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WORKING PATTERNS OF TRANSFORMED NONPROFIT ORGANISATIONS DURING THE PANDEMIC. THE ITALIAN CASE

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Abstract. This study examines the digital transformation processes and challenges faced by nonprofit organisations (NPOs) in the Lombardy region of Italy during the COVID-19 pandemic. While nonprofits encountered multiple challenges, the pandemic also highlighted the importance of digitalisation by prompting organisations to reassess their technological capabilities, internal processes, and stakeholder engagement practices. The purpose of the study is to analyse how non-profits in Lombardy navigated the shift toward digital tools, identify key barriers to digital transformation, and evaluate the perceived impact of digitalisation on organisational functioning. This study employs the Technology Acceptance Model (TAM) to explore the factors influencing technology acceptance and the integration of digital tools within the nonprofit sector. The research uses a survey-based methodology, gathering 118 responses from nonprofit personnel across diverse organisations in the Lombardy region, Italy. The questionnaire captured respondents' rankings of digitalisation challenges, the impact of digital tools on fundraising, communication, and internal processes, as well as the areas where digital transformation remains incomplete. In addition, the survey assessed participants' expectations regarding the future role of digital technologies in NPO operations. Initially, the questionnaire was prepared in English, translated into Italian, piloted for reliability and then distributed online. The findings reveal that participating NPOs believe limited financial resources, gaps in digital skills, and the absence of clear digital strategies to be the most substantial obstacles in their digital transformation journey. Despite these barriers, most respondents reported positive organisational outcomes, including improved communication, enhanced outreach, increased recruitment capacity, and more effective fundraising processes. The results indicate that digital tools supported organisational resilience during crises such as a pandemic and are widely expected to remain integral to nonprofit operations in the post-crisis environment. The study further highlights the importance of accelerating digital capabilities to ensure successful adaptation and also for nonprofit organisations to remain competitive in the future. The conclusion emphasises that although digitalisation has already brought clear benefits for nonprofit organisations, longterm success requires continued investment in digital skills, strategic planning, cybersecurity, and infrastructure. These insights contribute to a broader understanding of nonprofit digital readiness and underscore the need to support organisations in the ongoing digital transformation process.

Keywords: nonprofit organisations, nongovernmental organisations, digitalisation, digital transformation, pandemic, challenges, crisis management.

JEL Classification: L31, O33, M15

1. Introduction

Digital transformation creates various opportunities and challenges for nonprofit organisations. Digital transformation should be understood as an organisational and cultural process that reshapes strategies, communication mechanisms, and stakeholder engagement patterns, rather than just an introduction of digital tools (Radu et al., 2024). Social media platforms, for instance, play a pivotal role in enhancing public participation, enabling

more direct interaction between organisations and their communities. These tools set new expectations for transparency, responsiveness, and efficiency. The adoption of digital technologies brought notable changes to how nonprofit organisations operate, particularly in areas such as accountability, governance, and performance measurement. Emerging tools, such as data analytics platforms, blockchain technologies, artificial intelligence (AI), enterprise resource planning (ERP) systems, and cloud-based reporting solutions,



introduced new possibilities for improving service delivery and internal management structures (Bracci, 2023; Moll & Yigitbasioglu, 2019). Even before the COVID-19 crisis, many nonprofits recognised the strategic importance of digitalisation in advancing their humanitarian and developmental goals. Investments in technology were already on the rise, reflecting a growing awareness that digital tools could reshape organisational relationships, redistribute power within institutional structures, and influence interactions with stakeholders (Beyes et al., 2022; Madianou et al., 2016).

European NPOs have experienced significant damage across the field as the COVID-19 pandemic has spread across the continent, causing challenges in both work continuity and social and financial issues. The sudden shift to remote operations required nonprofits to adopt digital fundraising tools and online marketing strategies. Service provision models transitioned rapidly from face-to-face support to virtual or distance-based formats, making digital transformation essential for nonprofits to survive (Nonprofit Philanthropy Social Good Covid-19 Report, 2020).

This study aims to provide targeted insights into the challenges and advancements experienced by Italian NPOs in Lombardy. By examining these organisations' digitalisation processes during the COVID-19 pandemic, we contribute to the existing body of knowledge on nonprofit digital readiness and resource needs. This study's results showed that digitalisation offers nonprofits critical tools for long-term resilience, particularly in managing remote work, data, and communications during crises. Stressing these long-term benefits would underscore the strategic value of digital transformation beyond the pandemic context

This article continues as follows. First, key aspects of digital transformation are defined in the context of nonprofit organisations, as well as their advantages and challenges. Second, presentation of what is currently known about Italian NPOs' digital transformation and how the third sector reacted and functioned during the pandemic. Third, the introduction of this study's methodology, research scope, questionnaire development and data collection. Lastly, the study's results discussion is followed by implications, limitations, and recommendations for future studies.

2. Literature Review

Digital transformation involves implementing digital tools and technologies within an organisation, reshaping its operations, value delivery mechanisms, and ability to create social or economic impact (Westerman et al., 2014). This process not only optimises existing functions but also allows for the emergence of innovative models for management and

service delivery (O'Grady & Roberts, 2019; Radu et al., 2024). Over the years, advocates for digital transformations in nonprofits have been looking into what technology has brought about within industries, governments, economies and societies (Deloitte, 2023; Vogelsang et al., 2021).

Digitisation facilitates greater efficiency within organisations by streamlining communication, enhancing collaboration, and simplifying work processes. As Kaplan and Haenlein (2019) noted, digital transformation involves the integration of technology into all areas of organisational life, producing new ways of solving traditional operational challenges. Digital platforms allow nonprofits to personalise their donor engagement strategies and automate time-intensive administrative functions such as financial reporting. This, in turn, can strengthen trust and improve the transparency of their activities. Prior research has directly linked IT investments with the greater effectiveness of NPOs (Godefroid et al., 2024). NPOs can opt for labour cost reductions by decentralising their services, while a company's labour costs can be reduced through decentralisation. Some scholars believe that organisational structure culture needs reinvention to maximise technological advancements since the digitalisation of NPOs is considered strategic for the full maximisation of technological advancements (Nahrkhalaji et al., 2018).

Maintaining a visible and interactive online presence became essential for nonprofits to remain competitive. This includes developing accessible websites, engaging strategically on social media platforms, and integrating clear digital communication strategies (KPMG, 2018). Digitalisation for nonprofits is an ongoing process involving adaptation to emerging technologies and responsiveness to evolving organisational and beneficiary needs, ultimately maximising the impact of the nonprofit mission (Brink et al., 2020). As a result, one of the many challenges that nonprofits face that might substantially impede the digitalisation process is as follows:

Limited financial capacity is among the most significant, as many organisations struggle to allocate resources to technological innovation (O'Grady & Roberts, 2019). In addition, a lack of management support often slows the pace of digital adoption (Brink et al., 2020; Ergado et al., 2021). Another common challenge is personnel resistance to change, which can stem from inadequate digital skills, fear of job displacement, or uncertainty about the digitalisation's effect on their organisation (Cavicchi & Vagnoni, 2023; Chui & Chan, 2019). Another study also revealed that NPOs encounter major problems in terms of the acceptance of digitalisation (Brink et al., 2020; Vogelsang et al., 2021). Moreover, many nonprofits lack the necessary technical infrastructure to incorporate modern systems such as customer relationship management (CRM), as do experienced IT professionals (O'Grady & Roberts, 2019).

According to the Charity Digital Skills Report (Amar et al. 2020), nonprofits struggle most with digital fundraising. With the pandemic shifting the focus toward online channels, organisations lacking in this area might face more difficulties. As a result, many nonprofits adjusted their operations in response to COVID-19. When asked how they have adapted, almost 40% shared that they have found new or creative ways to provide services. A quarter said that they had discovered new methods to engage with their supporters, mainly through online platforms. Nonetheless, Amar et al. (2020) noted that more charities believe that they treat those who are less fortunate fairly regarding providing digital services. Nonprofits must plan and invest in their digital growth to become more resilient. The government needs to support nonprofits in their endeavours to become more digitalised.

3. Digital Transformation of Italian Nonprofits due to COVID-19

Globally, the COVID-19 pandemic prompted nonprofits to rapidly adapt to remote work and digital service delivery to continue their missions. In this section, we draw on these global adaptations to provide a comparative view of digital transformation in Lombardy, Italy, where nonprofits faced similar yet region-specific challenges.

When the first COVID-19 outbreak started, many Italian NPOs stepped up to help, particularly in Lombardy, the most impacted region (Corvo et al., 2022; Italian Coalition for Civil Liberties and Rights, 2020; Oleandri, 2020). Despite financial problems and personnel shortages, Italian nonprofits quickly offered emergency help to those in need. For example, Banco Alimentare della Lombardia distributed around 18,000 tons of food and prepared over 36 million meals for more than 230,000 people in need (Barclays, 2021). Moreover, many Italian NPOs had to adapt their services, reassess financial expenses, and start practising new digital methods. Non-Profit Philanthropy Social Good Covid-19 Report (2020) revealed that during the initial lockdown, approximately 78% of Lombardy-based NPOs had to either pause their activities or significantly reduce their operations. With in-person engagement restricted and offices closed, even field workers shifted to working from home. Nearly half of these organisations turned to digital communication methods such as video conferencing, while 17% adopted new digital tools. Furthermore, 11% developed online fundraising approaches, and only 5% engaged in digital marketing to reach wider audiences (Non Profit Philanthropy Social Good Covid-19 Report 2020). Hence, Italian

NPOs were forced to adapt to new realities by using fundraising platforms and digital payment methods to connect with donors. This shift gave NPOs an opportunity to strategically incorporate digital tools to increase their effectiveness and remain competitive in a rapidly changing setting.

Like other NPOs, Italian NPOs faced various challenges during the digital transformation process. Some of these challenges include limited financial resources and technical expertise, making it difficult for them to invest in technology and train their personnel adequately (Cavicchi & Vagnoni, 2023; Nahrkhalaji et al., 2018). Additionally, resistance to change is another obstacle, as team members are accustomed to methods and may be hesitant to embrace new technologies (Chui & Chan, 2019; Radu et al., 2024). For nonprofits, digital transformation requires their personnel to learn new skills, such as data analysis, digital marketing, and new database management. Regardless of size and age, most organisations see a need for further training, above all in the knowledge of digital solutions for NPOs and when dealing with data (Dufft et al., 2018).

In some cases, nonprofits may lack the necessary IT infrastructure to support robust digital operations, for instance, outdated hardware, weak internet connections, or insufficient server capacity (O'Grady & Roberts, 2019). Moreover, nonprofits often use a variety of software applications for different purposes, such as fundraising, donor management, and programme evaluation (Brink et al., 2020). Moreover, handling donor information while ensuring data privacy in compliance with regulations such as the GDPR presents another set of challenges that require investment in cybersecurity measures and data protection protocols (GDPR Advisor, 2023). Italy, like many other countries, faces a digital divide, with disparities in technology access varying significantly by region, age group, and socioeconomic status (Vivaldi & Addis, 2021). This limited certain groups from benefiting fully from nonprofit online services. Nonprofits should also pay attention to adjusting their websites, applications, and other digital platforms to be accessible and userfriendly for users with disabilities.

Despite these challenges, digital transformation presents significant opportunities for Italian nonprofits to increase their efficiency, expand their reach, and better fulfil their missions. To sustain their organisations and continue to deliver on their missions, nonprofits should accelerate their digital capabilities to meet the needs of key stakeholders. For example, Cavicchi and Vagnoni (2023) demonstrated that in the context of Italian NPOs, the implementation of digital tools enhances accountability pathways.

To the best of the author's knowledge, no study has analysed the digitalisation process of Lombardy region nonprofits during the COVID-19 pandemic. Therefore, to fill this gap, this study aims to investigate

the digitalisation challenges Lombardy NPOs faced during the pandemic. Moreover, to shed light on which particular areas digital tools were implemented in and which are still undergoing the process.

4. Theoretical Framework and Methodology

This study employs the Technology Acceptance Model (TAM) to analyse how nonprofit organisations in Lombardy adopted digital tools during the COVID-19 pandemic. Originally introduced by Davis, TAM provides a conceptual structure for understanding how users come to accept and use technology. The model highlights two primary variables: perceived usefulness and perceived ease of use, which together influence the intention to adopt new technologies (Davis, 1989). TAM is particularly relevant in the nonprofit context, where technological integration often faces resistance due to limited resources, lack of digital expertise, and competing priorities. In the case of Lombardy NPOs, the model helps explain how personnel assess the practicality and simplicity of digital tools amid an evolving work environment. Moreover, TAM's flexibility allows it to be applied across various organisational and cultural contexts, making it suitable for examining how external pressures, such as donor expectations and regulatory requirements, affect digital transformation in Italy's nonprofit sector.

To frame this research, a comprehensive literature review was conducted. The first step was to evaluate existing research on the digital transformation of NPOs, followed by a search for studies concerning the digitalisation of Italian NPOs and, finally, the impact of the COVID-19 crisis on Italian NPOs. To achieve this goal, I started by looking for studies overlapping the research interest in the top-ranked nonprofit studies journals, such as Nonprofit Management and Leadership (NML), Nonprofit and Voluntary Sector Quarterly (NVSQ), and Voluntas. Relevant literature was identified using the following keyword combinations:

["NPO" OR "nonprofit" OR "non-governmental" OR "non-profit"] AND ["digitalisation" OR "digitalization" OR "digital transformation"] in abstract, keywords, and subject terms.

Then, searched for studies concerning Italian NPOs: ["Italian NPO" OR "Italian nonprofit" OR "Italian nongovernmental" OR "Italia non-profit"] AND ["digitalisation during COVID-19" OR "digitalization during COVID-19" OR "digital transformation during COVID-19"] in abstract, keywords, and subject terms.

These searches helped identify key gaps in the literature, particularly around how regional nonprofits adapted to pandemic-related disruptions. The review informed the development of this study's survey instrument and research design. A survey approach

to evaluate digital transformation readiness and the impact of digital tools on organisational efficiency in Lombardy's NPOs. Key metrics were adapted to measure areas such as internal communication, online project management, and digital fundraising.

5. Data Collection

To collect relevant data, a structured online questionnaire was developed and administered to nonprofit personnel operating in Lombardy. Since the primary survey was initially designed in English, it was professionally translated into Italian, with two bilingual experts reviewing the translation to ensure clarity and linguistic consistency.

The target population consisted of adult respondents (aged 18–65) who self-identified as either personnel members or volunteers within NPOs. A purposive sampling strategy was used to recruit participants. The selection process was inclusive of individuals from diverse nonprofit organisations, regardless of their mission focus, size, or demographic composition. Before participation, each NPO received a formal email invitation outlining the study's objectives, data handling procedures, and assurance of participant anonymity.

The questionnaire was hosted on Google Forms and consisted of two sections. The first section focused on identifying key organisational barriers to digital transformation. Participants were asked to rank the following seven challenges in order of importance:

- 1. Lack of perceived need for change.
- 2. Insufficient support from board members or trustees.
 - 3. Low employee engagement.
 - 4. Limited financial resources.
 - 5. Gaps in digital skills and capabilities.
 - 6. Absence of a clear digital strategy.
 - 7. Inflexible leadership or management styles.

The second section assessed the impact of digital tools on organisational performance. Respondents indicated which areas had most benefited from digitalisation during the pandemic (e.g., donor outreach, recruitment, partnerships), as well as those where digital transformation efforts remained ongoing. These areas included:

- Online project management software.
- Encrypted communication and data protection tools
- Online donation and fundraising platforms.
- Internal communication and coordination systems.

The last questions concerned participants' anticipation of their organisations' functioning in a post-pandemic world. Did they believe that the use of digital tools would become part of the day-to-day reality for the vast majority of NPOs?

A pilot study involving 10 participants was conducted to test the clarity, length, and reliability of the survey instrument. Feedback from this group was used to refine wording and structure before full deployment. The final questionnaire was then distributed via email to 100 NPOs in the Lombardy region, resulting in 118 completed responses. This sample size is considered sufficient for studies of this nature, as it allows for meaningful analysis and interpretation of data while providing a representative snapshot of the target population (Hertzog, 2008; Johanson & Brooks, 2009).

6. Results and Discussion

The purpose of this study was to evaluate the state of digitalisation among NPOs in Lombardy, with a particular focus on the challenges faced during the COVID-19 outbreak. To achieve this goal, this study aimed to identify and analyse the specific barriers that hindered the digital transformation process during this critical period. The respondents were asked to rank a set of challenges on the basis of their perceived significance. These included the availability of financial resources, the development of new capabilities and skills, the absence of a defined strategy, rigid leadership styles, employee engagement, support from the board of directors and trustees, and the creation of a "need" for change.

The responses collected from 118 participants provided valuable insights into these challenges, as illustrated in Figure 1. The findings highlight the key areas where NPOs in Lombardy experienced obstacles in their digital transformation efforts, offering a basis for understanding the broader implications of these barriers within the nonprofit sector.

The results revealed that the availability of financial resources is the most significant challenge in digital transformation for NPOs in Lombardy, with almost

45% of respondents identifying this as the most challenging issue. This finding aligns with prior research by O'Grady and Roberts (2019), which emphasised the critical role of financial support in driving successful digitalisation initiatives. Financial constraints are a common barrier for nonprofits globally, as they operate on tight budgets, making it difficult to invest in new technologies, personnel training, and necessary digital infrastructure. To address this challenge, NPOs may need to explore alternative funding sources, seek partnerships, or prioritise resource allocation to support their digital initiatives effectively.

The second significant challenge identified was the development of new capabilities. A recent study (Nahrkhalaji et al., 2018) revealed that the development of new capabilities and skills is one of the most vital challenges their NPOs faced during the digitalisation process. Moreover, according to a survey by the Nonprofit Technology Network (2022), 65% of nonprofits are investing in digital skills training for their personnel, reflecting the growing recognition of this need. Our study also suggests that Italian nonprofit personnel require the development of new capabilities and skills, and employee engagement in the process. This seems to indicate that, in addition to the technological resources that are required to ensure digital transformation, there is also a significant need for people with skills in different digital technologies. This highlights the importance of investing in employee training and development programs to enhance digital literacy and proficiency. NPOs should prioritise building a workforce equipped with skills in emerging technologies to ensure both the regular use and usefulness of technologies.

The lack of a defined strategy is ranked as the third challenge for the successful implementation of digital tools. The respondents highlighted the importance of defined leadership in shaping a clear vision and driving organisational transformation. Bălăcescu (2021)

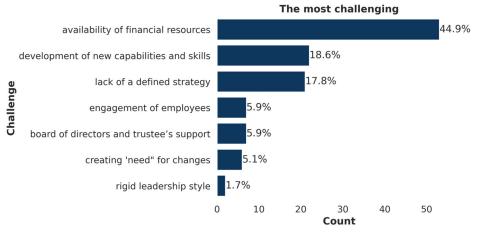


Figure 1. Ranking of digitalisation challenges

also enumerated a lack of goals, vision and strategy as barriers nonprofits face during digital transformation. Undoubtedly, a defined strategy helps organisations align their digital transformation goals with their overarching mission, reducing inefficiencies and fostering team alignment.

The next challenge was nonprofit employees' engagement. Engaging employees in the digital transformation process is crucial for its success. Regular training programmes for employees and communication that emphasise the benefits of digital tools can reduce resistance. Nonprofits must prioritise efforts to include employees in planning and decision-making, which will increase both motivation and adoption rates. Moreover, obtaining support from the board of directors and trustees is essential for securing resources, aligning strategic goals, and driving organisational change. Hence, creating a shared understanding of the need for digital transformation among all stakeholders helps ensure smoother implementation and adoption.

Interestingly, creating a "need" for change ranked lower among the challenges, likely due to the urgency created by the COVID-19 pandemic. Nearly 74% of nonprofits have acknowledged the necessity of digital transformation, reducing the need to convince stakeholders of its importance (Nonprofit Technology Network, 2022). Finally, rigid leadership was ranked as the least significant challenge by the respondents. This suggests that leadership adaptability was not a major obstacle for Lombardy NPOs in implementing digital tools. Leaders appeared responsive to the urgency of digital transformation, which likely contributed to the success of many initiatives during this period.

As illustrated in Figure 2, a significant majority (75%) of respondents reported that digital transformation had a positive impact on their organisations' efficacy, reflecting an overall optimistic perspective towards digitalisation. Approximately one-fifth of

the respondents perceived the effect as neutral, suggesting that while digital tools might not have revolutionised their operations, they nonetheless provided some level of utility or stability. Only 3% of the respondents viewed digital transformation as having a negative effect on their organisations' efficacy, indicating that challenges, such as financial constraints or technological resistance, were exceptions rather than the norm. These findings underscore the broader potential of digital tools and processes to increase operational efficiency, improve service delivery, and drive innovation within nonprofit organisations. The results contribute to the growing body of evidence acknowledging the benefits of digital transformation for nonprofits.

Those of the respondents who evaluated digitalisation's influence on their organisations' efficacy as positive were asked to identify the areas in which digitalisation helped the most, as shown in Figure 3.

A quarter of the respondents reported that the use of digital tools helped them reach larger audiences. Additionally, the recognition of acquiring new members as the second most influential area emphasises the role of digital strategies in attracting and engaging stakeholders. Almost 22% and 21% of the respondents revealed that digitalisation was beneficial for their organisation in the context of accessibility on the web and advanced financial reports and fundraising campaigns, respectively. These results highlight the value of digital technologies in enhancing transparency, efficiency, and donor engagement within NPOs.

Evidently, less than 4% of the respondents perceived a positive correlation between digitalisation and management improvement. Hence, this finding shows that NPOs need to further explore the potential of digital tools in enhancing organisational governance, decision-making processes, and overall efficiency. The rest of the responses revealed that the implementation of digital tools improved both external and internal

How would you evaluate the influence of the digital transformation process on the efficiency of your organisation?

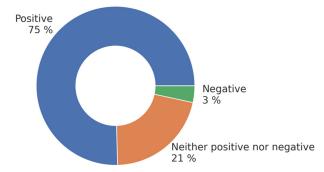


Figure 2. Digital transformation's influence on NPOs' efficacy

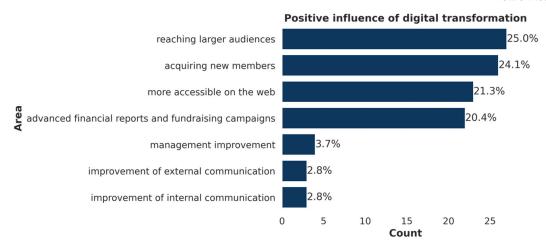


Figure 3. Digitalisation's positive influence

Source: created by the author

communication. For NPOs to stay competitive, it is vital to invest in digital tool implementation, as they underscore the transformative impact of digitalisation on fostering collaboration, engagement, and information sharing within NPOs. NPOs can leverage this study's findings to prioritise investments in digital technologies that enhance audience engagement, membership growth, web accessibility, financial transparency, and communication effectiveness. By addressing the identified areas of impact and exploring opportunities for further integration of digital tools, NPOs can continue to adapt and thrive in an increasingly digital landscape.

Furthermore, the data revealed that almost all of the respondents acknowledged that digitalisation had a positive effect on organisational functioning during the pandemic. And according to the data gathered (see Fig. 4), most respondents believed that digitalisation was essential for effective fundraising and collaboration with other NPOs.

This study's results are in line with the Nonprofit Technology Network (2022) survey results, where 90% of respondents reported using digital channels for fundraising and communications. One-fourth of this study's respondents believed that digitalisation helped their organisations recruit workers. These findings indicate that the widespread adoption of digital tools and platforms within the nonprofit sector to support fundraising efforts and enhance communication strategies is universal. Moreover, one-fourth of the respondents acknowledged that digitalisation had a positive effect on their organisation's ability to recruit a workforce. This finding highlights how digital tools can facilitate recruitment processes, streamline workforce management, and attract talent effectively within NPOs.

The vast majority of respondents acknowledged that the process of digitalisation is still an ongoing process for their organisation, while less than 15% believed that digitalisation is completed (see Fig. 5).

Next, we attempted to reveal the areas in which digitalisation is still in process, as shown in Fig. 6.

Over 35% of the respondents reported that the use of online project management software needs to be.

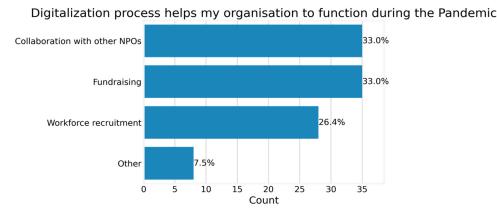


Figure 4. Perceived positive effects of digitalisation on NPO functioning

Do you agree that the digital transformation process is fully completed in your organization?

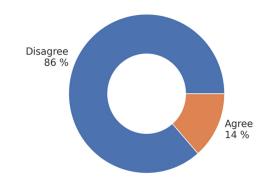


Figure 5. Lombardy nonprofits' current state of digitalisation

Source: created by the author

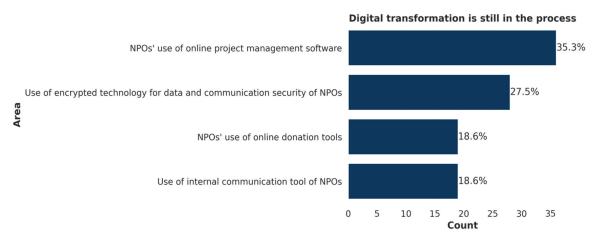


Figure 6. Areas in which digital transformation is in process

Source: created by the author

This suggests recognition among Italian NPOs of the importance of leveraging digital tools for efficient project management. Approximately one-third of the respondents believed that their organisation needed to use encrypted technology for data and communication security. This underscores the growing emphasis on cybersecurity measures within NPOs. Surprisingly, more than 18% of the participating NPOs are still working on implementing online donation tools. The rest of the responses indicated that there is still a need for digitalisation in internal communication tools. Hence, an increasing number of NPOs have realised the importance of effective communication systems to streamline operations and collaboration.

As shown in Fig. 7, approximately 65% of the respondents expressed the belief that digital tools will become an integral part of day-to-day operations for the vast majority of nonprofits in the post-pandemic world.

Moreover, approximately one-third of the respondents remained neutral regarding this statement. Only a percentage of the respondents disagreed with

the notion that digital tools will be a common feature in the daily operations of nonprofits in the future. These findings highlight that the majority of nonprofits anticipate a significant shift towards incorporating digital tools into their regular activities.

According to our data, the budgets of the majority of participating NPOs were revised during the pandemic, as illustrated in Fig. 8.

Furthermore, over half of the respondents reported an increase in their budgets (Fig. 9). This finding underscores that despite facing financial challenges, many NPOs recognise the critical role of advancing digitalisation in their operations.

Finally, we aimed to evaluate the extent to which participants agreed with the following statement: "In the future, only digitally transformed NPOs will be able to function successfully" (see Fig. 10).

A substantial majority of the respondents agreed with this statement, with 54% agreeing and almost 18% strongly agreeing. These findings highlight the widespread recognition among Lombardy NPOs of the critical role that digital transformation plays

In a post-pandemic world the use of digital tools will become part of the day-to-day reality for the vast majority of NPOs

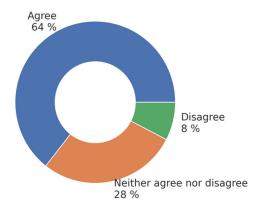


Figure 7. Use of digital tools in the post-pandemic world

Source: created by the author

The budget for financing digital transformation in your organisation been revised during the pandemic

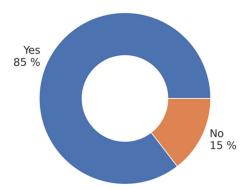


Figure 8. Budget for financing digitalisation

Source: created by the author

Revision of Digital Transformation Budget During the Pandemic: Increase vs. Decrease

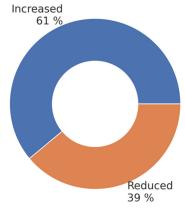


Figure 9. Revision of the digital transformation

Only digitally transformed NPOs will be able to function successfully in the future

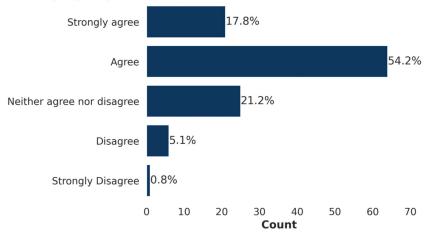


Figure 10. Anticipation of digitally transformed NPO functioning

Source: created by the author

in the future success of their organisation. Moreover, according to Rosecrans-Laxague (2024), NPOs with high digital maturity are 1.9x more likely (93% vs. 50%) to have experienced improvements in organisational efficiency or mission impact.

7. Conclusion

This study provides insights into the digital transformation challenges and advancements experienced by NPOs in Lombardy, Italy, during the COVID-19 pandemic. Using the technology acceptance model, this study examined key factors influencing technology acceptance and the integration of digital tools in the nonprofit sector. The findings indicate that digital transformation indeed had a largely positive effect on Italian NPOs, particularly in terms of enhancing communication, expanding reach, and increasing organisational efficiency. However, significant challenges, including financial constraints, skill gaps, and a need for strategic planning, continue to slow down progress for many organisations. Addressing these barriers through targeted investments, training, and strategic collaboration can support NPOs in fully realising the benefits of digitalisation.

The study's results underscore the broader relevance of digital tools for NPOs navigating the uncertainties of a post-pandemic world. By improving access to digital resources, NPOs can strengthen their resilience and adaptability, creating a more robust infrastructure for future crises and long-term sustainability. Additionally, the study highlights the need for nonprofits to align digital transformation efforts with mission goals to maximise stakeholder engagement and operational impact.

We encourage future studies to further investigate the impact of digitalisation on NPOs in other Italian regions, especially in post-pandemic settings, to gain a deeper understanding of the expectations and actual levels of digitalisation among Italian nonprofits. Exploring the regional variances in digitalisation levels could provide essential insights into the unique challenges and opportunities faced across Italy, contributing to a more comprehensive approach to digital transformation within the nonprofit sector.

Theoretical Implications

This study adds value to the TAM by applying it as a theoretical framework to understand the factors influencing technology acceptance digital transformation in Lombardy NPOs during COVID-19 pandemic. Furthermore, research enhances the existing body of knowledge by providing insights into how factors such as the "need" for change, the support of boards of directors and trustees, the engagement of employees, the availability of financial resources, the development of new capabilities and skills, the lack of a defined strategy, and leadership style impact the digital transformation process within NPOs. By addressing these factors within the context of Italian NPOs in Lombardy during a crisis such as the COVID-19 pandemic, this research contributes to a deeper understanding of technology acceptance and digitalisation processes in the nonprofit sector.

Moreover, this study emphasises the critical role of digital tools in supporting fundraising efforts, enhancing communication strategies, and streamlining recruitment processes within NPOs. This underscores the theoretical implications of digitalisation in optimising organisational operations and resilience during challenging times. Moreover, this study highlights the widespread recognition among Lombardy NPOs of the importance of digital transformation for future success. These findings highlight the theoretical

implications of digital maturity and its impact on organisational efficiency, mission impact, and goal achievement. They underscore the necessity for NPOs to prioritise digital transformation to remain competitive and effective in the evolving landscape. Therefore, the existing nonprofit and digitalisation literature can be expanded by adding important insights into the context of Italian NPOs.

Practical Implications

The findings of this study indicate that a significant majority of respondents perceived a positive impact of digital transformation on their organisations' efficacy, highlighting the benefits brought about by digital tools and processes. By leveraging digital technologies effectively, NPOs can streamline operations, improve communication, and increase their impact.

Moreover, the respondents identified key areas where digital tools have been most beneficial, including reaching larger audiences, acquiring new members, enhancing web accessibility, and improving financial reporting and fundraising campaigns. These findings emphasise the importance of investing in digital strategies to attract and engage stakeholders effectively. By prioritising digital tools that enhance audience engagement and membership growth, NPOs can expand their reach and impact.

Furthermore, the results revealed that the implementation of digital tools has improved both external and internal communication within NPOs. By investing in digital tools that facilitate effective communication and collaboration among team members and external stakeholders, NPOs can enhance their operational efficiency and organisational

effectiveness. Moreover, this study highlights the need for NPOs to remain competitive by investing in digital tools that align with their organisational goals. This strategic investment in digital transformation can help NPOs adapt to the evolving digital landscape and maximise their impact.

Overall, by translating this study's insights into actionable strategies and investments in digital technologies, NPOs can position themselves for success in an increasingly digitised environment while maximising their mission impact and operational efficiency.

Study Limitations and Future Recommendations

The study focused specifically on NPOs in the Lombardy region of Italy during the COVID-19 pandemic. This limited scope may restrict the generalisability of findings to other regions or contexts, as digital transformation challenges and experiences can vary on the basis of geographical location, organisational size, and sector. Moreover, a larger sample size could increase the statistical power and reliability of the study results.

The study relied on self-reported data from NPO personnel, who identified their roles as workers or volunteers. Self-reported data can be subject to response bias, where participants may provide answers that they perceive as socially desirable or that align with their organisation's image rather than reflecting their true experiences or opinions.

The results of this study could be enriched with semi-structured interviews with nonprofit leaders and personnel to get a deeper understanding of organisations' digital transformation journey.

References:

Amar, Z., Clough, L., Ramsay, N. (2020). The Charity Digital Skills Report. In The Charity Digital Skills Report 2020. Available at: https:/fundraising.co.uk/2021/07/14/60-of-charities-now-have-a-digital-strategy/

Bălăcescu, A. (2021). Visibility and communication of small NGOs in the context of digital transformation. *Journal of Research and Innovation for Sustainable Society*, 3(2), 201–208. DOI: https://doi.org/10.33727/JRISS.2021.2.22:201-208

Barclays (2021). Banco Alimentare della Lombardia: COVID-19 relief. Available at: https://home.barclays/sustainability/supporting-ourcommunities/barclays-covid-19-community-aid-package/charity-partnerhub/Banco-Alimentare-della-Lombardia/

Beyes, T., Chun, W. H. K., Clarke, J., Flyverbom, M., & Holt, R. (2022). Ten Theses on Technology and Organization: Introduction to the Special Issue. *Organization Studies*, 43(7), 1001-1018. DOI: https://doi.org/10.1177/01708406221100028

Bracci, E. (2023). The loopholes of algorithmic public services: an "intelligent" accountability research agenda. *Accounting, Auditing & Accountability Journal*, 36(2), 739-763. DOI: https://doi.org/10.1108/AAAJ-06-2022-5856

Brink, H., Packmohr, S., Vogelsang, K. (2020). Fields of Action to Advance the Digital Transformation of NPOs – Development of a Framework. In: Buchmann, R.A., Polini, A., Johansson, B., Karagiannis, D. (eds) Perspectives in Business Informatics Research. BIR 2020. *Lecture Notes in Business Information Processing*, 398. DOI: https://doi.org/10.1007/978-3-030-61140-8_6

Cavicchi, C., & Vagnoni, E. (2023). Digital information systems in support of accountability: The case of a welfare provision non-governmental organisation. *The British Accounting Review*, 55(5), 101112. DOI: https://doi.org/10.1016/j.bar.2022.101112

Chui, C. H. K., & Chan, C. H. (2019). The role of technology in reconfiguring volunteer management in nonprofits in Hong Kong: Benefits and discontents. *Nonprofit Management and Leadership*, 30(1), 89-111. DOI: https://doi.org/10.1002/nml.21369

Corvo, L., Pastore, L., Mastrodascio, M., & Tricarico, L. (2022). The Impact of COVID-19 on Public/Third-Sector Collaboration in the Italian Context. *Sustainability*, 14(4), 2228. DOI: https://doi.org/10.3390/su14042228

Davis, F.D. (1989). Perceived Usefulness, Perceived Ease of Use, and User Acceptance of Information Technology. *MIS Quarterly*, 13 (3), 319-339. DOI: https://doi.org/10.2307/249008

Deloitte. (2023). The digital innovation catalysts: CIOs in nonprofits. Available at: https://www.deloitte.com/ch/en/Industries/government-public/perspectives/the-digital-innovation-catalysts-cios-in-nonprofits.html

Dufft, N., Kreutter, P., Peters, S., Frieder, O. (2018). Studie-Digitalisierung-in-Nonprofit-Organisationen.pdf. In: Zukunftsorientiertes Stiftungsmanagement, 105–115.

Ergado, A. A., Desta, A., & Mehta, H. (2021). Determining the barriers contributing to ICT implementation by using technology-organisation-environment framework in Ethiopian higher educational institutions. *Education and Information Technologies*, 26(3), 3115–3133. DOI: https://doi.org/10.1007/s10639-020-10397-9

GDPR Advisor (2023). GDPR Compliance for Nonprofit Organisations: Balancing Transparency and Donor Privacy. Available at: https://www.gdpr-advisor.com/gdpr-compliance-for-nonprofit-organisations/

Godefroid, M.-E., Plattfaut, R., & Niehaves, B. (2024). Identifying key barriers to nonprofit organizations' adoption of technology innovations. *Nonprofit Management and Leadership*, 35(1), 237–259. DOI: https://doi.org/10.1002/nml.21609

Hertzog, M.A. (2008). Considerations in determining sample size for pilot studies. *Res. Nurs. Health*, 31, 180-191. DOI: https://doi.org/10.1002/nur.20247

Italian Coalition for Civil Liberties and Rights (2020). Coronavirus: NGOs and Philanthropists Stepping Up During the Pandemic. Liberties.eu. Available at: https://www.liberties.eu/en/stories/coronavirus-ngos-philanthropists-step-up-pandemic/18707

Johanson, G. A., & Brooks, G. P. (2009). Initial Scale Development: Sample Size for Pilot Studies. *Educational and Psychological Measurement*, 70(3), 394-400. DOI: https://doi.org/10.1177/0013164409355692

Kaplan, A., & Haenlein, M. (2019). Digital transformation and disruption: On big data, blockchain, artificial intelligence, and other things. *Business Horizons*, 62(6), 679–681. DOI: https://doi.org/10.1016/j.bushor.2019.07.001

O'Grady, J., & Roberts, P. (2019). The Digital Transformation of Irish Non-Profit Organisations. In: *Proceedings of AICS*, 388–399.

Oleandri, A. (2020). Coronavirus. ONG e filantropia in prima linea contro l'emergenza. cild.eu. Available at: https://cild.eu/blog/2020/04/06/coronavirus-ong-e-filantropia-in-prima-linea-contro-lemergenza/

Madianou, M., Ong, J. C., Longboan, L., & Cornelio, J. S. (2016). The Appearance of Accountability: Communication Technologies and Power Asymmetries in Humanitarian Aid and Disaster Recovery. *Journal of Communication*, 66(6), 960–981. DOI: https://doi.org/10.1111/jcom.12258

Moll, J., & Yigitbasioglu, O. (2019). The role of internet-related technologies in shaping the work of accountants: New directions for accounting research. *The British accounting review*, 51(6), 100833. DOI: https://doi.org/10.1016/j.bar.2019.04.002

Nahrkhalaji, S.S., Shafiee, S., Shafiee, M., Hvam, L. (2018). Challenges of Digital Transformation: The Case of the Nonprofit Sector. In: 2018 IEEE International Conference on Industrial Engineering and Engineering Management (IEEM), 1245–1249. DOI: https://doi.org/10.1109/IEEM.2018.8607762

Nonprofit Technology Network (2022). Bringing Nonprofits Together Maximises Tech Solutions for Social Impact. Available at: https://data.org/stories/nethope-brings-nonprofits-together/

26. Radu, A., Jonathan, G.M. & Perjons, E. (2024). Barriers to Digital Transformation in Nonprofit Organisations. In B. Marcinkowski, A. Przybylek, A. Jarzębowicz, N. Iivari, E. Insfran, M. Lang, H. Linger, & C. Schneider (Eds.), Harnessing Opportunities: Reshaping ISD in the post-COVID-19 and Generative AI Era (ISD2024 Proceedings). Gdańsk, Poland: University of Gdańsk. ISBN: 978-83-972632-0-8. DOI: https://doi.org/10.62036/ISD.2024.19

Rosecrans-Laxague. M (2024). Nonprofit Trends Report: How Nonprofit Organizations Are Transforming Their Salesforce & Reaching Goals. In: *Salesforce*, 5. Available at: https://www.passagetechnology.com/passagetechnology-blog/nonprofit-reaching-goals

Vogelsang, K., Packmohr, S., & Brink, H. (2021). Challenges of the Digital Transformation-Comparing Nonprofit and Industry Organizations. In F. Ahlemann, R. Schütte, & S. Stieglitz (Eds.), *Innovation Through Information Systems*, 297-312. DOI: https://doi.org/10.1007/978-3-030-86790-4_21

Vivaldi, E., & Addis, P. (2021). European Commission: Directorate-General for Employment, Social Affairs and Inclusion. Digitalisation and digital transformation in Italy: implications for persons with disabilities. Available at: https://data.europa.eu/doi/10.2767/569077

Westerman, G., Bonnet, D., & McAfee, A. (2014). The nine elements of digital transformation. *MIT Sloan Management Review*, 55(3), 1-6.

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