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THE ROLE OF PROJECT MANAGEMENT COMPETENCES IN THE SUCCESS OF DIGITAL TRANSFORMATION PROJECTS: THE CASE OF A NON-PROFIT ORGANISATION

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Abstract Numerous organizations started their digital transformation (DT) efforts in recent years, particularly through IT infrastructure enhancements aimed at managing data and facilitating communication among stakeholders at both organizational and project levels. This trend is particularly noticeable among non-profit organizations (NPOs) that manage projects. Nonprofit organizations (NPOs) constitute a significant segment of society, leveraging the skills of both paid staff and volunteers as a vital catalyst for civil society. This paper initially explores the theory of socio-technical system design (STC), within which the evolution of NPOs is situated. Second, a literature review on the digital transformation of NPOs and in particular the case of one international NPO is described. Thirdly, the authors analyse how the competence of result orientation (RO) of the project team mediates and personal communication (PC) moderates DT's introduction in an NPO to accomplish project success. Among the major findings, the paper shows that DT eases the work in the projects, the data management and transparency, and favours both project efficiency and project effectiveness. The paper also reveals the mediating role of RO of the project team and the moderating role of PC help to achieve project success. DT and IT systems integration has its limits with impacts on project success.

Keywords: Digital transformation, IT infrastructure structure, Non-profit organisations, Personal Communication, Project Success, Socio-technical system design (STC) theory.

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1. INTRODUCTION

The theory of socio-technical systems (STS) introduces the notion of the operational system, which merges social and technical elements across various levels, including workplaces, projects, organizations, and industries (Appelbaum, 1997). The main objective of STS is to improve the quality of working life of people. The quality of working life is perceived as a consequential result of deliberate choices made in the design of socio-technical systems. Firstly, we will show that the Socio-Technical Systems Design approach provides a foundational framework for comprehending the necessity of integrating both human-oriented and technological aspects when undertaking organizational transformations, particularly those involving digitalization. In the subsequent section, we conduct a concise review of the literature concerning digital transformation within non-profit organizations (NPOs) and proceed to elucidate through a case study featuring Rotary International. In the third section, we delve into the role of result orientation as a mediating factor and communication as a moderating factor in facilitating project success during digital transformation within an NPO. Moving on to the fourth section, we outline the research methodology employed. Subsequently, in the fifth section, we analyze the coding results and derive conclusions.

2. LITERATURE REVIEW:

2.1 DIGITAL TRANSFORMATION OF NPOS

Nonprofit organizations play a significant role in civil society, contributing both to the gross domestic product of their respective countries and to employment opportunities (Powers, 2019). The digital transformation (DT) of organizations, including NPOs, is frequently praised as a remedy for organizational hurdles, generating enhanced efficiency and effectiveness at the project level. Some authors have likened the disruption brought about by DT in organizations and projects to the advent of electricity two centuries ago (Ng, 2018). NPOs undergo radical transformations to thrive in the emerging digital landscape and often tackle their challenges through various projects.

The paper concentrates on the impact of DT at the project level. Despite facing numerous challenges, the opportunities presented by digital transformation remain uncertain. Both the creation of digital value and digitally facilitated customer communication can potentially confer competitive advantages. NPOs must produce extra efforts in recruiting volunteers who possess project management skills to maintain the organization's appeal (Vogelsang, Packmohr, & Brink, 2021). This in turn will help to achieve the expected success of digital transformation projects.

2.2 ROTARY AND ITS DIGITAL TRANSFORMATION STRATEGY

2.2.1 THE NPO ROTARY INTERNATIONAL (RI)

RI is an international service organization whose stated human rights purpose is to bring together business and professional leaders to provide humanitarian services, encourage high ethical standards in all vocations, and advance goodwill and peace around the world since 1905. It is spread across 200 countries with a membership of 1.22 Million individuals (essentially volunteers), spread over 35,000 clubs. As Rotary International embarked on a new leg of its ongoing digital transformation journey, member engagement took centre stage. Their main field of action is focused on 7 fields: promoting peace (encourages conversations to foster understanding within and across cultures), fighting disease, providing clean water, sanitation, and hygiene, saving mothers and children, supporting education, growing local economies and protecting the environment. The strategic goals are interconnected, with digital transformation serving as a central pillar that requires a dedicated project team to achieve its objectives.

2.2.2 DIGITAL TRANSFORMATION APPROACH IN THE RI

In the RI, digital transformation involves "ways of sustaining the organisation in the longer run" (Haisman, CIO of RI, 2024). It consists of a digitization programme for the administration of districts and clubs. The programme evolves with new features and functionalities every few weeks. The following key objectives need to be achieved through DT according to:

- Increase volunteer engagement and membership
- Processing grants of the foundation (\$200 million), including applications, approvals, and the distribution of funds
- Fundraising and donor management (digital campaigns)
- Learning Management System to provide leadership development to its members
- Migration from a historically grown obsolete IT system into a more integrated, global financial and budgeting solution across all Rotary's international offices.
- Addressing the challenge of finding the right IT staff

"Developing a definition of digital transformation in the context of Rotary's needs and goals at the start of the project was an essential step that led to its current success and will keep it on track in the future" according to Haisman. RI was supported by an external service provider to provide expertise in assessing and developing a comprehensive digital strategy and roadmap.

The DT project is an organisational transformation project where a matrix organization was introduced (IT and its unit became more cross-functional than before).

2.2.3. THE PROJECT TEAM

As a programme manager, Haisman, who took the reins as CIO in 2023 inherited Rotary's ERP migration from PeopleSoft to Oracle Cloud. The process has been underway for quite some time, which may be beneficial to the organization, as one of the most common reasons for failed implementations is a lack of time to go through the extensive process. As it became clear that the Oracle team would eventually stop supporting PeopleSoft, upgrading their 20-year-old onprem ERP system gained importance. With his project team, the program manager has many different stakeholders to satisfy. Even though the project has only started in 2023, the topic has been initiated for many years even before Covid 19. As in the RI, Nahkhalaji et al. (2018) recognized in a study many NPO key challenges which are summarized in Figure 1.

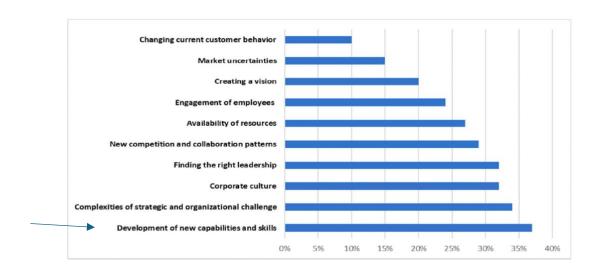


Figure 1: Challenges of Non-Profit Organisations (Nahkhalaji et al, 2018)

The arrow shows the development of new capabilities and skills as the most critical challenge. It includes the need for people competence, in particular, result-orientation of the project team and personal communication of the project managers. These particular competences will be needed even more in the DT project of the NPO. In general, the IT infrastructure being designed encompasses a multitude of organizational requirements spanning technology, information systems, migration planning, implementation, governance, architectural vision, business architecture, change management, and management.

3. RESULT-ORIENTATION AND COMMUNICATION: ONE MEDIATING AND ONE MODERATING FACTOR FOR THE INTRODUCTION OF DIGITAL TRANSFORMATION TO REALIZE PROJECT SUCCESS

As mentioned in the first chapter, Social-technical systems (STS) theory addresses technical and behavioural competences. The second one is of critical importance as they can mediate between two factors: the DT of the NPO and project success. As an example of behavioural competences, the author has chosen the result orientation of the project team as a mediating factor between DT and project success. "Result-orientation is the critical focus maintained by the individual on the outcomes of the project" (IPMA, 2015, p. 96). The same applies to a project team as the sum of individuals working together to achieve a certain goal.

As a moderating factor between DT and project success, the author focuses on personal communication. When conducted unprofessionally, personal communication has the potential to erode trust among project stakeholders. Effective personal communication stands as a cornerstone competency for project managers, integral to their leadership skill set and encompassing both verbal and non-verbal forms.

The objective is to clarify, on the basis of the Chen and Lin (2018) model how the result orientation of the project team and personal communication as two factors determining the impacts of the introduction of DT to achieve project success in the NPO. This is performed on the basis of a qualitative methodology which will be described in the following section.

4. RESEARCH DESIGN

Baring in mind the challenge of developing new competences of project managers when undertaking digital transformation projects in an international NPO (figure 2), this paper highlights the impact of result orientation and personal communication as mediating and moderating factors for the introduction of DT, which in turn impacts project success. We carried out one to one interviews with 7 stakeholders involved in the DT projects taking the example of the RI. Responding to 10 questions, the stakeholders' answers were meticulously recorded, transcribed, and coded to extract first- and second-order concepts. The initial coding process facilitates our analysis of the responses, providing a foundation for the summary and discussion presented in section 5 of this paper. We conducted interviews with seven individuals, each characterized by their roles and profiles as outlined in Table 1.

Certified in project management	Function in the organisation (RI)	Role in the project
Yes	Chief information Officer of RI	Member of Steering Committee
No	Member of the board of a RI Club	Project Manager
No	Incoming President of RI Club	Project Sponsor
No	Past-President of RI Club	Project Sponsor
No	Past-President of a RI Club	Client
Yes	Secretary of a RI Club	Team member
No	Board Member of the RI District	Steering Committee member

Table 1: Characteristics of interviewed project stakeholders (own creation)

The next chapter addresses the different concepts and features quotes elaborated based on the interviews that took place with stakeholders described in Table 1.

5. RESULTS AND DISCUSSIONS

5.1 MEANING OF DIGITAL TRANSFORMATION

We queried various project stakeholders regarding their understanding of digital transformation within a project framework. Respondents highlighted the incorporation of new technologies like artificial intelligence to foster result-orientation, optimize data utilization and analysis, and enhance overall decision-making and outcomes.

In the project context, digital transformation encompasses "enhancing project management support and optimizing data utilization to enable improved decision-making, thereby boosting project efficiency".

It also is considered a need to cope with the evolution of the times, and to address younger members (including digital members) who would probably not join if the digital tools were not introduced in the NPO.

Importantly, some emphasized that DT in project settings should serve as a means to an end rather than an end in itself.

5.2 DIGITAL TRANSFORMATION IMPACT ON PROJECT SUCCESS

From the literature review, we can confirm that the impact of digital transformation enhances data accuracy, improves the precision of status reports and forecasts, and increases data transparency. "It also includes aspects such as increased customer/stakeholder satisfaction, increased project control, better team satisfaction and receiving the right information with a single button click" (Saidoun & Bodea, 2021, p. 35). In the following subsections, we will delve into the detailed analysis of how DT affects various aspects of project success.

5.2.1 DIGITAL TRANSFORMATION IMPACT ON PROJECT SCHEDULE

The respondents underline that DT "will improve the respect of the defined project schedule and help stick to the overall plan".

Interestingly one respondent mentioned, "delays in the first phase of the project related to the adoption of new IT tools will be offset along the project once the project stakeholders become familiarized with the new tools and platforms".

5.2.2 DT IMPACT ON PROJECT BENEFITS

The benefits of a project are part of the approach to project success according to (Ika & Pinto, 2022). Some respondents recognised that "DT improves the accessibility of existing members to more services and information that was previously unknown to them. It will also rejuvenate the membership, increase the number of members and reduce expenses that previously occurred through physical meetings and the need to travel". Furthermore, Decision-making velocity, planning and execution speed, rapid data aggregation, and data analytics (Saidoun & Bodea, 2021, p. 37) were also mentioned as benefits of DT's impact. "Increasing the reach out of people and getting more volunteers engaging in RI projects" was mentioned as a benefit of DT's impact on project benefit. Lastly, a respondent underlined that DT benefit "consists in the provision of standardised data, striving for a single source of truth, reduce the number of segmented systems and improve general data quality".

5.2.3 DT IMPACT ON PROJECT INNOVATION

Following some respondents, IT literacy will increase. New solutions are brought along thanks to the integration of silos of knowledge and precious data that can be better valued for example through AI". While one respondent mentioned that "DT hast not any impact on project innovation", most responded that "DT increase data security through a modern cloud-based

environment, it helped to focus on value and content and improves the overall business process".

5.3 RESULT ORIENTATION, A MEDIATING FACTOR FOR THE INTRODUCTION OF DT

A result-oriented project team is driven by the desire to achieve specific outcomes, and their collaboration and collective efforts are directed towards reaching those objectives (Bhushan, 2021). The competence element result orientation (RO)as one of the challenges faced by NPOs can either mediate or moderate the effect of the introduction of DT in NPOs toward project success.

Based on the model developed by (Chen & Lin, 2018), we will address in the following section result-orientation as a mediating factor between the project managers' competences and project success. As was mentioned by one interviewed expert, "The result-orientation of the project team strongly helped to introduce the new platform despite the resistance of some stakeholders that were in favour of another platform as they were not willing to understand the benefits of the new platform agreed upon." The result orientation of the project team is seen by all respondents "as the strong mediator between DT and project success" in the sense "that it helps to stick to the project roadmap and reduces the risks from deviation from it due to external factors". On respondent added that "result-orientation as a competence element does not help if the objectives related to project success are not clearly defined among the project stakeholders, which is often the case in our NPO". In this sense, RO still mediates between DT and project success but not with the expected effect.

5.4 PERSONAL COMMUNICATION: A MODERATING FACTOR FOR THE INTRODUCTION OF DT

Personal Communication plays a vital role in effective leadership in projects. It serves as a cornerstone for building trust, fostering collaboration, inspiring action, setting expectations, and achieving organizational goals (Koester & Lustig, 2012). Overall, "communication emerged as a positive moderator of DT introduction, as highlighted by all participants. They cited two main reasons: firstly, "communication is crucial for fostering team cohesion prior to project start. Secondly, it was viewed as a facet of the project manager's leadership, guiding the team towards project success". However, it was recognized that "communication is not always well mastered and therefore slows down the DT introduction. The tools are there but they are not used, even if reminding emails are sent to the members". Another interviewed person mentioned that "communication will improve project schedule and a robust communication plan related to the project is important to lead to project success".

Moreover, communication serves as a moderating element by bolstering project oversight and diminishing resistance to change. In transformational endeavors impacting both project and organizational cultures, "resistance to change is perceived as a typical occurrence that impedes program/project advancement". In one exception, the communication was seen as negatively moderating the relationship between DT and project success. The reason was that "despite all the communication we did, still many people do not consult the online platform and the app introduced where we display much information of the RT and their local, national and international activities".

6. CONCLUSIONS

Utilizing qualitative research methodology, we were able to explore within the framework of a project managed by a non-profit organization the diverse understandings and perceptions of digital transformation moderated and mediated by two competence elements to achieve project success.

Initially, stemming from the socio-technical system design (STC) theory, the majority of respondents in the study concur that digital transformation involves integrating new technology and communication tools within an organization. This facilitates project tasks, enhances data management, transparency, and augments both project efficiency and effectiveness.

Second, the result orientation of the project team as one social element of the system design theory is an important mediating factor for the introduction of DT. It contributes to increasing project innovation, project benefits and a better respect for project schedules. Thirdly, interpersonal communication acts as a moderating factor, and the social aspect of the STC theory aids in mitigating resistance to change within the organization. It fosters the view of digital transformation as an opportunity that enhances project success within an NPO context. Fourthly, nearly all respondents recognized that the introduction of DT positively influences project schedule, project benefits, project quality, and project innovation.

Fifth, DT impacts the project management process and the project outcomes can only be realized if other success factors are borne in mind. This includes assessment of the maturity of the organization in terms of IT, training and development of IT competence, and the need for strong people competence.

Sixth, even though NPOs strive for standardization and integration of tools, it must be realised that a "one size fits all approach" is a utopia and that in the field many different systems and technologies will prevail in the same organisation.

Finally as was mentioned by several interviewed project managers "Digital transformation should be regarded as a tool to achieve objectives rather than an end in itself, to enhance project success in an NPO."

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