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Covid-19 Disaster relief projects management: an exploratory study of critical success factors

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Abstract

The COVID-19 pandemic has caused unprecedented socio-economic devastation. With widespread displacement of population/ migrants, considerable destruction of property, increase in mortality, morbidity, and poverty, infectious disease outbreaks and epidemics have become global threats requiring a collective response. Project Management is, however, a relatively less explored discipline in the Third Sector, particularly in the domain of humanitarian assistance or exploratory projects. Via a systematic literature review and experts' interviews, this paper explores the essence of humanitarian projects in terms of the challenges encountered and the factors that facilitate or hinder project success during crises like Covid-19. Additionally, the general application of project management in international assistance projects is analysed to determine how project management can contribute to keeping the project orientation humane during a crisis. The analysis reveals that applying project management tools and techniques are beneficial to achieve success in humanitarian assistance projects. However, capturing, codifying, and disseminating the knowledge generated in the process and placing the end-users at the centre of the project life cycle is a prerequisite. While the latter can seem obvious, the findings demonstrate that the inadequate inclusion of beneficiaries is one of the main reasons that prevent positive project outcomes leading to unsustainable outcomes. The key finding of this paper is that the lack of human-centred approaches in project management for humanitarian assistance and development projects is the main reason such projects fail to achieve desired outcomes.

1 Introduction

The destructive capacity of natural and artificial disasters increases continuously, affecting millions of people globally (Kuvshinov 2014). In 2016, 564.4 million people were reportedly affected by natural disasters, the highest since 2006 (Guha-Sapir et al. 2017). The World Health Organization (WHO) declared COVID-19 as a pandemic on March 11, 2020, having around 3 million cases and causing 207,973 deaths (WHO, COVID-19: Situation Report). A Brookings's

report¹ on socio-economic impact of COVID-19 notes that causing global economy to contract by 3.5 percent it brought about one of the deepest recessions of modern times. According to an ILO report², COVID-19 led to a loss of 8.8 per cent of global working hours roughly amounting to 255 million full-time jobs in 2020 compared to last quarter to 2019. As of June 2021, the COVID-19 outbreak had spread to 215 countries and territories across six continents causing over 3.9 million deaths.³ Given the vulnerability of nations to hazards like Covid-19, International Aid (IA), also known as International Development (ID), has become increasingly important especially for less developed countries (Fink and Redaelli 2010).s The United Nations (UN) has suggested that the developed economies spend at least 0.7% of their gross national income on international assistance (Myers

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¹ <https://www.brookings.edu/wp-content/uploads/2021/06/Social-and-economic-impact-COVID.pdf> accessed 24 June 2021

² https://www.ilo.org/wcmsp5/groups/public/@dgreports/@dcomm/documents/briefingnote/wcms_767028.pdf accessed 24 June 2021

³ <https://www.statista.com/statistics/1093256/novel-coronavirus-2019ncov-deaths-worldwide-by-country/> accessed 24 June 2021

2015). Much of this assistance ends up financing projects managed by the Third sector, including international, national and local non-governmental organisations (NGOs), charities and other voluntary groups (Marlow 2016).

NGOs are private organisations characterised by humanitarian objectives "that pursue activities to relieve suffering, promote the interest of the poor, protect the environment, provide essential social services, or undertake community development" (World Bank 1995). These organisations are key contributors to international assistance (Morton 2013), which is broadly divided into two categories: Official Development Assistance (ODA) and Humanitarian Assistance (HA), also referred to as emergency aid. HA projects have the overall goal of providing an immediate response as fast and effectively as possible. Nevertheless, the time scale and particular goals are less specific because of the spontaneous nature of these events and the available information (Lindell and Prater 2002). In this sense, HA projects fall into the category of exploratory projects, for which 'neither the goals nor the means to attaining them are clearly defined' (Lenfle et al. 2019). The loose definition of deliverables, the scope, and the recovery scale makes these projects challenging (Walker 2011). Additionally, a lack of Project Management (PM), cultural sensitivity, and stakeholder involvement contribute to high failure rates and unsatisfactory performance for these projects (Golini et al. 2015).

For exploratory projects, neither the output nor the means to attain it can be established from the beginning. Given their increasingly significant impact, however, it is prudent to develop a scientific understanding of the projects management challenges and success factors for the exploratory projects. Therefore, this research aims to investigate via template analysis of the relevant qualitative data, the ontology of humanitarian aid projects, and the effect that project management implementation could have on their success for such projects. More specifically, we review the literature and case studies on humanitarian projects by NGOs to identify the main challenges in achieving favourable HA project outcomes and factors that promote project success or contribute to project failure. We also explore the PM procedures, tools, and frameworks used for International Development and how these influence the cognitive⁴ aspects of humanitarian projects; and revisit the link between PM and human-centred design in the Third Sector. We find that applying project management tools and techniques are beneficial to achieve success in humanitarian assistance projects. However, knowledge generation, storage, and sharing and end-user-centric projects' design and execution throughout the project life cycle are major critical success factors. The

findings also highlight that the inadequate consideration of beneficiaries' identity, expectation, and role is one of the main reasons preventing positive project outcomes from leading to sustainable outcomes. Our findings contribute to the literature in three ways. First, it explores the extension of the application of PM tools and techniques to a much important phenomenon of humanitarian assistance projects, especially during the current Covid-19 crisis. Second, relying on PM and design thinking literature, we explore more pragmatic design and execution choices that bring project output/ deliverables and outcomes closer. Thirdly, through literature review, case studies, and expert interviews, our study highlights some critical success and failure factors in humanitarian assistance projects. The rest of the paper is organised as follows. Part two presents the literature review, followed by the methodology and findings, followed by the conclusion.

2 Literature review

2.1 Crisis and humanitarian aid project management

Relief projects carry an "acute sense of urgency", and their results are critical to people's livelihood in the affected communities (Steinfort and Walker 2011). The challenge is to minimise human suffering and death (Noham and Tzur 2017) and do so in an often hostile and uncertain environment, where violence, socio-political instability, disease, other health hazards, panic, and chaos are encountered. Other obstacles include lack-of or poor communication and transportation infrastructures (Dufour et al. 2016), different cultural norms and rules, complex issues of autonomy and control and managing productive cooperation with governments and other organisations (Steinfort and Walker 2011).

According to Bysouth (2017), project management is a relatively new discipline in the Third Sector. Despite the limited information regarding the adoption of PM methodologies by NGOs (Golini et al. 2015), several authors agree that PM expertise can be employed as a possible remedy for the poor performance of ID projects (Landoni and Corti 2011; Golini and Landoni 2014). Moreover, guidelines such as PMDPro and PM4DEV have been developed explicitly for NGO management of these projects (Table 1). However, recent empirical studies note widespread adoption of few PM tools, viz., Logical Framework (LogFrame) and Progress Reports and almost none of few such as Earned Value Management System and Issue Logs (Golini et al. 2015). LogFrame provides the goals, measures and expected resources for each level of the means-to-end logical path, laying out the way between vision, overall and specific objectives, desired outputs and outcomes through its detailed breakdown of the chain of causality among

⁴ The process of acquiring knowledge through thought, experience and/or senses (New Oxford American Dictionary, 2010).

Table 1 Comparison of Processes of Project Management Methodologies; Source: Adapted from Kelecklaite and Meiliene (2015)

	PMBOK GUIDE	PM4NGO	PM4DEV
Process Integration Management			
Project Scope Management			
Project Time Management			
Project Cost Management			
Project Quality Management			
Project Human Resource Management			
Project Stakeholders Management			
Project Communication Management			
Project Justification Management			
Project Risk Management			
Project Procurement Management			
Project Contract Management			

143 activities. Moreover, Monitoring and Evaluation (M&E) sup-
 144 ports learning, governance and performance accountability
 145 (Steinfort and Walker 2011). It also includes the evaluation
 146 criteria- relevance, effectiveness, efficiency, impact and sus-
 147 tainability- to ensure appropriate monitoring and control
 148 (OECD 2011).

149 Research has shown that lack of expertise and plan-
 150 ning (Alexander 2002), poor coordination, duplication of
 151 services, and inefficient use of resources (Kopinak 2013),
 152 inadequate beneficiary involvement has hindered positive
 153 outcomes (Brown and Winter 2010). Coupled with Linking
 154 Relief, Rehabilitation and Development (LRRD) omission,
 155 this has often provided unsustainable solutions (Kopinak
 156 2013). These interspersed layers demonstrate that humani-
 157 tarian management cannot be improvised and that planning
 158 is relevant at all stages of the Disaster Cycle (Alexander
 159 2002; Steinfort and Walker 2011). The professionalisation
 160 of humanitarian response is thus inevitable due to the add-
 161 ing layers of complexity that resulted from growing levels
 162 of stakeholders and poor management skills (Shanks 2014).

163 **2.2 Defining project success**

164 Project management focuses on delivering change via unique
 165 sets of concerted actions (Tantor 2010). Unlike general man-
 166 agement, where almost everything is routine, almost every-
 167 thing is an exception (Meredith et al. 2014). Each project is
 168 unique and temporary, with a definite start and end (Tayntor
 169 2010). The end of a project can be defined when the desired
 170 output is delivered or when the output can no longer be deliv-
 171 ered, or when there is no more need for the project (PMI 2010).
 172 These endeavours aim to create a unique product or deliver
 173 a unique service or result. It is possible to have repetitive

174 elements, but repetition does not take away the uniqueness
 175 of a project because the mix of elements is unique to each
 176 project (PMI 2008). Therefore, projects can also be considered
 177 generators of value (Winter et al. 2006) and explicit and tacit
 178 learning, as their uniqueness provides a foundation for captur-
 179 ing new knowledge (Zollo and Winter 2002).

180 The definition of project success is ambiguous due to the
 181 different characteristics, perspectives, interest, and objec-
 182 tives of the stakeholders involved (Fig 2). Nonetheless, the
 183 essential requirement of project success is achieving the
 184 project objectives/outputs within a defined budget, qual-
 185 ity, and time. Project output can be defined as the product,
 186 service or result that the project was expected to generate.
 187 Furthermore, many authors suggest that project success is
 188 multidimensional, and that project outcome should also
 189 be considered when determining success (Rodrigues et al.
 190 2014). That is particularly relevant in the case of exploratory
 191 post-crisis projects, for which neither the output nor
 192 the means to attain it can be established from the begin-
 193 ning (Lenfle 2014). This multidimensional outlook reflects
 194 project success and the project ' manager's responsibilities,
 195 including managing time, cost, quality and human resource,
 196 integration, communication, project design, procurement,
 197 and risk management (Radujkovic and Sjekavica 2017). The
 198 uniqueness of each project also requires the project manager
 199 to be creative, flexible, and highly adaptable. Special skills
 200 such as conflict resolution and negotiation are also required
 201 due to the high level of discontent present in these projects.

202 Project management success does not guarantee that the
 203 project output will lead to a successful outcome (Steinfort
 204 and Walker 2011; Kopinak 2013). The project outcome is
 205 the change produced as a consequence of the delivery of
 206 such output. Unfortunately, in HA projects, outputs are often
 207 delivered accordingly but still fail to provide a successful
 208 outcome. Project success might be initially perceived as
 209 achieved in such cases, yet project outcome might demon-
 210 strate the opposite (Brown and Winter 2010). This occurs
 211 when hard⁵ and soft⁶ services fail to transform the output
 212 into a functioning outcome (Steinfort and Walker 2011);
 213 perhaps because the output lacked the infrastructure to sup-
 214 port its use or because it failed to consider the 'beneficiaries'
 215 needs, culture, behaviour, the context of their lives (Brown
 216 and Winter 2010). The latter has been recognised as a con-
 217 sequence of the ambiguous definition of target customer or
 218 beneficiary in HA projects, leading to their exclusion in the
 219 project design phases and considerable project execution

5 “Hard” services refer to transportation links, water, electricity, etc. (Steinfort and Walker 2011).

6 “Soft” services involve the activities that help the community return to normal life, such as restoring dignity and morale of the community and providing help to overcome the trauma of the catastrophe (Steinfort and Walker 2011).

220 errors (Golini et al. 2015). To this end, the literature suggests
 221 referring to the end-user as a consumer over the word ben-
 222 eficiary". Although both terms may be used interchangeably,
 223 researchers suggest that the latter can infer that recipient
 224 who do not pay for the services shall have unquestionable
 225 gratitude and, therefore, no right to choose or be informed,
 226 leading to poor recipient involvement projects (Khan 2015).
 227 Steinfort and Walker (2011) argue that project success can
 228 be linked with the degree of customer value generated from
 229 the project. The real value is the output combinations that
 230 lead to a specific outcome, which allows the stakeholders to
 231 perceive that the project deliverables have been achieved.
 232 However, the natural outcome of the project is to generate
 233 customer value. The diversity of stakeholders and the dif-
 234 ferent perception of values (Rodrigues et al. 2014) and a
 235 lack-of or poor inclusion of beneficiaries in project design
 236 (Golini et al. 2015) further hinder consensus in defining HA
 237 projects success.

238 2.3 Critical success factors

239 Planning is considered desirable in achieving success, espe-
 240 cially among HA projects during Crisis like Covid-19 (Taylor
 241 2010). Plans must be robust and granular yet flexible enough
 242 to adapt to different circumstances. NGOs and other organisa-
 243 tions such as civil protection agencies have set up measures of
 244 natural disaster response based on their magnitude, recurrence,
 245 physical and human consequences, and the duration of their
 246 impact. Additionally, technology has become a vital tool in
 247 managing disasters (Alexander 2002). It was evident during
 248 the Covid-19 crisis as to how the biotechnology, data stor-
 249 age and analytical technology, and communication technol-
 250 ogy allowed the primary responders, frontline workers, and
 251 researchers to work together to arrive at standard operating
 252 procedures and share them with relevant stakeholders across
 253 the globe in a relatively short time. International recognition
 254 and acceptance of a set of common principles are essential to
 255 stimulate humanitarian aid project design, innovation, account-
 256 ability and effectiveness, and the implementation of best tools
 257 and approaches (Scott 2014).

258 Despite the diversity in stakeholders, antecedents and
 259 consequences, and desired outcomes (Alexander 2002),
 260 the lessons and results captured from previous projects
 261 can serve as a blueprint for planning and implementation
 262 (Lampel et al. 2009). Explicit knowledge can be expressed
 263 and formalised into frameworks or formal " know-how"
 264 procedures and instructions, which can later be integrated
 265 into the organisation/field/team methods. On the other hand,
 266 tacit knowledge, the skills, or experience acquired through
 267 practice, may be shared through training programs/ orienta-
 268 tions or on-the-job simulations and training. Each form of
 269 knowledge can serve as a tool to acquire the other; however,
 270 they cannot convert into one another. Understanding these

271 epistemological dimensions and their interplay provides
 272 organisations and teams with the ability to learn, innovate
 273 and develop competencies that can be used in future projects
 274 (Cook and Brown 1999). Additionally, the knowledge seeker
 275 must be careful of the subjective interpretation of success
 276 factors and avoid "superstitious learning" (Zollo and Winter
 277 2002). Preconceived notions can be easily generated, and
 278 projects often falter because the needs of the beneficiaries
 279 have not been fully contemplated.

280 Human-centred approaches such as design thinking are
 281 considered a viable solution to integrate multidisciplinary
 282 knowledge, consumer insights and recognise the infrastruc-
 283 ture needed to support the output provided. Design-thinking
 284 complements the learning process both through the collec-
 285 tion of knowledge and its application. Not only does it tap
 286 into capacities that conventional problem-solving practices
 287 overlook, but also it brings balance between the rational/
 288 analytical side of thinking and the emotional/intuitive coun-
 289 terpart (Brown and Winter 2010). This approach has contrib-
 290 uted significantly to ID project success (Chapley 2012) and
 291 has been adopted by UNICEF, The World Food Programme,
 292 and the International Rescue Committee. Additionally, com-
 293 panies such as Frog and IDEO continue collaborating with
 294 NGOs to integrate this approach in development projects and
 295 programmes (Cheney 2016).

296 Programme thinking can also be explored to drive pro-
 297 ject success, as a given programme may involve coordinat-
 298 ing multiple projects to achieve a specific outcome. In this
 299 sense, projects can focus specifically on their particular out-
 300 put whilst the programme can ensure that the outcome is
 301 delivered. In addition, projects can start and end under the
 302 programme umbrella. However, both approaches are comple-
 303 mentary, and not all projects are part of a programme
 304 (OGC 2007). Lastly, given that the distinction between HA
 305 and ODA is less straightforward in practice (Fink 2011),
 306 LRRD has been identified as a model that could bridge the
 307 grey zone between both sides of the international assistance
 308 spectrum (Kopinak 2013). Programmes, rather than singled
 309 out projects, can be used to provide a successful LRRD
 310 (Ramet 2012) as they can coordinate and oversee the imple-
 311 mentation of a set of related projects to deliver an outcome
 312 greater than the sum of its parts (OGC 2007).

313 The literature review suggests that Project Management
 314 is a relatively new discipline in the Third Sector. Its method-
 315 ologies have been progressively adopted and recognised as
 316 a possible remedy for poor ID performance (Bysouth 2017;
 317 Landoni and Corti 2011; Golini and Landoni 2014). Logi-
 318 cal Framework and Monitoring and Evaluation are widely
 319 adopted PM tools by NGOs (Golini et al. 2015; Steinfort and
 320 Walker 2011). Poor planning and coordination, inadequate
 321 beneficiary involvement and omission of LRRD have often
 322 provided unsustainable/unsuccessful outcomes. (Alexander
 323 2002; Kopinak 2013) Project management, thus, alone is

Table 2 Experts and Guidance;
Source: Authors

Domain	Expert
Project Management	Professor TB
Project Management in NGOs	AB (a high-ranking manager at a Third Sector Project Management Forum)
Humanitarian Assistance and Innovation	Professor HR
Design and Innovation	Doctor AG

not enough to deliver a successful outcome. Outputs need to be supported by hard and soft services, and beneficiaries must be considered in project design phases (Steinfort and Walker 2011; Alexander 2002; Kopinak 2013). Projects generate value and learning. The customer value generated from the project should be considered to determine project success (Rodrigues et al. 2014). Design thinking complements the learning process both through the collection of knowledge and its application. Human-centred approaches increase the possibility to create sustainable solutions and achieve success by incorporating interpersonal elements into the existing paradigm (Winter et al. 2006; Brown and Winter 2010). The distinction between HA and ODA is not always straightforward. LRRD, Design Thinking and programme implementation can help ID projects deliver successful and sustainable outcomes (Fink and Redaelli 2011; Chapley 2012; Cheney 2016). These arguments lead to the following proposition:

Project management can contribute to HA projects by providing better planning, coordination and knowledge generation. PM can improve the outcome of HA projects; however, it is not the only success factor. Infrastructure (hard and soft services) must be available to support the project outcome⁷, and most importantly, such outcome should align with the broader culture and needs of the beneficiaries. Design thinking offers PM ways of including the end-users, ensuring outcomes are fit for purpose and that customer value is generated.

3 Methodology

Primary and secondary data were used to explore the effects that implementation of Project Management tools and techniques could have on the success of humanitarian projects. First, secondary qualitative data was explored via a systematic literature review (Baroudi and Rapp 2011). The review

provided a synthesis of extant knowledge and helped create an expert database for conducting interviews as primary research (Roberts and Petticrew 2006; Hasson and Keeney 2011). Given the exploratory nature of this research, we interviewed a limited number of experts (mentioned in Table 2) in the fields of PM, ID and design thinking. Given that the purpose was to explore in-depth the expert's views on humanitarian aid and their particular field, discuss their findings, and find additional study paths (Saunders et al. 2009), the interviews were kept unstructured. Each interview lasted approximately 30 to 45 minutes.

Computer-Assisted Qualitative Data Analysis Software (CAQDAS) was used for the data analysis to aid continuity, transparency and methodological rigour. Via Nvivo, the literature was coded following a template analysis, which combines deductive and inductive approaches. This meant that the literature could be coded using predetermined information (like the challenges or success factors identified in the literature review) and at the same time amend or add codes as more data was collected and analysed. This approach permitted exploring key themes and identifying emerging issues (Saunders et al. 2009). Once all the codes were established, MS-Excel was used to measure the data from the 33 sources selected and display the data to facilitate comparisons through graphs. Ordinary scales from zero to five (from least relevant to most relevant) were used to rank-order the codes (variables) according to the importance that each author gave to each category (Sekaran and Bougie 2016).

Given that the authors did not focus solely on any of the variables, none of the categories ranked five, and most were rated two or three. Additionally, the graphs included the number of journals that mentioned the categories rated to give the audience a clearer view of each variable's "real" frequency. Finally, to prove reliability, the consistency of the rankings was confirmed by four volunteers unrelated to the study. These volunteers were given samples of 10 different journals. This exercise helped find and correct mistakes and strengthen validity. It also served as a point of discussion regarding the findings of this research.

There was not enough literature regarding project management in ID projects (Diallo and Thuillier 2005; Golini and Landoni 2014), including humanitarian projects (Briere et al. 2014; Baroudi and Rapp 2011). To overcome the

⁷ Rebuilding schools without making sure that children live in a safe home, or building a water centre that does not provide containers to easily carry clean water, are some examples of how absence of hard and soft services delay project outcome (Brown and Winter, 2010).

Table 3 ABS/AJG Journal 2021 Ratings

JOURNAL	RATING (out of 4)
Academy of Management Journal	4*
Organization Science	4*
European Journal of Operational Research	4
Public Administration Review	4*
Economics Letters	3
Omega: The International Journal of Management Science	3
Technological Forecasting and Social Change	3
World Development	3
International Journal of Project Management	2
Journal of International Development	2
International Journal of Managing Projects in Business	1
Project Management Journal	1

401 limitation of data scarcity, the findings on PM applica-
 402 tions in ODA projects were considered and later adapted
 403 to humanitarian projects. It was a straightforward process,
 404 given that the main difference between these types of assis-
 405 tance is the spontaneity of the event and the time horizon
 406 (Golini and Landoni 2014). Similarly, the overall theory on
 407 design and innovation was studied and further shaped into
 408 its use in the International Development field, focusing on
 409 humanitarian relief. The sources selected were published
 410 within the last ten years to gather the most recent informa-
 411 tion. This critical selection included the collection of aca-
 412 demic and scientific journals published under the Associa-
 413 tion of Business School (ABS/AJG) rankings (Table 3). In
 414 addition, other research databases, like Scopus and Web of
 415 Science were also considered, non-ABS/AJG listed journal
 416 listed in these databases like The Journal of Humanitarian
 417 Assistance, Design Issues Journal, Standford Social Innova-
 418 tion, Centre for Research on Epidemiology of Disasters, UK
 419 Department for International Development, Evaluation and
 420 Program Planning Journal, International Federation of Red
 421 Cross and Red Crescent Societies, and International Journal
 422 of Advanced Intelligence Paradigms were also included, as
 423 they provided relevant information and helped overcome
 424 the obstacle of the limited available literature. Additional
 425 sources include books, conference reports and other official
 426 publications that focused on the chosen area.

427 4 Data analysis and discussion

428 This section presents the results obtained from the analy-
 429 sis of data described in part three. In line with the initial
 430 objectives, Sect. 1 highlights the challenges encountered in
 431 HA projects and factors contributing to HA project failure

and success. Section 2 reports the benefits that PM brings
 into this field and the importance of the cognitive process in
 exploratory projects of this nature. Lastly, Sect. 3 revisits the
 link between PM and design theory and how human-centred
 approaches can contribute to sustainable projects.

4.1 Challenges, failure, and success

Challenges Figure one illustrates the main challenges
 in Humanitarian Aid projects. The graph further divides
 obstacles into four subcategories representing: A) the char-
 acteristics of the external environment and uncontrollable
 factors, B) general management and the "iron" triangle of
 Time, Cost, and Quality (TCQ), C) human-based manage-
 ment and challenges, and D) others. This categorisation⁸
 was derived as a common theme throughout the findings. It
 continues throughout the graphs of this section to link the
 commonalities between them and show the importance of
 PM in each of these levels.

HA challenges are broad[1, A1]⁹, and they are growing in
 scale, scope and complexity. All of these challenges are
 interlinked and often dependent on one another. Complex-
 ity[1, A2], for example, encompasses the diversity of time
 lines[1, B2] roles and stakeholders[1, C2] that must be
 coordinated in HA projects, adding a layer of difficulty as
 some of these are not clearly defined. Limited resources[1,
 A6], including lack of human skills, were the second big-
 gest challenge. They are followed by the complications of
 assessing impact/quality[B4] given the poor feedback and
 control mechanisms recognised in this sector. Furthermore,
 the high number of stakeholders[1, C2] was considered
 more critical than the unique and unpredictable context in
 emergency settings[1, A2, A3]. The greater the stakeholder
 spectrum, the more coordination, communication, needs and
 requirements[1, C1] to be met; it also increases the opacity
 of authority lines and responsibilities[1, A2]. It was also
 discovered that the greater the power distance is between
 donors and recipients, the harder it is to meet donor require-
 ments[1, C1]. Additionally, high levels of bureaucracy[1,
 A4] contribute to delays[1, B2], and personal agendas[1,
 A5] might interfere with project outcomes if, for example,
 managers were more concerned about their relationship with
 particular politicians or status in the public/private sector,
 rather than on the community burden (Diallo and Thuillier
 2004). Together with the absence of PM methodologies,

⁸ This categorisation was organised in a way that it separated exter-
 nal/less controllable factors (A), from variables that can relate
 directly to PM knowledge areas (B&C). Further separating integra-
 tion, scope, TCQ, risk management, procurement and justification
 (B), from more human based related variables: HR, stakeholder and
 communication.

⁹ Please read [1, A1] as figure 1, bar-chart A1.

475 these challenges usually result in poor project planning,
476 superficial risk management strategies, paucity of account-
477 ability and stakeholder involvement, unmotivated project
478 teams, and eventually costing project success (Kelecklaite
479 2015).

480 **Failure factors** Figure two presents additional omissions that
481 not only hinder success but can also lead to project failure.
482 Insufficient culture consideration[2, AC] was regarded as the
483 most relevant contributor to failure. Lack of shared percep-
484 tion between donors, project managers, and end-users can
485 result in poor beneficiary inclusion and omission of com-
486 munity needs during planning and delivery stages. Exclu-
487 sion of factual information, dishonesty, and lack of trans-
488 parency[2, A2] came second; these include corruption and
489 political manipulation, shaky government policies and lack
490 of transparency derived from the difficulty of breaking down
491 costs incurred in HA (Kopinak, 2013). Finally, lack of or
492 poor PM[2, B1] was one of the most critical factors, mainly
493 as factors mentioned in sections B and C can be managed
494 through this discipline.

495 Furthermore, resource allocation[2, B2] amongst relief
496 projects has been denounced disproportionately not only
497 in terms of goods and skills but financially; some opera-
498 tions have been "forgotten" as they receive little or no help
499 from donors, while others receive more than is necessary.
500 Next came inappropriate recruitment[2, B3] and flawed
501 risk analysis[2, B4]. Inappropriate recruitment disrupts
502 team functions and service delivery, reflecting negatively
503 on the donor and hindering project management and future
504 finance. Lack of experience also reflects poor cultural per-
505 ceptions[2, AC], including difficulty adapting to the envi-
506 ronment and having an unbalanced view of local values,
507 beliefs, and infrastructure. Finally, inexperience often
508 results in workplace stress, frustration, anger and lack of
509 empathy to the host country.

510 **Success Factors** Figure three identifies that PM[3, B1], les-
511 sons captured[3, C5], resource allocation[3, B3], stakeholder
512 management[3, C3], and communication[3, C2] are the key
513 factors to consider to achieve success in HA projects. As
514 the literature review suggested, capturing lessons is criti-
515 cal for success, helping to achieve continuous improvement.
516 Knowledge creation and capture[3, C5] can happen at all
517 stages and levels of the project life cycle. Lessons gained
518 should be transmitted to subsequent projects to prevent the
519 repetition of mistakes (Golini et al. 2015). Additionally,
520 managers must know that learning opportunities are missed
521 when managers are reluctant to admit mistakes, leading to
522 losing some donor funding (Marlow 2016). Furthermore,
523 PM[3, B1] was equally relevant and given that the PLC
524 is included under this category, it can be inferred that the
525 importance of planning has also been considered. Although

communication[3, C2] was not as frequently mentioned, it
is a critical success factor as it relates to other categories
such as team management, motivation and leadership[3,
C1], conflict resolution[3, C4], cultural sensitivity[3, AC1]
and in choosing a particular language to refer to the end
users[3, AC2]. Lastly, standardisation[3, D] was suggested
to improve the application of PM methodologies and obtain
more objective results from evaluation and feedback mech-
anisms. It was also significant to better understand suc-
cess and failure contributing factors[2, B5], as well as to
improve finance and resource allocation[2, B2], prioritisa-
tion of stakeholder needs[2, AC], ethical practices[3, A2],
and reduction of coordination problems[7, B1, C1] and time
frames.

4.2 Benefits of project management in humanitarian assistance

The general belief that enthusiasm and empathy are the
essential skills of aid workers leads to staff that have unsuit-
able skills and experience (Kopinak 2013). As both literature
and findings suggest, HA project managers deal with A)
a broad range of challenges outside their control, B) hard
services to deliver, and C) human management at all lev-
els. Fortunately, PM can add value, improve performance
through each of 'its knowledge areas*', and facilitate Project
Capability Building (PCB). Figure four highlights commu-
nication[4, C1] as one of the most beneficial tools, followed
by time coordination[4, B3] and general organisation[4, B1],
monitoring and appraisal[4, B9], and stakeholder manage-
ment[4, C2].

Communication[4, C1] represents the single most crucial
task faced. However, it is also considered highly difficult
in the HA context. The quality of information exchanged
depends highly on trust, respect and values, and verbal and
behavioural delivery and decoding. Furthermore, PM ben-
efits projects by providing more realistic time frames[4, B3]
and technical abilities to meet them[4, AB2]. This is particu-
larly helpful in the case of exploratory projects as a means to
identify cycles[4, AB1] such as the disaster areas: readiness,
relief and recovery (Boroundi and Rapp 2011).

Time coordination[4, B3], allocation of resources[4, B7]
and general organisation[B1] can be better achieved through
the use of readiness stage, where possible scenarios[A1],
governance indicators[4, A1] and preliminary planning
can be applied to ensure quick and efficient crisis response
as well as cost reduction[4, B4]. Additionally, the disaster
relief stage supports logistics and procurement[4, B6] of
both human and "basic" survival resources¹⁰, and disaster
recovery serves as the transition to LRRD[4, B2]. Moreover,

¹⁰ Mainly food, shelter and medicine.

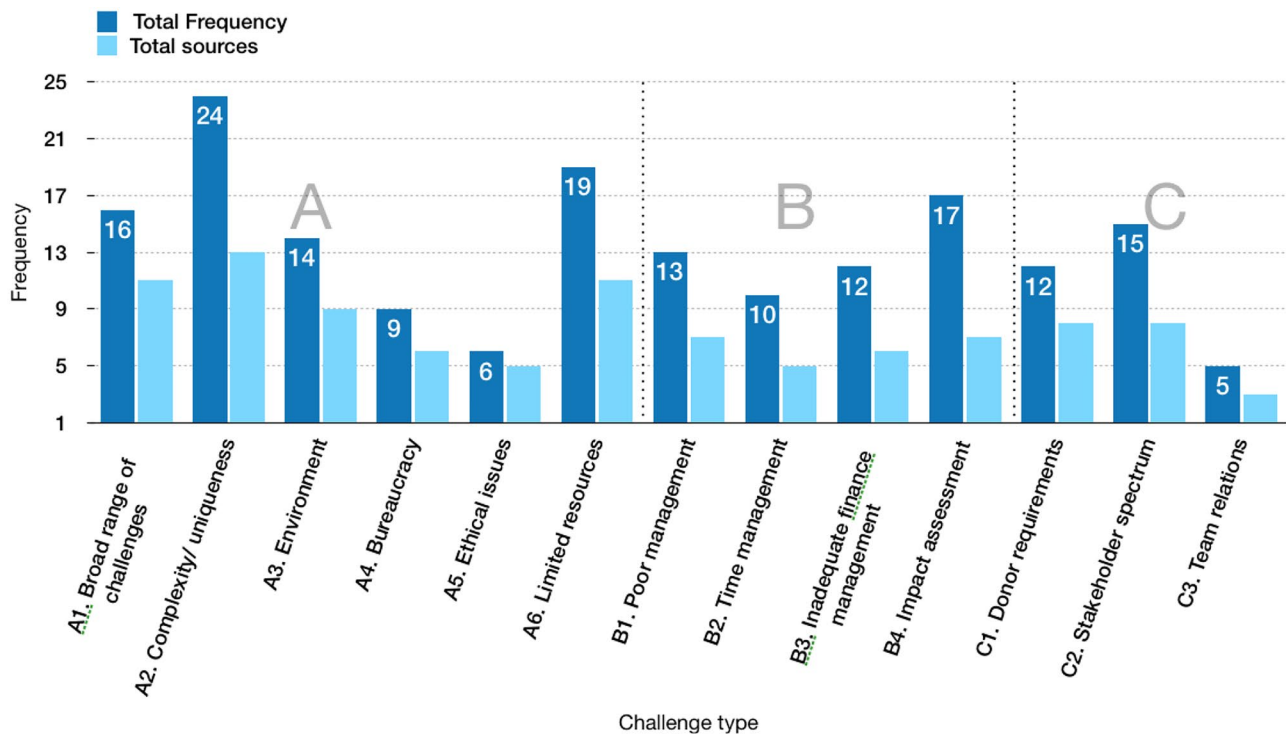


Fig. 1 Main Challenges in Humanitarian Aid Projects; Source: Authors

574 methodologies like stakeholder matrix and organised break-
 575 down structure, as well as knowledge areas like Human
 576 Resources (HR)[4, BC] and communication[4, C1], help
 577 address the challenge of complex stakeholder manage-
 578 ment[4, C2]. Tools like " project monitoring and evaluation
 579 matrix" are relevant to assess project impact and serve as
 580 feedback mechanisms to capture lessons[4, C3].

581 4.3 Cognitive process in exploratory projects

582 PM offers the opportunity to learn from projects, which is
 583 progressively essential to project success (Fig.8). While
 584 Sect. 1 identified the uniqueness and complexity of HA
 585 projects as a challenge, both exploratory¹¹ and exploita-
 586 tive¹² learning are closely linked to the degree of change in
 587 the environment (Brady and Davies 2004). Learning from
 588 exploratory projects is the process of discovering practical
 589 lessons from experiences that could not have been foreseen
 590 (Lampel et al. 2009). HA projects provide higher learning
 591 opportunity as patterns and behaviours can quickly become
 592 obsolete. Consequently, constant revision of organisational

593 process permits focus and transforms ambiguous informa-
 594 tion into knowledge, hence the relevance of identifying
 595 cycles and applying monitoring and evaluation in all stages.

596 Similarly, the process of learning involves making sense
 597 of the culture, leadership and capabilities of the current
 598 context; it requires a level of receptivity and observation.
 599 These lessons can manifest as the creation of new solutions
 600 or as innovative processes. The latter is ontological to the
 601 cognitive process of exploratory projects, as innovation pro-
 602 cesses are driven mainly by experimentation. Exploratory
 603 projects bring higher opportunities for learning as they do
 604 not have definite specifications; their " openness" provides
 605 a baseline for the generation of new ideas (Lenfle 2014).
 606 In like manner, new management methods are encouraged
 607 given the levels of " unforeseeable uncertainties"; therefore,
 608 the process of learning through exploratory projects can be
 609 understood as a loop of selection and testing, an inductive
 610 process. However, learning must be captured either through
 611 a communication or through embedding the new knowledge
 612 into processes and combinations.

613 4.4 Discussion

614 It was expected that each of the categories (A, B and C)
 615 within the graphs would relate to one another across the
 616 different divisions: main challenges, factors of success, con-
 617 tributors to failure and PM contribution. Even though all of

¹¹ Knowledge acquired in exploratory projects (Brady and Davies 2004)

¹² What results of exploratory learning as it develops into new capa-
 12FL01 bilities (Brady and Davies 2004)
 12FL02

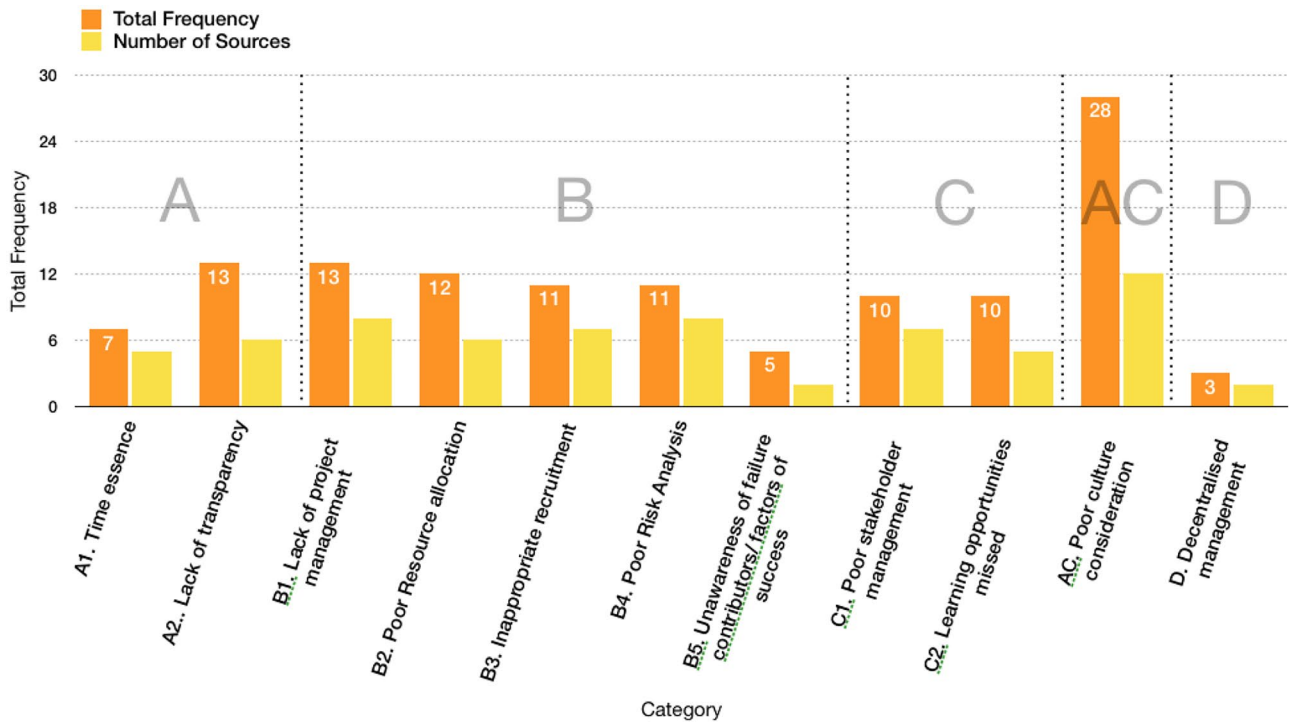


Fig. 2 Contributors to HA Project Failure; Source: Authors

618 these categories are interrelated, the results differ from one
 619 division to another. Within *challenges* (Fig 1), the category
 620 that was considered the most relevant was the one relating to
 621 the external factors (A). In this sense, the results agree with
 622 the literature review, which suggests that the environment of

HA projects is hostile and uncertain and that its complexity
 is the main hindrance to success. Moreover, within *success*
 factors (Fig 2), category C, relating to human-based man-
 agement and challenges, was considered vital. This category
 made a high emphasis on communication and interpersonal

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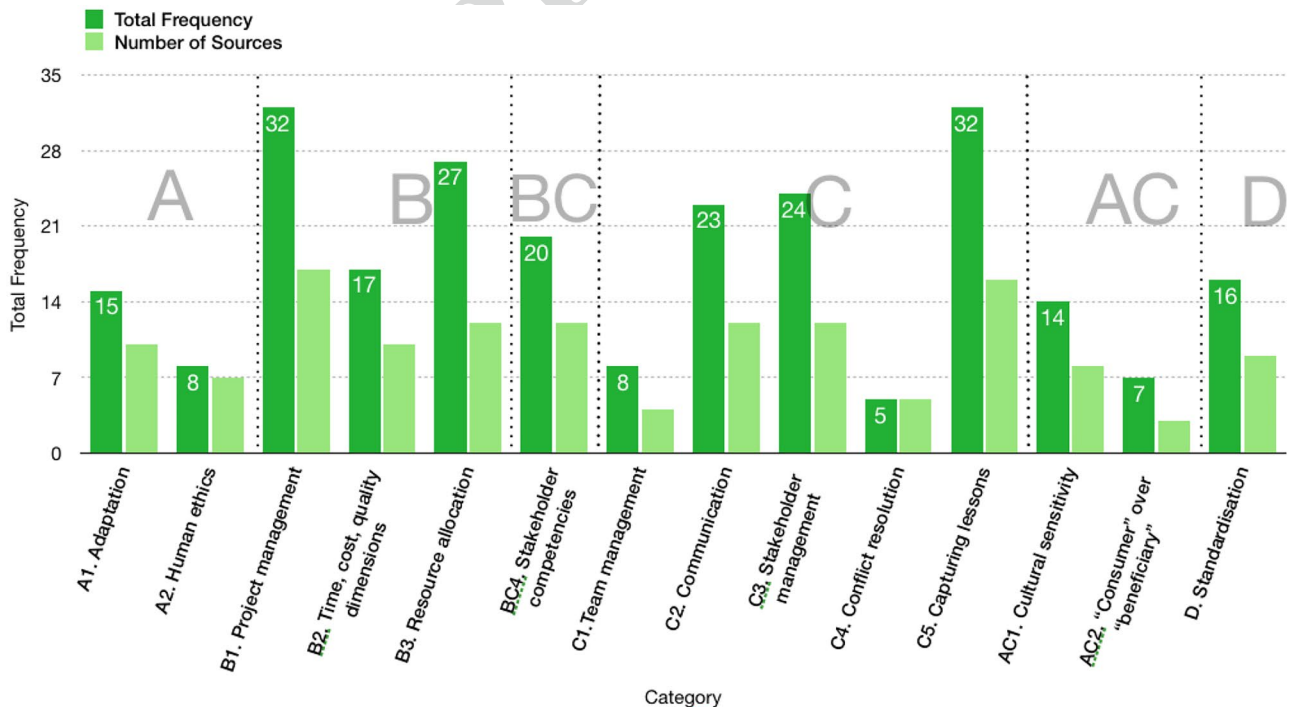


Fig. 3 Success Factors in HA projects; Source: Authors

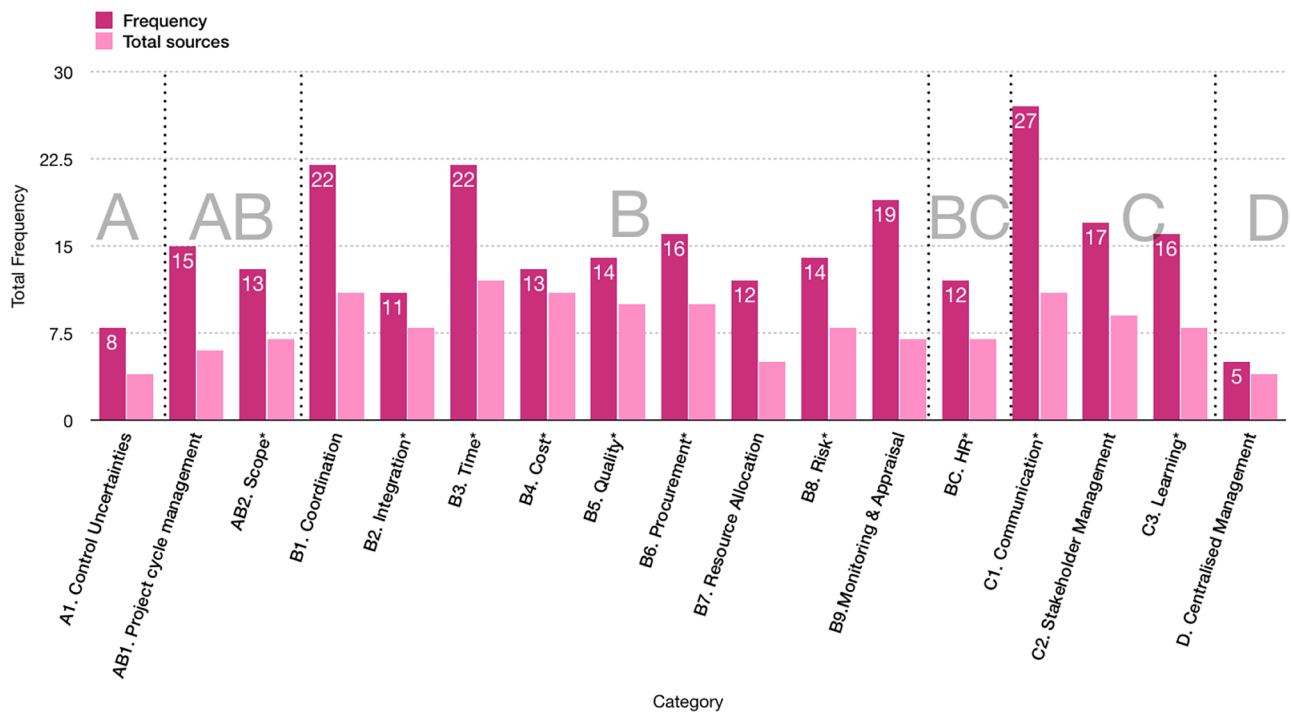


Fig. 4 Contribution/knowledge areas of Project Management; Source: Authors

628 skills. However, in contrast with what was expected from
 629 the literature, communication was not as frequently men-
 630 tioned as other factors like the relevance of PM or lessons
 631 captured. Stakeholder management was also mentioned in
 632 both *success factors* (Fig. 2) and *PM contributions* (Fig. 4).
 633 However, contrary to what was expected from the literature,
 634 the consideration of the recipients and their inclusion in the
 635 project was not mentioned as such. It could be inferred that
 636 it is part of stakeholder management and that the lack of
 637 culture consideration was regarded as highly relevant within
 638 contributors to failure (Fig 3).

639 Nevertheless, including the beneficiaries in project design
 640 phases was expected to be the primary approach to planning
 641 and implementing HA projects. Additionally, the most rel-
 642 evant category in both *failure factors* (Fig 3) and *PM con-*
 643 *tributions* (Fig. 4) was in relation to the more technical and
 644 general management (B).

645 Furthermore, project leaders should harness the pas-
 646 sion for positive social impact with careful and intentional
 647 planning. This confirms the suggestion from the literature
 648 review regarding the possibility of PM being a remedy for
 649 poor project performance. Furthermore, it indicates that
 650 PM management is critical to achieving successful coordi-
 651 nation, time management and resource allocation, all of
 652 which were also suggested in the literature review. Despite
 653 being a critical factor in the literature review, it was sur-
 654 prising that programme end-users were shown to receive
 655 meagre attention and have not been considered necessary,

mainly because beneficiaries are at the centre of creating a
 sustainable project.

For this precise reason, the literature suggested incor-
 porating human-centred design in the planning and imple-
 mentation and evaluation of HA projects and the benefits
 of treating the recipients as consumers. However, it seems
 like there is still a gap in both the literature and the practice
 between these fields.

5 Conclusion

Natural disasters' frequency and destructive capacity are on the
 rise, and a high number of international assistance projects are
 reported to have high failure rates and unsatisfactory perfor-
 mance. Moreover, the livelihood and survival of people in the
 affected communities are highly dependent on disaster relief
 projects. Therefore, third sector organisations must find ways
 to manage humanitarian aid effectively. The professionalisa-
 tion of humanitarian response has contributed to the adop-
 tion of PM tools, and the development of NGO focused PM
 frameworks. However, there is still a gap concerning meeting
 the end users' needs and considering them in all parts of the
 project/disaster life cycle. As the literature identified, the lat-
 ter is one of the factors of project success because it is linked
 with the degree of customer value and because including the
 beneficiaries can result in sustainable outcomes that manage
 to bridge relief, rehabilitation, and development.

681 The categorisation of the variables into HA environment
 682 and PM knowledge areas suggested that PM can contribute
 683 to humanitarian project success and that project manager
 684 can and should learn from exploratory projects. The scope
 685 of the challenges discovered was as complex as the litera-
 686 ture suggested; the main challenges in achieving favourable
 687 HA project outcomes included limited resources, difficulty
 688 assessing the project's impact, and the broad stakeholder
 689 spectrum. Although it was initially assumed that the emer-
 690 gent nature of the exploratory projects hinders outcomes, it
 691 was discovered that the highly complex- uncertain, unstable,
 692 culturally diverse, and multiple stakeholders- environment
 693 could provide a fertile ground to activate the learning pro-
 694 cess and generate explicit and tacit knowledge. In this sense,
 695 it is only logical that capturing lessons and PM application is
 696 rated as the most critical factors to achieve project success.
 697 However, project managers must consider that patterns and
 698 behaviours in HA projects can quickly become obsolete and
 699 that constant revision of organisational process and commu-
 700 nication allows the transformation of ambiguous information
 701 into knowledge.

702 In the same way, communication was one of the most
 703 relevant success factors, and the PM contribution was con-
 704 sidered the most important. Findings suggested that com-
 705 munication is at the core of success because it is part of
 706 every process, from HR to coordinating with a diverse ros-
 707 ter of stakeholders to permit the correct allocation of time,
 708 resources, procurement, etc. Communication is also vital to
 709 design thinking. It allows project managers to adapt to the
 710 environment and understand the needs of the end-users and
 711 engage with them to create solutions that are suitable for the
 712 communities affected. People must be placed at the centre
 713 of the project life cycle, and beneficiaries must be included
 714 in all project design phases. Further research into both the
 715 practical use and perceived benefits of human-centred design
 716 needs to be undertaken and the results contrasted with those
 717 of current standard practices. This would enable a fuller
 718 understanding of how these practices help and hinder the
 719 development of better outcomes for beneficiaries, leading
 720 to more synthesis between traditional and innovative project
 721 management approaches in the third sector.

722 In conclusion, project management, particularly in HA,
 723 goes beyond tools and methodologies. Managers must also
 724 possess high human skills to adapt to demanding environ-
 725 ments, communicate appropriately, and engage with multiple
 726 stakeholders to achieve a successful project outcome. People
 727 are the common denominator throughout this study. Lack
 728 of stakeholder consideration and working from the precon-
 729 ceived notions of what needs, and solutions are detrimental
 730 to project success. Both donors and recipients matter, and
 731 project managers should prioritise accordingly and bridge
 732 the gap between donor-recipient relations to find innovative
 733 ways of meeting their requirements. In this sense, adopting

design thinking can lead to more sustainable solutions and
 project success. Lastly, this report identified a gap in the
 literature relating to the promotion and efficacy of design
 thinking when implementing PM. Further research into both
 the practical use and perceived benefits of human-centred
 design needs to be undertaken and the results contrasted
 with those of current standard practices. This would enable
 a fuller understanding of how these practices help and hin-
 der the development of better outcomes for beneficiaries,
 leading to more synthesis between traditional and innovative
 project management approaches in the third sector. **AQ4** 4

Declarations

The authors have no relevant financial or non-financial interests to
 disclose. 746 747 748

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