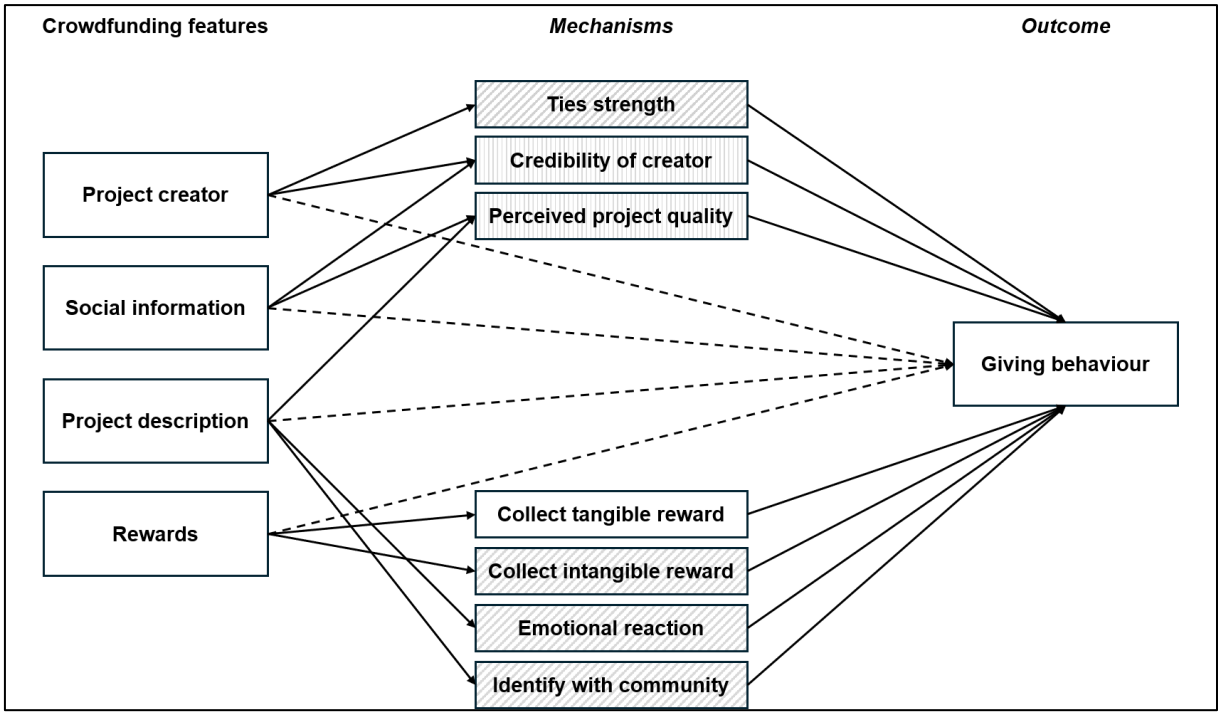

Figure 3. Overview of the crowdfunding features and discussed mechanisms impacting giving via crowdfunding. The gradients reflect the three overarching themes we identified: quality signals (vertical gradient), social aspects (diagonal gradient) and tangible rewards (white).

3 GENERAL MECHANISMS IMPACTING GIVING BEHAVIOR

In terms of philanthropy, we follow the definition of Schuyt (2021), who states that: "Philanthropy is a universal social arrangement that provides the framework for philanthropic behaviour, giving (money, goods and time) to others (outside the own household), to the group or community by individuals and organisations, to primarily serve the interest of those other(s) (or group/community)." His definition is a renewed and more modern version of the definition of Payton (1988). The definition of Schuyt (2021) considers giving as philanthropic as long as it

is outside of one's household. For our purposes, thus, giving behavior is a decision taken at the individual level, in which the chosen crowdfunding model plays a minor role as long as online platforms allow supporters to give money without expected returns.

Several mechanisms impacting giving behavior in traditional giving contexts (see Bekkers & Wiepking, 2011) are also expected to influence giving via crowdfunding. For example, altruism may explain why socially oriented-projects succeed more than more business-like projects (Calic & Mosakowski, 2016). Solicitation is expected to impact giving since most donors giving via crowdfunding are still approached to give (Van Teunenbroek & Hasanefendic, 2022). Moreover, donors often mention psychological benefits like joy of giving (Cecere et al., 2017; Efrat et al., 2020; Yi et al., 2022): the positive mood change because of donating (Andreoni, 1989). In our framework, we do not deny their influence but rather focus on key features of crowdfunding and how they impact giving. Therefore, we add to the literature by introducing a more modern way of online giving and its related mechanisms.

4 CROWDFUNDING FEATURES AND MECHANISMS IMPACTIG GIVING BEHAVIOR

We present the literature via four key crowdfunding features identified by the literature to impact crowdfunding donations (see Figure 3). We discuss multiple mechanisms that might explain why donors are affected by these four features. While multiple mechanisms exist, we focus on those who received the most support from the crowdfunding literature. The mechanisms do not exclude each other: they may operate concomitantly.

4.1 Project creator

With crowdfunding, the project creator, the individual or the group seeking funding, is clearly stated and easily identified. Here we focus on any information related to the project creator (written or visual), thereby excluding information on the project (which we consider as “project description”). Research suggests that the relationship between project creators and donors is essential when studying crowdfunding (see Table S1), as participants are likelier to donate to a project with a stated initiator than those assigned to a project without the initiator's name (Nekmat & Ng, 2019). We propose that the project's creator influences donors because of (1) the strength of the ties with the creator and (2) the creator's reputation.

4.1.1. Tie strength with the project creator

Crowdfunding is mostly characterized by network-based fundraising (Van Teunenbroek & Hasanefendic, 2022; Van Teunenbroek & Smits, 2022), as initiators are often close to donors (Borst et al., 2018; Dalla Chiesa, 2022). Therefore, we argue that people are likelier to donate to a crowdfunding project with a strong tie than a weak one (Tosatto et al., 2022)—the latter representing only casual contacts (Haythornthwaite, 2005). This suggests that direct contact between the initiator and donor is important (Ahrens et al., 2019).

In interviewing donors, participants used words such as "near" versus "far" to describe the relationship with the initiator, giving more often to the first category (Huang et al., 2021). Donors often expressed that personally knowing the initiator was enough for them to donate. When this is not present, donors focus on the project's content (Demandt, 2019). Survey research suggests that donation-based donors with weak ties need more information about the project than strong ties (Polzin et al., 2018).

The focus on network-based fundraising means that project makers need a large network to collect larger amounts successfully (Aprilia & Wibowo, 2017; Byrnes et al., 2014; Kromidha & Robson, 2016; Kunz et al., 2016; Liao et al., 2015; Sokolova & Perez, 2018; Zhang, Liu, et al., 2022). Founders may strategically withhold the campaign launch until the most beneficial moment to collect monetary gifts based on strong ties. In a qualitative study, Dalla Chiesa and Dekker (2021) show how founders of artistic projects substantially rely on earlier kindness, prior debts, and the expectations of gift-giving on celebratory dates to channel donations.

The network impact is more present at the beginning and end of a campaign (Borst et al., 2018) since early contributions of "family and friends" are later replaced by loyal backers who care more about the content of the project than the creator (Skirnevskiy et al., 2017). This connects to the finding that social media is most effective at a campaign's beginning (Dehdashti et al., 2022), since with soliciting close ties, social media platforms play an essential role, with Facebook being the leading media platform from the start (Hekman & Brussee, 2013; Hong et al., 2015), and to this day (Van Teunenbroek & Hasanefendic, 2022). Researchers explain that Twitter focuses on objective information and quality signals, while Facebook focuses on supporting connections and social norms. Moreover, to strengthen the connection, direct communication between the donor and project creator is important (Cicchiello et al., 2022) and often happens within the platform via comments and updates.

4.1.2 Perceived credibility of the project creator

Crowdfunding provides information that impacts the perceived credibility of a creator (Li & Du, 2020). We perceive credibility as a perceptual concept rather than an objective one (Flanigan, 2017). In that sense, credibility relates to trustworthiness, thereby impacting how much people find the information trustable or believable (Kim & Park, 2022). Crowdfunding is typically characterized by high uncertainty and ambiguity, wherein information asymmetry exists between initiators and donors (Josefy et al., 2017). In such a case, people focus on quality signals to guide their behavior (Van Teunenbroek et al., 2020). Thus, with crowdfunding, trustworthiness and quality signals are critical elements impacting donations (Cavalcanti Junqueira & Soetanto, 2022; Liu et al., 2018). We argue that donors perceive a project creator as a reflection of the project's quality.

Crowdfunding research suggests that a project creator's perceived reputation is related to the project's perceived credibility (Courtney et al., 2017; Kasri & Indriani, 2021; Kim et al., 2022; Liu et al., 2018; Zhang, DeCarlo, et al., 2022) and success (Borrero Domínguez et al., 2022; Bukhari et al., 2019; Lee & Chiravuri, 2019). For instance, among religious-oriented projects, findings suggest that previous experience and accomplishments in crowdfunding matter (Bukhari et al., 2019). Projects with experienced project creators were more often successful than first-timers. Similar results were found among non-religious projects (Borrero Domínguez et al., 2022; Courtney et al., 2017; Kim et al., 2017; Lee & Chiravuri, 2019; Qian & Lin, 2017; Skirnevskiy et al., 2017; Steigenberger, 2017; Usman et al., 2019; Wang & Yang, 2019; Zhang, DeCarlo, et al., 2022). On the other hand, a project creator's credibility does not always affect giving. For instance, it was found that experience did not affect funding success after including cognition-promotion aspects: responding to questions, updates and rewarding sponsors (Koch & Siering, 2015; Yeh et al., 2019), which might be another way to gain respect.

Projects with an officially recognized non-profit status also tend to be more successful than projects without it (Hörisch, 2015). Chinese charities using donation-based crowdfunding focus on creating a reliable image by mentioning quality signals—for example, project creators connected with international organizations or governments (Liu & Chen, 2021). Charities also present their previous work by highlighting earlier projects. By surveying respondents, research shows that the initiator's reputation (measured as the extent to which a potential donor believes the initiator is honest to the donors) correlates with the perceived quality of a project (Jiao et al., 2021).

On the other hand, creators with a higher research experience (e.g., professor) did not attract more donors to science-based projects than projects with more novel initiators (e.g., PhD candidates) (Sauermann et al., 2019). This contradicts the idea that the perceived quality of a project is vital for success, as an individual further in her career is more likely to deliver a high-quality project. Alternatively, donors might perceive projects from senior researchers as "adversely selected," thus, of lower quality because they were rejected by traditional funding sources (Sauermann et al., 2019). In addition, the need for help might be perceived as higher among junior researchers since they are at the start of their careers. The perceived need for help has been found to be an important influence on traditional giving (Bekkers & Wiepking, 2011).

Younkin & Kuppuswamy, 2018 finding highlights the subjectivity of quality signals. The researchers found that projects initiated by African American men are less likely to be funded and unconsciously perceived as lower quality than similar projects by Caucasian men. The bias can decrease with information about the prior success of African American initiators (Younkin & Kuppuswamy, 2018).

4.2 Social information

Social translucence theory argues that donation activity should be visible online to achieve a common goal (Erickson et al., 1999); since donations rarely go offline, online cues are critical for decision-making (Xu, 2018). A crowdfunding page reports the number of donors who supported the project, and some also mention the donation amounts of others. Both are examples of social information: information about the behavior of others (Van Teunenbroek, 2020). Several studies report that donors are affected by social information in a crowdfunding context (see Table S1), which reflects a quality signal (Potters et al., 2001; Van Teunenbroek et al., 2020).

4.2.1 Perceived project quality and credibility of the project creator

It is an economic assumption that people are rational and utility-maximizers, and donors prefer to donate to high-quality projects (Fishbach et al., 2011), as low-quality projects are of lower utility-maximization. In addition, high-quality campaigns might provide qualitatively better rewards (Kim et al., 2020). However, people find it hard to judge philanthropic projects' and practitioners' quality, especially in a charitable context (Vesterlund, 2003). In such an ambiguous context, individuals often rely on others' choices to guide their decision (Suls et al., 2002). Donors use information as a quality signal via a signaling effect (Potters et al., 2001), which occurs when potential donors feel uncertain about the project or creator's quality and use peers'

decisions as a signal of high-quality (Andreoni, 2006). This way, individuals can use the experience of others to direct their behavior (Erickson & Kellogg, 2000).

We expect quality signals to be essential for reward-based and donation-based crowdfunding (Burtch et al., 2013; Mollick, 2014). Asking experts to rate crowdfunding projects without knowing if donors backed them showed that experts often supported the same projects as donors (Mollick & Nanda, 2016). This suggests that donors can be helpful in decision-making, especially when they are end users (e.g., visitors to a theater).

A large field experiment at a Dutch reward-based crowdfunding platform using a random control setting shows that the donation amount of others increased funding by stimulating some donors to give high amounts, but it left the number of donors unaffected (Van Teunenbroek & Bekkers, 2020a). Similar effects were observed with donation-based projects (Raihani & Smith, 2015; Sasaki, 2019; Smith et al., 2015). For instance, a £10 increase in past donations increased donations by £2.50 (Smith et al., 2015). Mimicking a crowdfunding campaign, an online experiment shows that the donation amount of others did not affect the number of donations (Van Teunenbroek et al., 2021). These findings suggest that social information primarily impacts crowdfunding success by stimulating higher amounts rather than attracting a larger donor pool.

Adverse effects are also reported. A field experiment on a reward-based platform found that donating small amounts decreased the donation amounts of other donors (Zaggl & Block, 2019). The researchers explain that this signals uncertainty and hesitation from the donor, which might decrease the perceived quality of a project. Conducting a field experiment at a donation-based platform, Koning and Model (2013) found that, at the beginning stage, projects assigned with a moderate-sized ($40) donation increased donations while small-sized ($5) donations decreased giving. Another example reports that fake social information had a short-term positive effect on reward-based projects and later negatively affected donations (Wessel et al., 2016). Perhaps quality signals are more profound in the beginning stage of a project (Cason et al., 2021; Koning & Model, 2013; Van Teunenbroek & Bekkers, 2020a), when uncertainty abounds.

Projects supported by a company were more often successful than projects receiving no support from companies (Gangi & Daniele, 2017). The researchers conclude that even with crowdfunding, donations from more competent and renowned donors can promote funding success, described as the endorsement effect of third parties (Stuart et al., 1999).

The impact of quality signals suggest a rational assessment of a project's success (Mollick, 2014). Social information also explains failures when campaigns struggle to collect funds in the first weeks (Cason et al., 2021; Greenberg et al., 2013; Rijanto, 2018; Van de Rijt et al., 2014). Moreover, as the number of previous donors to a project increases, so do the odds of a new donor donating: the closer a crowdfunding campaign comes to the target amount, the higher the participation rate (Kuppuswamy & Bayus, 2017, Kuppuswamy & Bayus, 2018; Li & Wang, 2019; Zvilichovsky et al., 2018), and donation amounts (Dai & Zhang, 2019; Van Teunenbroek & Bekkers, 2020a).

4.3 Rewards

Crowdfunding feature: Reward-based crowdfunding projects offer tangible (physical items) and intangible rewards (like a unique experience or a digital product). Both may or not have a clear monetary value (Chinman et al., 2005). In this case, donors seek to receive a reward even if their intentions are philanthropic. It is common to mix material and non-material rewards to explore the maximum consumer surplus (Dalla Chiesa & Handke, 2020), hence designing an effective reward structure (Wei Shi, 2018). Thus, we expect donors to be affected by rewards if: (1) they want to collect a tangible rewards or (2) to collect an intangible reward.

4.3.1 Collect a tangible reward

The economic literature on philanthropy broadly discusses intrinsic (e.g., altruism, warm-glow, see Andreoni, 2006) and extrinsic (e.g., desire to acquire material rewards or other benefits, like t-shirts or event tickets) motivations. Some are motivated to give by material self-gain (Bekkers & Wiepking, 2011). If a donor requests a reward, this can partly be understood as a form of consumption (Bekkers & Wiepking, 2011). Material rewards offer “tangible benefits” with clear gratification (Allen & Meyer, 1990).

The crowdfunding literature suggests that donors may want a proposed reward as compensation for a donation effort (Gerber et al., 2012; Ryu et al., 2016; Ryu et al., 2020; Ryu & Kim, 2016). These donors can often be found in art, design, and game projects (Ryu & Kim, 2016), where charitable giving only partially explains donation. As the type of reward depends on the donation amount, the donor can modulate the value depending on the items available for pre-purchase. This type of donor is often younger than charitable donors (Ryu & Kim, 2016). Participants scoring higher on extrinsic motivation donate more to reward-based projects than intrinsically motivated donors (Cox et al., 2018). For charities, offering rewards could be harmful

(Zhao & Sun, 2019). The researchers observed that projects connected to a charity attracted fewer donors if they also offered rewards than projects not offering rewards.

4.3.2 Collect an intangible reward

Donors can be motivated to gain experience and connect with others. Experience rewards are rather typical (i.e., intangible rewards), like visiting a university lab, participating in a dinner celebration, and accessing concerts. Via this, project creators focus more on an experience component (Thürridl & Kamleitner, 2016) and connections with others (Bitterl & Schreier, 2018). Theories from consumer behavior explain that by choosing intangible rewards, donors can signal their commitment to a community (Allen & Meyer, 1990). Moreover, social media studies report the importance of connectedness (Chen, 2011). Social psychology also considers social interactions a basic human need (Tomova et al., 2020), thereby giving could give the possibility to connect and network.

Intangible rewards excel in providing a connection with a charity (Bitterl & Schreier, 2016; Hobbs et al., 2016; Van Teunenbroek & Smits, 2022). Running multiple experiments, Bitterl and Schreier (2016) found that donors connect strongly with a project by donating rather than buying a product. By interviewing project creators, it was found that rewards are facilitators of connection (Van Teunenbroek & Smits, 2022). Furthermore, Hobbs et al. (2016) found that intangible rewards are more attractive in the presence of celebrities (e.g., a famous filmmaker) (Hobbs et al., 2016).

4.4 Project description

Next to information on the project creator (previously discussed), the webpage also portrays project-related information focusing on the project's aim in the form of written information, a promo video and images. In other words: why the initiator is fundraising and how they will use the donations. These standardized project descriptions that aim to inform the public distinguish crowdfunding from conventional non-profit fundraising campaigns (Wash, 2013). The crowdfunding literature suggests that individuals are affected by the project description (see Table S1).

The description reflects the project's narrative. Narratives are anything recounted by any individual, oral, written or visual, fictional or non-fictional (Veenswijk & Berendse, 2008), and play an essential role in people's lives, as narratives allow sensemaking and give meaning to interactions (Bruner, 1996). This way, the project becomes more accessible to potential givers.

This process of "projectization" (a term coined by Krause, 2014) provides a better view of what they are supporting (Alborough, 2017). Updates and comments are also information providers (Choy & Schlagwein, 2016), which announce new rewards, and questions, provide new content (Xu et al., 2014), and community-building (Bao et al., 2022). Therefore, they are suggested to impact crowdfunding success (Kuppuswamy & Bayus, 2018; Salvi et al., 2022; Usman et al., 2020). Moreover, an online experiment showed that donation-based projects featuring humans receive higher donations than in their absence (Weinmann et al., 2020). We argue that the project description affects giving because (1) donors use it to determine the quality of a project, (2) it evokes an emotional reaction, and (3) donors personally connect with the projects' community.

4.4.1 Perceived project quality

Burtch et al. (2013) perceive project descriptions of donation-based projects as pitches in which initiators attempt to convince individuals to contribute via a short description of the project. Individuals can use project descriptions to screen and judge projects' quality (Wu, Zhang, & Xiao, 2022). The underlying rationale is that projects can signal their credibility via the description, thereby reducing the information asymmetry between "projects and donors"—like other online transactions mediated by two-sided markets (Dalla Chiesa & Handke, 2020).

A project description can be perceived as a quality signal by increasing the trust someone feels toward a project (Behl & Dutta, 2020; Ho et al., 2021; Wu, Zhang, & Xiao, 2022). By performing a thematic and lexical analysis, De Crescenzo et al. (2022) found that a compelling narrative (i.e., common among successful projects) mentioned: (1) problem/need, (2) project description, (3) goods and services offered to the person in need, (4) information about the initiators and (5) venture history. Their findings suggest that narratives should emphasize reassurance, reliability, and credibility. We understand that these aspects build transparency (Spanos, 2018).

Roe (2016) used a survey experiment to test if reward-based project videos use an significant argument (i.e., cognitive decision-making via the central route, see elaboration likelihood model, Petty et al., 1983), based on description content, rather than the explicit argument (i.e., affective decision-making via the peripheral route, Petty et al., 1983). Some people use either route more often (Petty & Wegener, 1998). Their results showed that donors are more frequently persuaded by the "argument" (worth or merit) made in a video than by the feelings they get from watching it. This suggests that the quality of the project is an important influence on the decision to donate.

Projects with spelling errors had a lower success rate than those without. Regardless of the crowdfunding model (Ho et al., 2021; Mollick, 2014), the findings suggest that written descriptions should remain understandable to a broad public without appearing unprofessional (Gascón et al., 2015; Salvi et al., 2022). For instance, projects featuring radical, innovative ideas are less likely to be funded because the project's aim is harder to understand (Chan & Parhankangas, 2017).

It is a thin line between transparency and too much information (Aprilia & Wibowo, 2017; Bi et al., 2017; Sokolova & Perez, 2018; Sulaeman, 2017; Xu, 2018). Researchers found that the length of the project description and the number of images increase donations (Kubo et al., 2021; Wu, Zhang, & Xiao, 2022), while a lengthy text (Kim et al., 2016; Zhang, Liu, et al., 2022) and the number of technical terms decrease donations (Wu, Zhang, & Xiao, 2022). Kubo et al. (2021) suggest that this effect follows an inverted U-shape: long and concise project descriptions are associated with unsuccessful campaigns, as are short descriptions.

A narrative can also be displayed via videos and images, which enhance media richness in online communication (Lodhia, 2012), and videos are also essential to communicate a project's quality (Courtney et al., 2017; Hobbs et al., 2016). Some even suggest that visuals affect quality assessments more than written descriptions. Based on Kickstarter, Kim et al. (2016) found that video narratives are more impactful than only written ones.

4.4.2 Emotional reaction

A compelling narrative is essential since it can evoke emotions, which is essential for giving (Wang et al., 2022). For instance, projects that address social issues evoking cognitive empathy are more likely to be supported than business-like projects (Nakagawa & Kosaka, 2022). The philanthropic literature mostly suggests that a positive rather than a negative framing increases giving (Bekkers & Wiepking, 2011): happy people give more than others (Kushlev et al., 2022).

This is supported by a part of the crowdfunding literature (Defazio et al., 2021; Ryu et al., 2016; Wu, Zhang, & Xiao, 2022; Yi et al., 2022), but most of the studies support “negative framing”; both for donation-based (Rhue & Robert, 2018) and reward-based crowdfunding (Chen et al., 2016; Kim et al., 2016; Kuo et al., 2022; Moradi & Dass, 2019; Yazdani et al., 2021). Using an online experiment, Kuo et al. (2022) found that negative messages lead to more donations than positive ones. Guilt, to some extent, can increase donations (Kim et al., 2022). This compels the responsibility to donate to improve any given situation. Rossolini et al. (2021) also conclude

that this effect is more nuanced as it depends on the project category (i.e., arts, charity, product-based, etc.). Studying campaigns in the "community and environment" category, they found that negative framing worked better for clean energy and climate-reservation projects but not for agri-food campaigns (e.g., organic food production). Positive framing thus tends to work better for pro-social projects (Allison et al., 2017) and negative for pro-environment goals.

4.4.3 Community belonging

The project creator can also highlight a specific community connected with the project (Ein-Gar, 2018; Josefy et al., 2017; Paust, 2021), an essential component of crowdfunding (Booth, 2015; Donelli et al., 2022; Josefy et al., 2017; Kim et al., 2022; Paust, 2021; Zhang, Zhang, & Gupta, 2022). Some feel a strong belonging need (i.e., the human preference to be included by a valued group, see Baumeister & Leary, 1995) to a specific community (Bürger & Kleinert, 2021; Kościółek, 2021). We argue that some donors donate to support a particular community (Ahn, 2022; Gerber et al., 2012).

Ein-Gar (2018) found that highlighting the word "community" resulted in higher donations. The positive effect is mediated by connectedness with the community aimed at the project (in this case, a Jewish community). Moreover, while communities are often hosted online by social media platforms, offline contact can also have a positive effect. Paust (2021) used discourse analysis to review health-oriented projects and found that narratives are individualized: focusing on one person or community instead of a common good. Traditionally focusing on common goods is a critical component of charitable giving (Payton, 1988), but it seems that crowdfunding donors expect more specificity than generality.

Crowdfunding can allow donors to feel part of a community because they are part of its development. In other words, "they made it happen." Sharing updates about the project's development signal honesty (e.g., project changes) and facilitate interactions (Ahrens et al., 2019). Via updates, initiators can show their appreciation (Xu et al., 2014), which is expected to increase donor involvement (Gadon, 2020).

Asking an ambassador to intermediate relations configures a form of credible community-building among crowdfunding donors (Gleasure & Morgan, 2018). Researchers further demonstrated that the intention to back projects of like-minded individuals depends on the type of project (Bürger & Kleinert, 2021). Backers of cultural and artistic projects constitute a distinct

community that is often intrinsically motivated to support art and connect with like-minded individuals, unlike other types of campaigns.

5 DISCUSSION AND CONCLUSION

The literature on crowdfunding has yielded several insights for philanthropy. First, crowdfunding features share similarities and differences with traditional giving behavior. An explanation of the mechanisms explaining the effects is, however, absent. By reviewing the literature, we identified four features affecting donating via crowdfunding: (a) project creator, (b) social information, (c) rewards, and (d) project description. The project creator is the individual collecting funds. Social information is often mentioned in online campaigns in the form of the number of donors and the donation amounts of others. Some projects offer rewards, which can consist of tangible (e.g., an art product) or intangible rewards (e.g., unique experience). Crowdfunding webpages provide elaborate project descriptions and explain the project's aim.

Further, building on the broader literature of social psychology, behavioral economics, consumer behavior and philanthropy, we propose a model with 7 mechanisms to explain why these features impact giving (see Figure 3). We conclude that the mechanisms are connected to multiple features and can be summarized in three themes: (1) quality signals, (2) social aspects, and (3) tangible rewards. Quality signals reflect the project's and the creator's credibility through trust and utility. Social aspects are reflected via the relationship with the creator, intangible rewards and project description. For this, ties' strength, community-building and emotional responses are vital. Tangible rewards reflect a donor's desire to gain a particular reward, which reflects consumer behavior.

We make four suggestions for future research. First, we unveil an unanswered aspect: the relative influence of each mechanism—whether the crowdfunding features primarily affect donating because they reflect quality signals, social aspects or tangible rewards—is still unclear. Multiple mechanisms are likely to operate simultaneously, and their combinations might differ across time, contexts, project types, and donors. There are also expected interaction effects: quality signals are more critical if donors care about tangible rewards.

Second, in addition to the already studied gender and racial effects on campaign success, other personal features of donors (e.g., personality traits and socioeconomic characteristics) are likely

to moderate the impact of the mechanisms. Regarding socioeconomic characteristics, crowdfunding demographics deserve wider worldwide comparisons (Van Teunenbroek & Hasanefendic, 2022). Studying the influence of individual characteristics in combination with socioeconomic data would be fruitful. A challenge for future research is thus to investigate which combination of individual and contextual features brings more benefits to donors and creators. Which crowdfunding mechanisms are more evident in different demographics or donor segments?

Third, the features and mechanisms' effect might depend on the project type and the project creator. Crowdfunding projects are hosted mainly by individuals or groups of individuals, but charities, companies and institutions are also present (Van Teunenbroek & Hasanefendic, 2022). At the moment, we consider the literature underdeveloped on this subject, and we cannot describe how the type of project creator impacts the effect of the features and mechanisms of our model.

Fourth, we suggest increasing donation behavior as much as possible by adhering to "the most effective stimulants." We advise a focus on "clean" manipulations with proper explanations for their hypothesized effects (Van Teunenbroek et al., 2020). In other words, few studies have tried to examine potential mediators to understand "why" the effect occurs. Instead, researchers have mainly focused on identifying crowdfunding features without adequately explaining why they impact giving. This requires theorization, which our article aimed to initiate by unveiling key mechanisms.

We focused on the key features that characterize crowdfunding, thereby offering a picture of its unique mechanisms. Typical mechanisms such as target amounts (i.e., the minimum amount initiators need to collect) and social media effects are not thoroughly discussed due to prior extensive research and often disputed results: some say that high amounts are best (e.g., Sauermann et al., 2019), while others argue for moderate target amounts (e.g., Cordova et al., 2015). Such results are based solely on data scraping, which impedes causality.

Future investigation is necessary to test our proposed model and further map the effects of social information on individual and contextual donor characteristics. This is in the interest of scholars who aim to help this scientific field become more responsive to the advancements of digitalization and the subsequent changing landscape of giving behavior.

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Anhang

A. Kurzzusammenfassung der Ergebnisse

Kurzzusammenfassung in deutscher Sprache

Die vorliegende Dissertation ist im Forschungsbereich des Nonprofit-Fundraisingmanagements zu verorten. In diesem Kontext befasst sie sich mit dem speziellen Fundraisingansatz des Peer-to-Peer Fundraisings. Dieser unterscheidet sich von traditionellen Ansätzen dadurch, dass Nonprofit-Organisationen private Individuen mobilisieren, die Spenden in ihrem privaten sozialen Netzwerk für die Nonprofit-Organisation sammeln. Dabei verlassen sich Nonprofit-Organisationen nicht auf eigene Marketingmaßnahmen oder professionelle Fundraisende, sondern auf organisationsunabhängige private Individuen, wodurch neue Akteure in den Fundraisingprozess integriert werden. Die vorliegende Dissertation besteht aus vier Studien, die die Forschung zu Peer-to-Peer Fundraising konzeptionell und empirisch erweitern und einer komplementären Studie im Bereich des philanthropischen Crowdfundings.

Die erste Studie der Dissertation (Kapitel 2) untersucht den Erfolg von Peer-to-Peer Fundraising auf der Ebene der Peer-Fundraisenden in einem kollaborativen Nonprofit-Business-Kontext. Die Untersuchung basiert auf beobachtbaren realen Kampagnendaten von insgesamt 1899 Online-Spendenseiten von Peer-Fundraisenden. Die Ergebnisse zeigen, dass über die Hälfte der Peer-Fundraisenden in diesem Kontext keine Spenden gesammelt haben. Zudem war ein kleiner Teil (8%) für über die Hälfte des Kampagnenerfolgs verantwortlich. Der Erfolg bzw. Nichterfolg hing stark mit der Bereitschaft der Peer-Fundraisenden zusammen, ihre Spendenseite zu personalisieren. Zusätzlich zeigte sich, dass die Höhe des Erfolgs, sofern eine Spende erzielt wurde, stark mit dem professionellen Ruf im Netzwerk und dem eigenen Engagement zusammenhängt. Abschließend ist der durchschnittliche Spendenbetrag pro Peer-Fundraiser in diesem Kontext niedriger als der, den Chapman et al. (2019) in privaten Peer-to-Peer-Kontext festgestellt haben.

Die zweite Studie der Dissertation (Kapitel 3) erforscht Inspiration als weiteren Spendenmechanismus von Peer-Spendenden zur Erklärung deren Spendenverhaltens. Dieser setzt sich aus einer Zwei-Phasen-Logik zusammen. Die Untersuchung basiert ebenfalls auf beobachtbaren realen Kampagnendaten, dieses Mal von über 8.000 Peer-Spendenden. Die Ergebnisse deuten darauf hin, dass die Inspiration vor allem durch den Peer-Fundraisenden ausgelöst wird. Bei einer gemeinsamen Wirkung von Peer-Fundraisenden und Spendenzweck als Inspirationsquelle ist eine deutlich höhere Spendensumme zu beobachten. Die Studie liefert ein erstes empirisches Indiz für die Bedeutung der Inspiration als Treiber für Spendenverhalten im größeren Kontext des Nonprofit-Managements und zeigt weiteren Forschungsbedarf auf.

Die dritte Studie der Dissertation in Kapitel 4 untersucht, ob und in Abhängigkeit welcher Faktoren Peer Spendende nach ihrer Spende in einer Peer-to-Peer Kampagne zu Organisationsspendende transformieren. In diesem Zug wird auch der organisationale Nutzen von Machine-Learning Ansätzen für das Fundraising-Management in Hinblick auf ihre Vorhersagekraft von Transformationsverhalten überprüft. Die Untersuchung basiert auf einer Stichprobe von über 700 Peer-Spendenden in den USA. Die Ergebnisse der Studie deuten darauf hin, dass Peer-to-Peer Fundraising das Potenzial zur Neugewinnung von Organisationsspenden hat, da etwa Siebtel der Peer-Spendenden, die zuvor keine Verbindung zur Nonprofit-Organisation hatten transformieren. Zudem bestätigen die Ergebnisse den Mehrwert von Machine-Learning zur Identifikation von Spendenden mit der höchsten Transformationswahrscheinlichkeit. Diese empfiehlt es sich anzusprechen, da aus den Ergebnissen hervorgeht, dass das Kontaktieren der Spendenden mit einer erhöhten Transformationswahrscheinlichkeit in Verbindung steht.

Die vierte Studie in Kapitel 5 nähert sich dem Peer-to-Peer-Fundraising aus der Perspektive der Theorie des sozialen Diskontierens (Jones & Rachlin, 2006). Basierend auf einem experimentellen Within-Subjects-Design liefert die Studie empirische Einblicke in das Zusammenspiel von sozialer Distanz und Spendenverhalten im Peer-to-Peer-Fundraising Kontext. Die Ergebnisse zeigen, dass Peer-Spendende tendenziell mehr spenden, wenn sie sich dem Peer-Fundraiser näher fühlen. Mathematisch wird dies am besten von einer quadratischen Funktion abgebildet. Die Ergebnisse zeigen, dass insbesondere Familienmitglieder und enge Freunde sich als Peer-Fundraisende eignen und ein gesteigertes Spendenverhalten hervorrufen. Gleichzeitig stellen die Studienergebnisse die Wirksamkeit von Prominenten als Peer-Fundraisende in Frage. Darüber hinaus betont die durch Crowdsourcing erstellte, datengetriebene Untersuchung des „Peer"-Begriffs dessen vielfältige Natur und Interpretation in verschiedenen sozialen Kontexten, und somit die Schwierigkeit eine klare Definition dessen zu geben, wer in das Konzept „Peer" fällt.

Die fünfte Studie dieser Dissertation in Kapitel 6 untersucht das philanthropische Crowdfunding und zielt darauf ab, einen theoretischen Rahmen zur Erklärung des Erfolgs von Crowdfunding-Projekten zu entwickeln. Basierend auf einer systematischen Literaturrecherche kombiniert mit einem Ansatz zur Entwicklung eines theoretischen Rahmens, identifiziert die Studie verschiedene Merkmale von Crowdfunding-Projekten, die das Spenderverhalten beeinflussen: Darunter der Projektinitiator, soziale Informationen, Belohnungen und Projektbeschreibungen. Aus interdisziplinären Forschungsgebieten der Wirtschafts-, und Sozialwissenschaften sowie

der Sozialpsychologie werden zusätzlich Erklärungen für deren Wirkung gezeigt. Die Ergebnisse tragen dazu bei, das Verständnis des Spendenverhaltens im Internet zu vertiefen und bieten praktische Einblicke zur Verbesserung der Erfolgschancen von Crowdfunding-Projekten.

Zusammenfassend liefern die fünf Studien der Dissertation einen wissenschaftlichen Beitrag sowohl zur konzeptionellen als auch empirischen Weiterentwicklung des Gesamtverständnisses zu Peer-to-Peer Fundraising in der Nonprofit-Management Literatur. Durch die Integration der verschiedenen Perspektiven der beteiligten Akteure liefert die Arbeit Informationen an der Schnittstelle von Erfolgsfaktoren auf Ebene der Peer-Fundraisenden, Peer-Spendenden und der Nonprofit-Organisation. Somit unterstützt das vorliegende Dissertationsvorhaben Entscheidungsträger: innen im Fundraising Management hinsichtlich der strategischen und nachhaltigen Kampagnenplanung.

English Summary

The dissertation is situated within the research field of nonprofit fundraising management. Within this context, it deals with the fundraising approach of peer-to-peer fundraising. Unlike conventional fundraising approaches, this model enables nonprofit organizations to mobilize their supporters to ask for donation within their private social network on behalf of the organization. In doing so, nonprofits diverge from relying solely on internal marketing strategies or professional fundraisers, instead integrating independent individuals into the fundraising ecosystem. This dissertation comprises four studies aimed at both conceptual and empirical advancements in peer-to-peer fundraising research, complemented by an additional study within the domain of philanthropic crowdfunding.

The first study of the dissertation (Chapter 2) examines the success of peer fundraising at the level of peer fundraisers in a collaborative nonprofit-business context. The investigation is based on observable real campaign data from a total of 1899 online fundraising pages of peer fundraisers. The results indicate that over half of the peer fundraisers in this context did not collect any donations. Additionally, a small portion (8%) was responsible for over half of the campaign's success. Further, the results reveal that success was strongly associated with the willingness of peer fundraisers to personalize their fundraising pages. Furthermore, the level of success, if a donation was obtained, was strongly correlated with the professional reputation within the network and personal effort. Lastly, the average donation amount per peer fundraiser in this context is lower than found by Chapman et al. (2019) in a private peer-to-peer settings.

The second study of the dissertation (Chapter 3) examines inspiration as an additional mechanism within peer giving with regard to donor behavior. Donor inspiration is conceptualized

within a two-phase framework. The investigation draws upon observed data from a real-world campaign, encompassing a sample of over 8,000 donors. The findings suggest that inspiration is primarily evoked by the peer fundraiser. Notably, when both the peer fundraiser and the philanthropic cause serve as sources of inspiration, on average a heightened donation amount is observed. This study provides initial empirical evidence underscoring the import of inspiration as driver of donation behavior within the broader context of nonprofit management, while advocating for further research in this domain.

Study 3 of the dissertation in Chapter 4 investigates whether and under what conditions peer donors transform into organizational donors after their contribution in a peer-to-peer campaign. Additionally, it examines the benefits of using machine learning approaches in fundraising management to predict transformation behavior. The study is based on a sample of over 700 peer donors in the USA. The findings suggest that peer-to-peer fundraising has the potential to attract new organizational donors, as approximately one-seventh of peer donors who previously had no connection to the nonprofit organization undergo transformation. Furthermore, the results confirm the value of machine learning in identifying donors with the highest likelihood of transformation. It is advisable to address these donors, as contacting donors is related to an increased likelihood of transformation as shown by the study's findings.

The fourth study approaches peer-to-peer fundraising from the lens of social discounting theory (Jones & Rachlin, 2006). Based on a within-subject experimental design, the study provides empirical insights into the interplay between social distance and donation behavior in peer-to-peer giving. The results demonstrate that peer donors tend to donate more when they feel closer to the peer fundraiser following a quadratic function. Notably the findings suggest that family members and close friends function as efficient peer fundraisers evoking heightened donation behavior. At the same time the studies results question the effectiveness of celebrities as peer fundraisers. Furthermore, the crowdsourced, data-driven exploration of the "peer" concept highlights its diverse nature and interpretation across various social contexts reflecting the difficulties of providing a clear definition of who a peer is.

The fifth study of this dissertation in Chapter 6 examines philanthropic crowdfunding, aiming to develop a theoretical framework to explain the success of crowdfunding projects. Based on a systematic literature review combined with an approach to develop a theoretical framework, the study identifies various features of crowdfunding projects that influence donor behavior: including the project initiator, social information, rewards, and project descriptions. Additionally, explanations for their effects are identified from interdisciplinary research fields of social

science, economics and social psychology. The results contribute to deepening the understanding of online donation behavior and offer practical insights to enhance the success of crowdfunding project.

In summary, the five studies presented in the dissertation contribute to both the conceptual and empirical understanding of peer-to-peer fundraising in nonprofit management literature. By integrating the perspectives of the various actors involved, this dissertation provides insights into the success factors at the levels of the peer fundraiser, the donor, and the nonprofit organization. Consequently, this dissertation supports decision-makers in fundraising management with advice on strategic and sustainable campaign planning.

B. Zusätzliche Paper & Konferenzbeiträge

Neben den Artikeln dieser Dissertation wurden Zwischenstände auf nationalen und internationalen Konferenzen vorgestellt. Zudem wurde ein zusätzlicher wissenschaftlicher Beitrag verfasst. Die folgende Tabelle stellt die Vorträge und zusätzlichen Ausarbeitungen im Überblick dar.

Akademische Konferenzen (peer-reviewed)
1. Hesse, L. (2023). Transforming peer donors into organizational donors: Understanding and managing peer donor transformation, präsentiert auf der 52. Internationalen Konferenz der Association for Research on Nonprofit Organizations and Voluntary Action (ARNOVA), 15.-19. November 2023, Orlando, U.S.A.
2. Hesse, L., Bernardic, U., Ugazio, G. (2023). A social discounting model to measure the effect of peers' influence in giving, präsentiert auf der 52. Internationalen Konferenz der Association for Research on Nonprofit Organizations and Voluntary Action (ARNOVA), 15.-19. November 2023, Orlando, U.S.A.
3. Hesse, L., Bernardic, U., Ugazio, G. (2023). A social discounting model to measure the effect of peers' influence in giving. 11th European Research Network on Philanthropy (ERNOP) International Conference, Zagreb, Croatia.
4. Hesse, L. & Boenigk, S., (2022). Peer-to-Peer fundraising: A large empirical study on factors influencing peer fundraisers' success, präsentiert auf der 51. Internationalen Konferenz der Association for Research on Nonprofit Organizations and Voluntary Action (ARNOVA), 17.-19. November 2022, Orlando, U.S.A. Raleigh, U.S.A.
5. van Teunenbroek, C., Dalla Chiesa, C. & Hesse, L. (2022). Four crowdfunding features explained: A review and theoretical framework of philanthropic crowdfunding, präsentiert auf der 51. Internationalen Konferenz der Association for Research on Nonprofit Organizations and Voluntary Action (ARNOVA), 17.-19. November 2022, Orlando, U.S.A. Raleigh, U.S.A.
6. Boenigk, S., Saltzmann, C., Hesse, L., & Geib, N. (2022). Transformative service initiatives in the public sector: work and wellbeing for Refugees and Internationals, präsentiert auf der 12. Internationalen Konferenz der Service Special Interest Group of the American Marketing Association (SERVSIG), 16.-18. Juni 2022, Glasgow, Schottland.
7. Hesse, L. & Boenigk, S. (2021). Peer-to-Peer giving: A large empirical study on peer fundraiser as source of inspiration, präsentiert auf der 10. Jahrestagung des European Research Network on Philantropy (ERNOP), 02.-03. Dezember 2021, Dublin, Irland.
8. Hesse, L. & Boenigk, S. (2021). Peer-to-Peer giving: A large empirical study on peer fundraiser as source of inspiration, präsentiert auf der 50. Internationalen Konferenz der Association for Research on Nonprofit Organizations and Voluntary Action (ARNOVA), 18.-20. November 2021, Atlanta, U.S.A..
Akademische Konferenzen (nicht peer-reviewed)
1. Hesse, L. (2024). Update on Peer-to-Peer Fundraising, präsentiert im Rahmen des Virtual Research Forums des Association of Fundraising Professionals, 13. Mai, 2024, Virtuell.

2. Hesse, L. (2024). Predicting Peer Donor Transformation, präsentiert auf der Tagung der Wissenschaftlichen Kommission ÖBWL im VHB, 06.-08. März 2024, Lüneburg, Deutschland.

3. Hesse, L. (2023). Transforming peer donors into organizational donors: Understanding and managing peer do-nor transformation, präsentiert auf dem 20. Doktoranden- und Habilitandenkolloquium – „Management Science", 05.-07. Juli 2023, Bayreuth, Deutschland

4. Hesse, L., & Boenigk, S. (2023). What makes peer fundraisers successful? An empirical study in the context of peer to peer nonprofit business collaboration, präsentiert im Rahmen des Virtual Research Forums des Association of Fundraising Professionals, 11. Juli, 2023, Virtuell.

5. Hesse, L. (2023). Transforming peer donors into organizational donors: Understanding and managing peer do-nor transformation, präsentiert auf dem Nachwuchsworkshop der Wissenschaftlichen Kommission ÖBWL im VHB, 10.-11. Mai 2023, München, Deutschland.

6. Hesse, L. & & Boenigk, S. (2022). Peer-to-Peer Giving: A Large Empirical Study on Peer Fundraiser as Source of Inspiration, präsentiert auf dem 19. Doktoranden- und Habilitandenkolloquium – „Management Science", 27.-29. Juli 2022, Köln, Deutschland.

7. Hesse, L., & Boenigk, S. (2021). Peer-to-Peer giving: A large empirical study on peer fundraiser as source of inspiration, präsentiert auf dem Nachwuchsworkshop der Wissenschaftlichen Kommission ÖBWL im VHB, 15.-16. September 2021, Freiburg, Deutschland.

Zusätzliche schriftliche Ausarbeitung

1. Alkire, L., Hesse, L., Raki, A., Boenigk, S., Kabadayi, S., Fisk, R. P., & Mores, A. From Theory to Practice: A Collab-orative Approach to Social Impact Measurement and Communication. *European Journal of Marketing*, im Begutachtungsprozess.

From Theory to Practice: A Collaborative Approach to Social Impact Measurement and Communication

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From Theory to Practice: A Collaborative Approach to Social Impact Measurement and Communication

Abstract

Purpose: This article introduces a comprehensive approach for nonprofit organizations (NPOs) to measure and communicate the social impact of their initiatives. Collaboration with a UK-based NPO has resulted in the development of a practical toolkit designed to identify and report social impacts that are typically challenging or difficult to measure.

Design/methodology/approach: Following a three-phase co-creative process model over two years, the project team began by co-defining impact metrics in partnership with an NPO specializing in personalized employment support, language and digital skills training, and job search assistance for refugees. This led to the co-design of a social impact measurement strategy. The final phase involved producing a social impact reporting toolkit that offers comprehensive guidance to bridge existing gaps in measurement practices and empowers NPO employees to effectively measure and communicate social impact.

Findings: The study found that, although the NPO collected extensive data, its focus was primarily on individual-level economic outcomes, often overlooking broader social impact measurements. The co-created toolkit addresses this oversight by providing resources for a holistic assessment.

Practical implications: The toolkit equips NPOs with a user-friendly resource for effectively measuring and communicating the social impact of their initiatives, ensuring that they meet operational and funding criteria.

Social implications: By improving how social impact is measured and communicated, the toolkit can positively influence funding decisions and enhance the support available to refugees, thereby facilitating their integration into host societies.

Originality/value: The article offers an innovative model for collaboration between researchers and practitioners that enhances the understanding and communication of the transformative impact of services for populations experiencing vulnerability. It also showcases successful collaboration that advances research and social impact.

Keywords: Transformative Service Initiatives (TSI), Social Impact Measurement, Nonprofit Organizations (NPO), Refugees.

(Impact) Problem generation and impact to be achieved

Measuring social impact has become crucial for nonprofit organizations seeking to demonstrate the effectiveness of their initiatives, advocate for policy change, and maintain public confidence in the sector. Moreover, donors, granting bodies, and other funding sources increasingly require nonprofit organizations to provide evidence of their impact and demonstrate the value of their work. However, the complex nature of social impact makes it challenging to identify and communicate, particularly when addressing multifaceted issues such as refugee integration. Many nonprofit organizations lack the resources and skills to effectively measure and communicate their social impact, further compounding this challenge.

One context that exemplifies the challenge of measuring and communicating social impact is the labor market integration of refugees through Transformative Service Initiatives (TSIs) provided by nonprofit organizations. TSIs are "activities by organizations (public, private, nonprofit) or volunteers to serve people experiencing vulnerabilities, including long-term challenges (e.g., refugees, …), and try to improve their well-being" (Boenigk et al., 2021a, p. 542). With more than 36 million refugees seeking asylum by mid-2023 (UNHCR, 2024), Refugee focused TSIs can enable refugees to join the workforce and regain a sense of normality. In addition, TSIs create a broader impact on various stakeholders, including mitigating the shortage of skilled workers and improving workforce diversity. However, measuring and communicating the social impact of TSIs remains a significant challenge for nonprofit organizations. Demonstrating the effectiveness of these initiatives is crucial for securing sustained funding, attracting more refugees, and engaging with local communities and businesses.

Our research was conducted in collaboration with a UK-based nonprofit organization (NPO) that has developed and offered TSIs for refugees since 2016. The organization assists approximately 4,000 refugees annually with personalized employment support, language and digital skills training, and job search. They also partner with businesses to create job opportunities tailored to refugees' skills and experiences. We identified the critical challenge of measuring and communicating the social impact through multiple direct discussions with NPO representatives about day-to-day operations over two years. As highlighted by an NPO representative:

"…demonstrating the social impact of our initiatives on refugees and also the partnering businesses becomes crucial in ensuring sustained and future funding from statutory service funders, charity service funders, and corporate funders, however, we do not have a strategy nor the tools to assess social impact systematically." (NPO Statement, February 2024).

This impact article explains how we developed a robust approach for measuring and communicating the social impact of TSIs by co-producing a practical toolkit with our partner NPO. The following sections document our collaborative journey with the NPO to co-create new knowledge and develop the social impact measurement toolkit. This process involves three key steps: (1) co-defining outcomes and impacts, (2) co-designing a social outcome measurement system, and (3) co-producing a reporting toolkit. Throughout this article, we use the term "impact" in two distinct ways. First, as intended in the European Journal of Marketing impact articles (Scott and Mende, 2022), we use "impact" to report the achievements within the research-practitioner collaboration and learning process. Second, the term "(social) impact" refers to the long-term achievements of social projects on family, community, or societal levels, as commonly described in academia (Ebrahim and Rangan, 2014) and practice (Phineo, 2016).

Working with Stakeholders

Collaboration with non-academic stakeholders can take various forms and levels, and successful collaboration often requires ongoing and iterative efforts. The partnership between the research team and the NPO began with a foundational meeting at the 12th SERVSIG conference in Glasgow, UK, in 2022. An employee of our partner NPO participated as a practitioner panelist and shared insights from their work on refugee labor integration. The partnership was further strengthened in June 2023 at the Transformative Consumer Research Conference held at Royal Holloway University of London. The dialogical format of the conference facilitated an in-depth exchange of ideas, allowing the research team to learn about the challenges refugees face in the UK, such as long asylum case processing times, employment restrictions, and language and cultural barriers. The discussions highlighted the NPO's crucial role in enhancing refugees' entry into the workforce, and the challenge of measuring the social impact of these initiatives.

Following the conference, the research team engaged in internal brainstorming sessions and workshops with an NPO representative to develop strategies for social impact measurement. A workshop was held in November 2023 to refine the partnership's strategic direction and goals. In December 2023, the research team and the NPO representative met again to review the identified challenges and strategize solutions, resulting in a decision to hold a collaborative workshop involving the NPO's leadership and case managers. The collaboration reached a pivotal moment in February 2024, with a virtual workshop focused on impact measurement, followed by a virtual workshop in April 2024, to further discuss the co-creation and learning process.

Throughout the partnership, the research team encountered and managed several challenges, including the academic language barrier, the tendency to isolate problems, and coordinating timelines. Working closely together enriched the knowledge of both the research team and the NPO about how social impact was understood, investigated, and achieved. The NPO's leadership and case managers were actively involved in the research process, providing valuable insights and feedback and ensuring the feasibility and relevance of the proposed solutions. The collaboration also highlighted the importance of adaptability and continuous communication when working with non-academic stakeholders. Maintaining an open dialogue enabled the research team and the NPO to navigate challenges, refine their approach, and work more effectively towards their shared mission of supporting refugees.

The knowledge exchange, (co-) creation, and learning process

Through iterative discussions and workshops with the NPO's leaders and case managers (as discussed in Section 2), we extensively explored different perspectives on the social impact of the NPO's work and what a complementary measurement strategy could look like. Drawing on this information, we designed a collaborative strategy for knowledge exchange and the co-creation process in line with the EJM's call for "co-problematizing, co-designing, and co-producing constitutive practices with non-academic stakeholders." Our collaboration was structured along a three-phase co-creation process.

Phase 1: Co-define impact

In this initial phase, we engaged in discussions with the NPO's leaders and case managers to explore different perspectives on defining the term 'impact.' This foundational step was not a one-time event but an ongoing dialogue that began in June 2022 and continued to evolve as we delved deeper into the subject matter. Our knowledge exchange taught us how the NPO measures and communicates its impact. The NPO shared that they currently define their impact using the terms 'output' and 'outcomes,' with outputs referring to tangible metrics such as hours of support provided by the NPO to the involved corporate business partners, and outcomes encompassing achievements relevant to both refugees and partner businesses.

In turn, we shared with the NPO that there is an ongoing debate in academic circles regarding both the conceptualization and measurement of impact. Some authors define impact as a significant change in people's lives at the individual level. By contrast, others use the term to describe long-lasting results and achievements at the community or societal level (Ebrahim and

Rangan, 2014). This aligns with the framework proposed by Phineo (2016), which is a think tank that helps NPOs improve their social impact. Phineo distinguishes between inputs (what is invested in a project), outputs (services and products offered), outcomes (results at the individual level), and impacts (results of a project on the societal level).

Through iterative dialogue, we agreed to adopt Phineo's framework, which distinguishes between individual-level outcomes and societal-level impacts. A critical insight from this process was the significance of accounting for both 'hard' and 'soft' outcomes in impact assessment. 'Hard' outcomes, such as clients entering employment, receiving promotions, or starting education or training courses, provide tangible evidence of the organization's effectiveness in supporting refugees' integration and employment goals. Conversely, 'soft' outcomes, captured through client self-assessment surveys, offer valuable insights into the personal growth and well-being of the clients, which are equally important aspects of the organization's impact.

In addition to discussions, we also reviewed the impact reports that the NPO shared with us or were available on their web page. Our knowledge exchange revealed the NPO's current impact reporting practices, including comprehensive yearly impact reports that provide a detailed breakdown of the organization's reach and effectiveness, showcasing both quantitative measures and qualitative client testimonials. This understanding of the NPO’s existing approach informed our collaborative efforts to design and implement a robust social impact reporting toolkit.

As we moved forward, we shifted from an initial focus on quantitative measures to a more holistic view that encompassed both ‘hard’ and ‘soft’ outcomes and recognized the importance of capturing the human stories behind the numbers. This shift was essential for crafting a shared vision for the impact measurement strategy and reporting toolkit, which was rooted in the lived experiences of the NPO and their clients. The insights gained during this phase guided our subsequent co-design and co-producing phases.

Phase 2: Co-design a social impact measurement strategy

In early 2024, we built upon our foundational understanding by co-designing a social impact measurement strategy after a highly successful workshop with the NPO leadership. As a first step, the research team outlined the conceptual underpinnings of prior Transformative Service Research (TSR). We highlighted TSR's evolution from Transformative Consumer Research, emphasizing its role in enhancing human well-being through service (Anderson et al., 2013). Specifically, we referenced Nasr and Fisk’s (2018) study on TSR's significance in addressing

the complex challenges of the refugee crisis. They noted a missing perspective in service research on the global refugee crisis. Nasr and Fisk advocated focusing on "relieving suffering" as a more apt TSR perspective for aiding refugees. Additionally, we clarified to our NPO partner the distinctions made between individual, family/community, and societal levels in Boenigk et al.'s (2021a) refugee service experience framework, which are pivotal for our measurement strategy.

Importantly, we agreed to adopt the "3A integration process framework" for structuring our strategy, as detailed by Boenigk et al. (2021b). By adopting this framework, we structured our strategy around the Awareness, Alignment, and Access phases. These phases describe refugees' journey from post-arrival awareness to securing employment, which is pivotal for their integration. Figure 1 outlines a three-phase approach to refugee integration facilitated by the TSI.

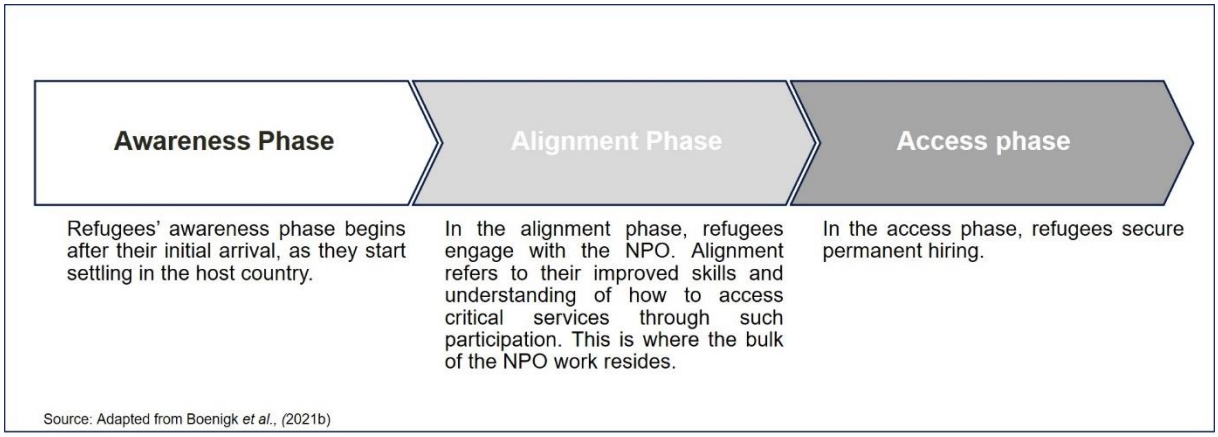

Figure 1. The 3A Integration Process

The first phase is the "Awareness Phase," where refugees begin their journey post-arrival as they settle in the host country. This phase is crucial for refugees to become aware of their new environment and their available resources. The second phase is the "Alignment Phase," which is central to the process. In this phase, refugees engage with the TSI to improve their skills and understanding of accessing critical services. This phase is the core of TSI's work, where significant effort is invested in helping refugees align their abilities and knowledge with the host country's labor market and society requirements. The third and final phase is the "Access Phase," where the ultimate goal is for refugees to secure permanent employment. This phase marks the successful culmination of the integration process, as refugees achieve stable employment and presumably become self-sufficient members of the host society.

We agreed to adopt the 3A integration structure to co-design the measurement strategy. The research and NPO team focused on assessing impact primarily during the Alignment and Access phases. In both phases, we reflected on the importance of the current outcomes and impact measures and discussed their suitability for a social impact measurement strategy.

During the alignment phase, the NPO focuses on preparing refugees for labor market integration, with outcomes centered on improving language skills, application readiness, and job interview preparation. These outcomes can be translated into measurable indicators such as the number of applications submitted and invitations received for job interviews. Conversely, in the access phase, the primary goal of the NPO is to fulfill its mission and ensure refugees' entry into the job market or higher education. Here, the outcomes related to employment and educational attainment take precedence.

Our research team's observations echo a common issue highlighted in the literature. While the NPO collects extensive data, its focus remains primarily on individual-level economic outcomes rather than on encompassing broader social impact measurement. As agreed upon earlier, social impact measurement entails assessing and quantifying the societal effects or outcomes of a specific intervention, program, or initiative. This process systematically evaluates how an organization's activities contribute to positive changes within society or among specific target populations beyond only focusing on the individual level. Our discussion concluded with a consensus that the existing indicators used by the NPO are not designed to capture broader social impacts. Based on insights from our partner NPO, we identified several challenges that need to be addressed within the new measurement strategy:

- **Challenge 1:** The partner revealed divergent measurement preferences among stakeholders (local governments, grant bodies, corporate partners, etc.). While these stakeholders often focus on tracking individual-level outcomes such as employment or education access, the NPO highlighted the significance of softer metrics related to refugees' well-being. They advocated empowering refugees to establish their definitions of "meaningful employment," considering the ideal job and the value of workplace engagement and personal development.

- **Challenge 2:** The NPO identified challenges in collecting qualitative data. Despite utilizing case studies and focus groups, there was a clear desire for more qualitative insights aligned with good research practice in their impact measurement approach.

- **Challenge 3:** More comprehensive overviews of available measurement tools, including online surveys, key performance indicators, interview guidelines, and measurement scales, are lacking.

- **Challenge 4:** Selecting and utilizing appropriate statistical analyses proved challenging. Our NPO partner noted that the research team's expertise could be particularly valuable in this area.

When inquiring how we, as a research team, could contribute to their social impact measurement efforts, our NPO partner emphasized the importance of providing a practical toolkit. This toolkit should offer guidance on data collection for social impact measures, focusing on both quantitative and qualitative data, and provide templates for reporting and analysis. Crucially, the toolkit should be accessible and understandable to all workers, whether they are part of the data team requiring in-depth analysis or client or corporate partner workers needing guidance on data collection methods.

Throughout the process, we worked closely with the NPO to develop recommendations to ensure a comprehensive social impact assessment, focusing on achieving the best possible well-being outcomes for all stakeholders involved. This strategy involves measuring and understanding the more profound implications of our study and its resonance in the real world. Prompted by stakeholder input, researchers and practitioners found themselves compelled to reevaluate their understanding of impact, with researchers often focusing on long-term impact—a challenging metric to measure—while practitioners predominantly engaged with more short-term outcomes, which, while valuable, may not fully capture social impact.

Phase 3: Co-produce a concrete social impact reporting toolkit.

We co-produced a concrete reporting toolkit based on the identified challenges and requirements from February to April 2024 (see Figure 2 for the toolkit structure and Figure 3 for details). This process involved several meetings and iterative design sessions with key informants from the NPO team. The toolkit was crafted to measure and assess the social impact of initiatives more effectively. Together with the NPO, we developed and agreed on the following objectives for the toolkit:

- Comprehensive guidance: The toolkit provides step-by-step instructions, customizable templates, and interactive training opportunities to enable the NPO's employees to measure and assess the broader social impacts of their labor market integration initiatives. It offers guidance for incorporating new scales and research indicators that are more aligned with social impact measurement.

- Bridging the gap: The toolkit facilitates evidence-based decision-making and fosters a deeper understanding of the social outcomes generated by refugee integration programs by offering practical resources and guidance.

- Empowering employees: Through accessible language and a user-friendly approach, the toolkit seeks to empower practitioners at all levels of expertise, enhancing their social impact measurement practices and enabling them to derive actionable insights from data.

The co-produced toolkit consists of five modules (see Figure 2).

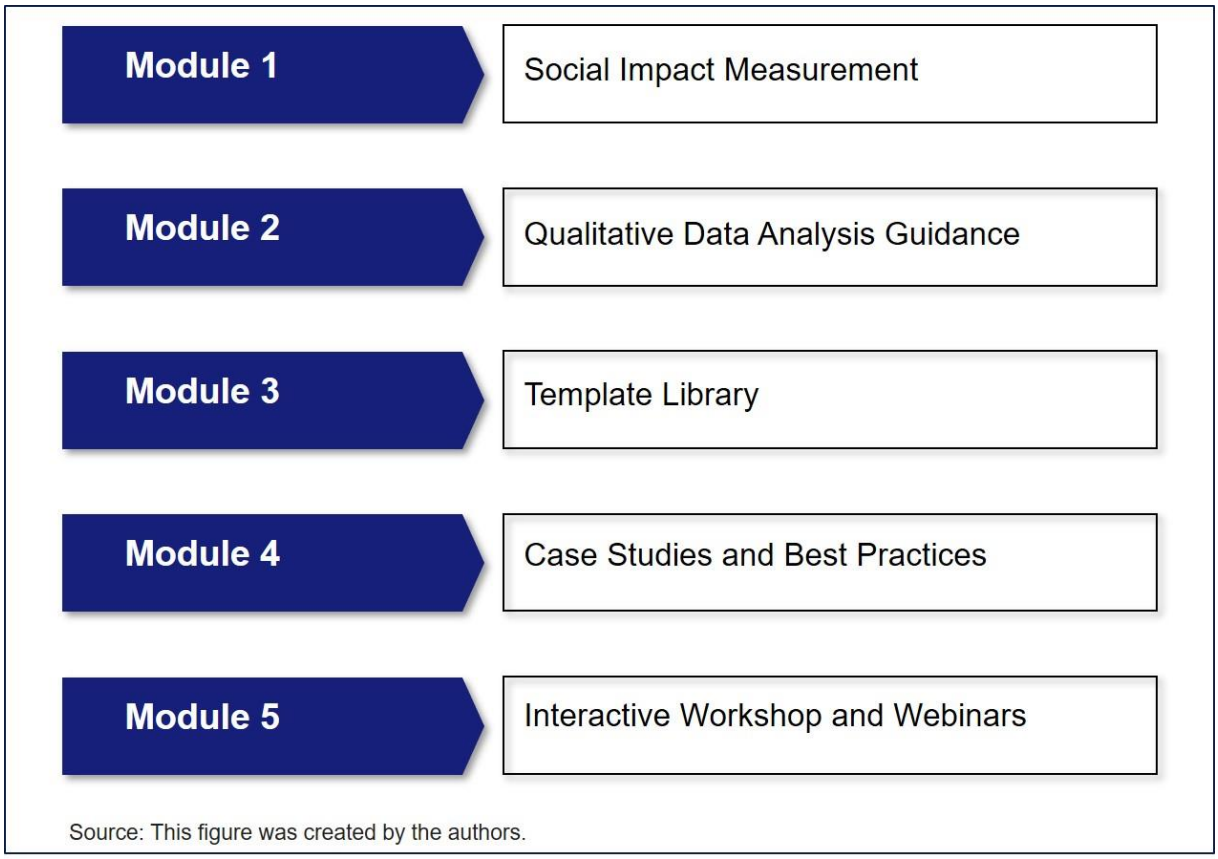

Figure 2. Co-Produced Social Impact Reporting Toolkit Structure.

Module 1: Social Impact Measurement

- Comprehensive guide: This section provides instructions for identifying and measuring broader social impacts, including new concepts, scales, and indicators derived from research on refugee integration.

- Templates: This section offers customizable templates for assessing social impacts such as community integration and well-being. These templates can be adapted to suit the specific needs and contexts of different refugee programs.

- Data analysis tools: This section includes resources and tutorials for analyzing social impact data, such as identifying trends, correlations, and patterns in social outcomes. Further, it involves analysis for the data team concerning uplift modeling, which allows for tackling the specifically mentioned problem of measuring the impact of single interventions without having a control group.

Module 2: Qualitative Data Analysis

A primary challenge in impact measurement is the decentralized nature of qualitative data collection, making it crucial for all employees to adhere to a uniform standard.

- Interviewing techniques: This section offers practical guidance for conducting qualitative interviews with refugees by covering topics such as building interview guidelines, asking open-ended questions, and collecting deeper insights. Tips on transcribing interviews and organizing qualitative data are also provided.

- Focus group facilitation: This section outlines best practices for facilitating focus group discussions with refugees, including creating a safe and inclusive environment, managing group dynamics, and eliciting rich qualitative data. Sample discussion guides and icebreaker activities are included to assist facilitators.

- Qualitative data analysis software: This section introduces qualitative data analysis software, such as MAXQDA, with tutorials on coding qualitative data, identifying themes, and drawing meaningful conclusions from textual data.

Module 3: Template Library

- Standardized templates: This section provides ready-to-use templates for consent forms, interview guides, focus group protocols, and observation checklists that ensure ethical standards and support systematic data collection.

- Reporting templates: This section includes sample reporting templates to guide users in summarizing quantitative findings, presenting qualitative insights, integrating both types of data into comprehensive impact reports for stakeholders, and ensuring consistency and clarity in the reporting.

Module 4: Case Studies and Best Practices

- Success stories: This section features case studies of successful interventions and impact measurement strategies implemented by other organizations, showcasing best practices and lessons learned in refugee labor market integration.

- Expert insights: This section includes interviews with experts in refugee integration and impact measurement, who offer valuable insights and guidance for practitioners.

Module 5: Interactive Workshops and Webinars

- Virtual Training Sessions: This module enables the NPO to host interactive workshops and webinars covering social impact measurement methodologies, data collection techniques, and analysis approaches. These sessions offer opportunities for hands-on activities and discussions with field experts.

Key impact outcome

The key impact outcome of our collaboration with our partner NPO is the provision of a co-produced social impact reporting toolkit consisting of five modules. This toolkit is designed to empower the NPO to effectively measure and communicate their impact to different stakeholders, thereby enhancing their ability to secure funding and sustain their important work. The completed toolkit was presented to the NPO in April 2024. The presentation was designed to introduce the features and intended applications of the new tool. We then collaborated to refine Module 1: Social Impact Measurement of the toolkit, ensuring that it precisely met the NPO's operational needs and work realities.

Figure 3 summarizes the prior and suggested impact measurement tools and outcomes. This comparative format helps highlight how the new approaches may offer improvements, such as more accurately capturing social impact, providing more actionable insights, or aligning more closely with the latest research and best practices in the field. Specifically, the table contrasts the prior methods and metrics used by the NPO with those newly recommended by the research team.

As mentioned earlier, the NPO's current measurement focuses on hard outcomes (Key Performance Indicators) on an individual level such as the number of refugees in employment, training, or internships. The new measurement toolkit additionally suggests measuring soft outcomes such as job satisfaction, job commitment, job quality, and perceived qualification-job position fit, for example, in an annual online survey. Self-reported outcomes, such as language improvements, should be additionally measured by professional language certificate tests. However, the main improvement suggested is to measure social impact on a family, community, as well as societal level which is not yet a part of the NPO partner’s social impact measurement strategy. Methodologically, we suggested conducting qualitative interviews with family and community members or conducting family well-being surveys. On a societal level, observable UK labor market panel data could be used and analyzed to determine if the proportion of refugees in employment increased over time and thereby helped to tackle the shortage of skilled workers in the UK.

	Prior outcomes (based on NPO impact report)	Prior measurement Tool	Suggested social impacts in TSI / Impact research	New co-designed measurement tool (additional to prior outcomes)
Refugee related outcomes (Individual level)	**No. of refugees in** • Employment • Training • Volunteering or internships	*Key indicator in CRM System*	Job satisfaction Job commitment Job quality	Annual survey, questions based on standardized scales used in research
	No. of refugees in education	*Key indicator in CRM System*	*No adaption required*	
	No. of refugees supported	*Key indicator in CRM System*	*No adaption required*	
	No. refugees changing their job **No. of refugees having a promotion**	*Key indicator in CRM System | Self-reported*	Qualification-job position fit	Survey administered before job entry and repeated one year into employment (same questions)
	Improved skills (Language improvement; technology usage)	*Key indicator in CRM System*	Certificates of language improvement (no self-reporting)	Pre-and post-assessments after participation in relevant trainings
	Improved confidence	*Self-reported*	Individual well-being scale	Surveys and narrative interviews
	Perceived chance of finding a position/employment	*Self-reported*	Perceived job readiness	Focus group interviews on job research experiences, perceived barriers | Pre-post training surveys
	Refugees understanding of workplace culture	*Self-reported*	Diversity in team structure	Assessment by corporate partner Observable data of demographics
			Refugee integration scale	Survey with standardized scale
New impact measures on a family/community, and societal level	**Social impact on family level**	*Not measured*	Family stability family life satisfaction	Family well-being surveys to assess changes in family stability and life sat.
	Social impact on community level	*Not measured*	Community well-being access to health crime rates	Interviews Observable (government data) Observable (government data)
	Social impact on societal level	*Not measured*	Reduced of skilled worker shortage in the UK Public attitudes towards refugees economic outcomes	Monitor recruitments trends, workforce data, job vacancies Opinion polls and media coverage

Source: This figure was created by the authors.

Figure 3. Prior and suggested impact measurement tools and outcomes.

In addition to providing a comprehensive toolkit and refining social impact measures, as is evident in Figure 3, this research also has a significant impact on the data team of the partner NPO. It provides them with standardized scales commonly used in research, which they found particularly valuable given the challenge of sourcing reliable and valid measures. Similarly, the workshops facilitate collaboration among various employees within the NPO, offering different departments a platform to exchange knowledge on their respective practices and where they see room to measure their impact.

Taken together, this project initiated a form of capacity building within the partner NPO by enhancing their capacity to effectively measure and communicate social impact. By developing skills and consolidating them into a toolkit comprising multiple modules for various social impact-related inquiries, knowledge retention is ensured, and guidelines are established for all departments.

Finally, we also discussed how long it will take to systematically realize the new measurement tool with respect to the content of all five modules one by one. Given the NPO's constraints and typical project cycles, we anticipate that fully realizing and assessing the actual impact of the toolkit may take approximately 3 to 5 years, as indicated by the NPO. The co-creative process has begun, and while it is unfolding, our ongoing support and adaptation to the NPO's feedback remains pivotal. Finally, we continue to obtain feedback from the NPO on the tool's utilization and assess its impact on their initiatives. This ongoing feedback is instrumental in evaluating the toolkit's effectiveness, leading to any necessary adjustments. We believe that this co-produced toolkit, while being customized to meet specific needs and refined in collaboration with our nonprofit partner, has the potential to serve as a valuable resource for knowledge exchange for several TSIs focusing on refugee labor integration, among others.

Ethics of impact

We acknowledge the significant ethical challenges in conducting research that seeks to help refugees (Hugman et al., 2011). While our academic team faced various challenges when collaborating with the NPO and its employees (as discussed in Section 2), ongoing conversations, active listening, and empathy during workshops and meetings helped both sides overcome these challenges, thus enhancing our collaboration. We acknowledge that regardless of the challenges, the rights and interests of refugees must be the primary motivation of our research team, as it is with our partner NPO. Our research team collaborated with the partner NPO to co-define the impact that aligns with their work and determine the most effective methods for measuring

this impact. We declare that our partner NPO owns both the impact and its measurement. At the request of our partner NPO, we have protected the identities of the organization, its employees, and the refugee clients they serve.

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C. Liste der Einzelarbeit und Selbstdeklaration

Der Verband der Hochschullehrer und Hochschullehrerinnen für Betriebswirtschaftslehre e.V. benennt folgende Kriterien zur Autor:innenreihenfolge einer wissenschaftlichen Studie: Ideengenerierung, Literatursuche, Forschungsdesign, Datenerhebung, Datenauswertung, Schreiben, Konferenzbeiträge, Einreichung und Revisionen.

Die Promotionsordnung der Fakultät für Wirtschafts- und Sozialwissenschaften vom 18. Januar 2017 sieht neben dem Gesamttitel und dem verbindenden Kapitel folgende Punkte als elementare Teile einer in kumulativer Form abgefassten Dissertation an. Erstens ist gemäß § 6 Abs. 2b eine Liste der Titel und Ko-Autorinnen bzw. Ko-Autoren der Einzelarbeiten vorzulegen. Zweitens ist gemäß § 6 Abs. 3 im Falle von schriftlichen Promotionsleistungen, die in Zusammenarbeit mit anderen Wissenschaftlerinnen und Wissenschaftlern entstanden sind, der Doktorand verpflichtet, seinen Anteil bei Konzeption, Durchführung und Berichtsabfassung im Einzelnen darzulegen, so dass der Anteil des Doktoranden eindeutig abgrenzbar und bewertbar ist. Diese Punkte finden sich in folgender Übersicht wieder und wurden mit den am Artikel beteiligten Ko-Autorinnen und Ko-Autoren einvernehmlich abgestimmt. Die Einschätzung des geleisteten Anteils erfolgt mittels Punkteinschätzung von 1 – 100 Prozent.

	Titel der Dissertationsbeiträge	**Selbstdeklaration**	
		Geleisteter Beitrag der Doktorandin	
1	Hesse, L., & Boenigk, S. What makes peer fundraiser successful? Examining peer-to-peer fundraising success in the context of peer-to-peer nonprofit-business collaboration. *Nonprofit Management and Leadership.* **Status:** Akzeptiert; VHB JOURQUAL 4: B; Impact Factor: 2.8.	Konzeption Durchführung Berichtsabfassung	50 % 50 % 50 %
2	Hesse, L., & Boenigk, S. (2023). Donor inspiration in nonprofit management: Conceptualization and measurement in a peer-to-peer context. *Nonprofit Management and Leadership, 34(2), 241-265.* Status: Veröffentlicht; VHB JOURQUAL 4: B; Impact Factor: 2.8.	Konzeption Durchführung Berichtsabfassung	50 % 50 % 50 %
3	Hesse, L. Transforming peer donors into organizational donors: Understanding and managing peer donor transformation. *Nonprofit Management and Leadership.* **Status:** Akzeptiert; VHB JOURQUAL 4: B; Impact Factor: 2.8.	Konzeption Durchführung Berichtsabfassung	100 % 100 % 100 %
4	Hesse, L., Bernardic, U., & Ugazio, G. Explaining peer-to-peer fundraising through social discounting *Journal of Consumer Psychology.* **Status:** Eingereicht. VHB JOURQUAL 3: A; Impact Factor: 4.8.	Konzeption Durchführung Berichtsabfassung	33 % 33 % 33 %
5	Van Teunenbroek, C., Della Chiesa, C., & Hesse, L. (2023). The contribution of crowdfunding for philanthropy: A systematic review and framework of donation and reward crowdfunding *Journal of Philanthropy and Marketing, 28(3), e1791.* **Status:** Veröffentlicht; VHB JOURQUAL 4: C; Impact Factor: 1.15.	Konzeption Durchführung Berichtsabfassung	33 % 33 % 33 %
6	Alkire, L., Hesse, L., Raki, A., Boenigk, S., Kabadayi, S., Fisk, R. P., & Mores, A. From Theory to Practice: A Collaborative Approach to Social Impact Measurement and Communication. *European Journal of Marketing.* **Status:** Im Begutachtungsprozess; VHB JOURQUAL 3: C; Impact Factor: 2.8.	Konzeption Durchführung Berichtsabfassung	15 % 15 % 15 %

Erklärung und Eidesstattliche Versicherung

Erklärung

Hiermit erkläre ich, Laura Sophie Hesse, dass ich keine kommerzielle Promotionsberatung in Anspruch genommen habe. Die Arbeit wurde nicht schon einmal in einem früheren Promotionsverfahren angenommen oder als ungenügend beurteilt.

Hamburg, den 15. Juli 2024 Unterschrift

Eidesstattliche Versicherung

Ich, Laura Sophie Hesse, versichere an Eides statt, dass ich die Dissertation mit dem Titel „Advancing Peer-To-Peer Fundraising Research: Conceptual and Empirical Insights from Multi-Actor Perspectives“ selbst und bei einer Zusammenarbeit mit anderen Wissenschaftlerinnen oder Wissenschaftlern gemäß den beigefügten Darlegungen nach § 6 Abs. 3 der Promotionsordnung der Fakultät Wirtschafts - und Sozialwissenschaften vom 18. Januar 2017 verfasst habe. Andere als die angegebenen Hilfsmittel habe ich nicht benutzt.

Hamburg, den 15. Juli 2024 Unterschrift