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IN SEARCH OF THE FACTORS FOSTERING GREEN PROJECT MANAGEMENT IN NONPROFIT ORGANIZATIONS: RESEARCH RESULTS FROM POLAND

This article addresses the insufficiently researched topic of Green Project Management (GPM) in nonprofit organizations (NPOs). Factors supporting the application of GPM in NPOs can be identified among both external conditions (e.g., environmental policy, funder requirements) and internal conditions related to the specificity of the functioning of the NPO (e.g., size, forms of employment, sources of financing, project management solutions). This article aims to contribute to the discussion on the factors facilitating GPM in NPOs. The focus is specifically on the frequency of GPM practices in the areas of People, Planet, and Prosperity during project implementation. The study employed a quantitative survey using the CAWI technique; the respondents were individuals representing NPOs in Poland with project experience.

Keywords: project management, green project management, GPM, nonprofit organizations, NPOs, sustainable development.

1. INTRODUCTION

The literature highlights the emergence of several new research trends in the field of project management, emphasizing a shift from exclusively addressing technical problems to studying the organisational and social context of projects (Jacobsson, Jałocha, 2018; Pollak, Adler, 2015). One such area is sustainable project management. In September 2015, the UN program “Transforming our World: 2030 Agenda for Sustainable Development” and the Sustainable Development Goals were adopted. This agenda pertains to the activities of individual organisations and is based on the triple bottom line model, illustrating the

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equivalence of three spheres/lines of development referred to as the Triple P: People, Planet, and Profit/Prosperity. Sustainability entails the harmony of economic, social, and environmental sustainability that is achievable through a project approach (Silvius, Schipper, 2014).

Research in the literature (Wawak, Woźniak, 2020) indicates that sustainable project management is a growing trend evident in project management publications. In the literature, the terms Green Project Management and Sustainable Project Management are often used interchangeably. It is also emphasized that although “green” was initially considered more of a business term, promoted more by the press than by the scientific community (Baines et al., 2012), it has now become a permanent part of the subject of project management. In general terms, the “green” approach means “the application of environmentally and socially sensitive practices to reduce the negative impact of [...] activities while, at the same time, harmonizing the pursuit of economic benefits” (Baines et al., 2012). However, the issue is rarely discussed from the perspective of nonprofit organisations (NPOs). At present, considerations in this area mainly refer to business organisations, but it seems inevitable to adapt this approach also in the area of projects carried out in NPOs, particularly since many NPOs orient their activities toward solving social or environmental problems. The identified research gap argues in favor of undertaking research within the indicated topic.

Projects in a not-for-profit organisation are largely geared toward community-wide needs. Therefore, conducting research in the area of GPM is essential both from a cognitive perspective and for the practical needs of managing NPOs (Saidoun, 2020; Subedi, Wagner, 2018).

In this context, the aim of the article is to identify factors favouring GPM in NPOs operating in Poland. Following the TBL model, attention was given to the frequency of GPM practices in the areas of People, Planet, and Prosperity.

2. THEORETICAL BACKGROUND

2.1. GPM in NPOs

Unlike the business sector, NPOs focus on achieving socially relevant goals (Shumate et al., 2018) and meeting the needs of the local community (Glover et al., 2014). These organisations have a significant impact on both society and the environment. They are treated as institutions of civil society that encourage interaction and organising around a common goal, giving these initiatives a formal character. In these organisations, projects are most often carried out by volunteers who identify with the goals and values of the NPO, voluntarily belong to the organisation in question, and are not paid for their work.

Projects in NPOs play a key role in fulfilling the mission and achieving established social, educational, environmental, etc., goals. They often aim at improving the quality of life in the local environment as well as solving more complex problems. They are characterised by great thematic diversity and a range of activities undertaken. They are oriented toward meeting the needs of both direct beneficiaries and other stakeholders. In NPOs, projects are based on the work of volunteers and cooperation with different actors, among which other NPOs, local authorities, the local community, or business companies can be identified. The contact between NPOs and the business community influences the development of management methods and techniques and provides opportunities to improve quality, timeliness, reduce costs, as well as optimise many processes and develop innovative practices (Moshtari, Vanpoucke, 2020). It also allows for better solving of social

problems, distributing donor support more efficiently, and minimizing waste (Taysir, Taysir, 2012). A visible, current trend in business operations is GPM. Organisations are emphasising the need for project managers to include sustainability in project management as their professional responsibility (Silvius, Schipper, 2016). Sustainability is based on the TBL model (Carboni et al., 2020). The model illustrates the equivalence of three spheres, referred to as the Triple P: People, Planet, and Profit/Prosperity. The Sustainable Development Goals refer to the UN resolution (Transforming our World: the 2030 Agenda..., 2015). They include areas such as combating poverty and hunger, tackling climate change, preventing economic and social inequalities, pursuing sustainable consumption, as well as peace and justice, and promoting strong, sustainable, inclusive economic development, among others (Carboni et al., 2020).

GPM is becoming increasingly prominent in project-oriented organisations. It is an environmentally friendly project management that enables environmentally conscious decisions at different stages of a project (Silvius et al., 2017). GPM is also defined as “a way to ingrain green thinking” into every project management process (Maltzman, Shirley, 2010). GPM practices help organisations to align with their strategy and become more environmentally focused. In this way, project managers with an environmental, people, and efficiency orientation look for ways to improve processes to minimize project costs without sacrificing quality. Carvalho and Rabechini Junior (2015) noted that GPM can be viewed from two perspectives: internal or external. The internal perspective is linked to the project life cycle, knowledge areas, and process groups and also relates to project team members. The external perspective, on the other hand, is linked to the project's impact on society and the environment in the long term. Projects and their management are recognized as a “way to make companies sustainable” (Huemann, Silvius, 2017). Project-oriented organisations require relevant (so-called green) information, which may include knowledge about innovation or green technologies (Singh et al., 2022). GPM practices can be crucial in introducing sustainable management, in an effort to minimise costs, save energy and water, or reduce CO₂ emissions.

In NPOs, on the other hand, GPM can support the effective management of budgets and human resources. This is crucial because these organisations struggle to finance their activities, and trust and willingness to support an organisation increase when it presents concrete results of its activities and shows the change that has occurred due to its activities (Charycka et al., 2023). GPM is aimed at implementing projects in a transparent, honest, and ethical way that includes the active participation of different stakeholders (Silvius, Schipper, 2010). It can, therefore, improve the image of NPOs and foster fundraising from different donors. There is a high turnover among the volunteers who make up project teams, so motivating them and keeping them engaged throughout the project is a major challenge (Seiler, Bortnowska, 2020). GPM can support project teams to acquire ecological knowledge and develop the responsible use of resources, while at the same time providing ample opportunities to develop competencies and care for their needs, as well as the needs of potential service recipients (rather than the needs of the organisation) – taking into account their scale and hierarchy (Marciszewska, 2014).

2.2. Enabling factors for GPM in NPOs – hypotheses development

The presented article aims to identify conditions conducive to the implementation of sustainable project management in NPOs. However, to meet this aim, it is useful to focus on factors that can stimulate sustainable project management. Given the consideration of the use of GPM in NPOs, the focus was on factors that primarily characterise the project

management process precisely in these organisations (Marciszewska, 2019; Trocki et al., 2020) and may favour the implementation of GPM (Carboni et al., 2020). Among these, project experience, knowledge in the area of project management (project management knowledge), training programs in this area and IT support for project activities.

Project management knowledge plays a key role in successful project management. It includes information and skills related to project planning, implementation, and control, but also to the latest trends in the field of project management. Project management knowledge should be considered from the point of view of project implementation as a useful resource of information that facilitates project implementation. It influences the quality of the results obtained, the satisfaction of project stakeholders, and the effective management of resources allocated to project implementation (Wyrozębski, 2014). Among recently emerging trends in project management issues related to sustainability, digitality or AI use arise very often. According to Malik et al. (2023), due to economic uncertainties, project complexities, cost overruns, pollution prevention, or green production expectations, sustainability is imprinted into the contemporary project management scenery, and green knowledge capabilities are essential in developing sustainable procedures committed to the methodology of GPM. Therefore, the following hypothesis may be formulated:

H1(a–c): *The higher the level of project management knowledge in an organisation, the greater the frequency of applying GPM solutions (People (a), Planet (b), Prosperity (c)).*

The source of knowledge, as well as skills, is project experience (experience in project implementation and management). The combination of knowledge and practical experience can be considered the foundation for successful project management (Schindler et al., 2003). Project experience facilitates a better understanding of project processes; project managers with longer experience often have a better understanding of typical project problems, making it easier for them to plan project phases and control activities. Project experience also manifests in the ability to adapt to change and respond flexibly to unforeseen situations. It also translates into better risk discernment and faster decision-making. According to this, the following hypothesis may be formulated:

H2(a–c): *The greater the project experience, the higher the frequency of GPM solutions (People (a), Planet (b), Prosperity (c)).*

Gaining knowledge and learning from project experience is an important issue in project management. However, project managers and project team members acquire skills, tools, and techniques not only through experience but also through training. We are then dealing with the transfer of so-called explicit knowledge. During training, knowledge is also imparted about new trends in project management, new technologies, and project opportunities. Thus, investing in various types of project management training – by shaping awareness of the importance of developing sustainable procedures committed to the methodology of GPM – has the potential to encourage the greater use of GPM practices. Therefore, the following hypothesis may be formulated:

H3(a–c): *There is a positive relationship between the implementation/existence of a project management training program and the frequency with which sustainable project management practices (GPM practices) are applied in NPOs generally and in specific areas ((a) People, (b) Planet, (c) Prosperity).*

IT project management support helps organisations manage projects effectively. However, implementing such a system requires adequate preparation (i.e., an analysis of the needs of a given organisation, the selection of an appropriate solution/tool, and user training). It is worth noting, however, that this support can include the use of project, program, or portfolio management software but can also serve as a tool for communication and collaboration within a project team. Among the benefits of its use, streamlining processes, increased efficiency, and cost reduction, but also the achievement of pro-environmental effects, are mentioned above all. This emphasizes the advantages of using this type of support, especially in the GPM area, and points it out as a factor favouring GPM (Carboni et al., 2020). In the context of the above, the following hypothesis can be formulated:

H4(a–c): *In organisations using IT support for the project management process, the frequency of application of the solutions in (People (a), Planet (b), Prosperity (c)) is higher.*

The diagram illustrating the adopted research hypotheses is presented in Figure 1.

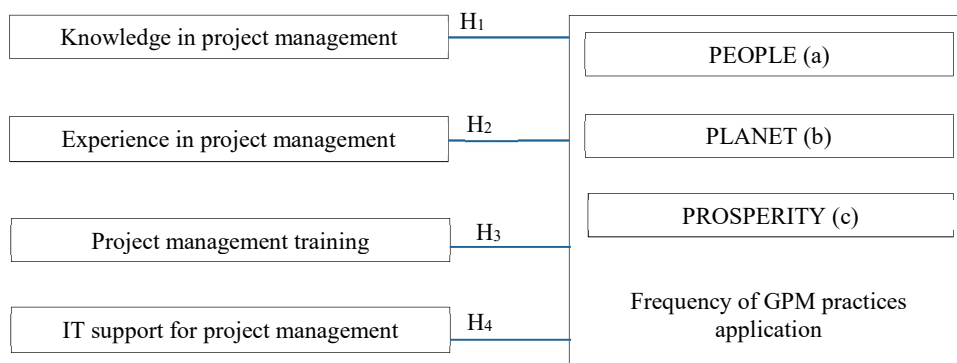


Figure 1. Enabling factors for GPM in nonprofit organisations

Source: Own study.

3. RESEARCH METHODOLOGY DESCRIPTION

The aim of the study was to determine whether a specific project management related factors (knowledge, experience, training and IT support), can promote more frequent use of GPM practices in NPOs. The research process consisted of several steps. First, a literature review and a study of project management in NPOs, GPM, and GPM in NPOs were conducted. Publications were searched in the scientific databases Scopus, WoS, and polish scientific base BazEkon. The search, conducted both in Polish and English, was limited to scientific publications from 2013–2023. Search criteria were defined, and keywords were selected. Boolean operators were used, considering the following phrases: “Project management AND nonprofit organisations”, “Green Project Management AND nonprofit organisations”, “GPM AND NPOs”, “Sustainable project management AND nonprofit organisations”, “Project management AND Green Project Management AND nonprofit organisations”, “PM AND GPM AND NPOs”. The search confirmed that a relatively small number of publications deal with issues linking GPM and project

activities of NPOs. The results of the literature research made it possible to identify factors that favour GPM in NPOs, establish research hypotheses (presented above), and design a quantitative study.

3.1. Data gathering process and characteristics of the research sample

The research presented in this paper are part of a broader study focused on GPM in NGOs. The survey was conducted using the CAWI method, and the research process was carried out in few stages between January and May 2023. The respondents were nonprofit (NPO) organisations in Poland. The questionnaire was addressed to and completed by people who have the widest possible knowledge of project management in NPOs (62.2% members of NPO boards, 22.2% persons acting as project coordinators/managers, and 15,6% other members of the organisation). Purposeful sampling was used. The survey was conducted on a group of 45 nonprofit organisations and the total return rate of the questionnaires was 5.14%. Detailed information on the surveyed NPOs is presented in Table 1.

Table 1. Research sample characteristics

		Registered association [n]	Foundation [n]	Sum	
				[n]	[%]
Public Benefit Organisation (PBO)	yes	14	12	26	57.78
	no	8	11	19	42.22
NPOs Age	up to 5 years	3	5	8	17.78
	6-10 years	1	3	4	8.89
	11-15 years	3	3	6	13.33
	16-20 years	4	3	7	15.56
	over 20 years	11	9	20	44.44
Project management training	yes	4	5	9	20.00
	no	18	18	36	80.00
IT Support of Project Management	yes	13	14	27	60.00
	no	9	9	18	40.00

Source: own research.

Almost all surveyed NGOs (except of two of them) operate only in Poland: 20% operates on local market, almost 38% – on regional market and the same amount (app. 38%) on domestic market. The registered associations operate rather on the local market, while foundations on the domestic one, and this tendency is confirmed by the results of the results of the Chi-square test ($\chi^2(3, N=45)=8.054$; $p=0.045$). The vast majority of the surveyed NGOs are experienced organisations – 60% of them operates on market 15 years or more. The experience of the surveyed NGOs in project implementation (measured in years and in the number of projects completed) is varied. Almost a half of them (49%) declares that implements a few, single projects, while the other group implements many projects continuously and in parallel. The surveyed sample includes organizations with long experience in project implementation (44.4% of them declares such a way of acting for over 15 years), as well as rather short – up to 5 years (28,9%), using rather the traditional (waterfall) methods (82.2%), than the Agile methodology (17.8%).

3.2. Variables measurement

In order to examine the proposed hypotheses, five key variables were defined: Knowledge in Project Management (*KnowPM*), Experience in Project Implementation (*ExPIY*), Project Management Training (*PMT*), Organizational IT Support of Project Management (*ITSup*) Standard of Sustainable Development and Social Responsibility (*SDStd*) and the frequency of application of the Green Project Management practices (*GPM Practices*) with supporting variables: People, Planet and Prosperity.

Knowledge in Project Management (KnowPM) variable describes the level of knowledge on project management in organization. 3-points' scale (from "low" to "high" with a middle point: "medium") was taken to rate it.

In order to measure organizational *Experience in Project Implementation (ExPIY)* a variable describing organizational experience measured in years of project implementation was built. It is a three-value variable: 1 – corresponding to up to 5 years of experience in project implementation, 2 – from 6 to 15 years of experience and 3 – 16 years of experience or more.

Project Management Training (PMT) and *IT Support for Project Management (ITSup)* are the dichotomous variables with values of 1 – yes or 0 – no (informing whether the organization conducts project management training or not and whether the IT support for project management processes is used).

Green Project Management Practices (GPM Practices) is a variable designed to evaluate the frequency of application of the Green Project Management practices. Items constituting the variable and the scale, on which they were assessed, were taken from the literature (Juchniewicz, 2019) and adapted to nonprofit organisations (NPOs). The GPM Practices variable is built using a 3-point scale (never, usually, always) as a mean of three auxiliary variables: *People, Planet* and *Prosperity*.

4. DESCRIPTION OF THE RESEARCH RESULTS

4.1. Descriptive statistics and reliability analysis of scales

As a first step of a research process, the descriptive statistics and analysis of the internal consistency of response for tested variables were conducted. The calculations were made using the PS Imago Pro ver. 7.0. For all tested variables the Cronbach's α was acceptable (over 0.7) or high (over 0.8), which indicates a high internal reliability of the scales and measurements. As a next step of analysis the normality of variables distribution was tested. Due to the size of the sample Shapiro-Wilk test was used. The test turned out to be statistically insignificant for variables GPM Frequency ($W(41) = 0.976$, $p=0.522$), Planet ($W(41) = 0.949$, $p=0.063$) and Prosperity ($W(41) = 0.950$, $p=0.071$), which means that the distribution of the studied variables does not differ from the normal distribution, however for variable People the test results turned out to be statistically significant ($W(41) = 0.908$, $p=0.003$). For all tested variables the standard error of kurtosis and skewness fits in the range $<-2,2>$ that means that this variable distribution is close to normal, however for People variable we can observe a left-skewed, leptokurtic distribution. For the other examined variables, there are no grounds to reject the assumption of normality, which means that we can assume that the variables distributions are normal. The results of this analysis are presented in Table 2.

Table 2. Defined variables along with the results of the reliability analysis of scales

No.	Variable	No. of scales	Alfa-Cronbach	% var	M	SD	skewness	SE skewness	kurtosis	SE kurtosis
1	GPMpract.	3	0.726	66.754	2.331	0.409	-0.038	0.354	-0.600	0.695
1a	People	16	0.906	85.958	2.541	0.329	-1.027	0.354	1.132	0.965
1b	Planet	3	0.847	78.114	2.217	0.506	-0.018	0.361	-0.668	0.709
1c	Prosperity	5	0.914	75.148	2.167	0.594	-0.223	0.365	-0.736	0.717

Source: own research.

4.2. Project management practices and the frequency of application of GPM practices in NPOs

As a next step, in order to verify the hypotheses H1(a-c) – H5(a-c) the correlation analysis between variables was performed. Since in all cases the independent variable is nominal or ordinal and the dependent variable is quantitative, in case of its normal distribution, t-Student test or one-way ANOVA were used. However due to unequal number of responses in all tested groups U Mann-Whitney test or Kruskal-Wallis test for the independent trials were also counted and reported in all cases. Additionally, to assess the effect size, the Eta squared measure was counted. The results of this analysis are presented in Table 3.

Table 3. Correlation analysis results – U Mann-Whitney test, H Kruskal-Wallis test, eta squared (η^2)

NON-LINEAR CORRELATION									
variable	People		Planet		Prosperity		GPM Practices		
	N	45	N	43	N	42	N	45	
<i>Knowledge in Project Management (KnowPM) (H1)</i>	η^2	0.200	η^2	0.036	η^2	0.102	η^2	0.105	
	F(2,42)=5.253; p=0.009		F(2,43)=0.739; p=0.484		F(2,39)=2.219; p=0.122		F(2,42)=2.458; p=0.098		
	H(2,45)=5.078; p=0.079		H(2,43)=1.282; p=0.527		H(2,42)=3.923; p=0.141		H(2,45)=3.837; p=0.147		
<i>Experience in Project Implementation in years (ExpPIY) (H2)</i>	η^2	0.070	η^2	0.067	η^2	0.036	η^2	0.062	
	F(2,42)=1.571; p=0.220		F(2,40)=1.435; p=0.250		F(2,39)=0.728; p=0.490		F(2,42)=1.377; p=0.264		
	H(2,45)=2.616; p=0.270		H(2,43)=2.822; p=0.244		H(2,42)=1.210; p=0.546		H(2,45)=1.977; p=0.372		
<i>Project Management Training (PMT) (H3)</i>	η^2	0.107	η^2	0.235	η^2	0.135	η^2	0.195	
	F(1,43)=5.154; p=0.042		F(1,41)=12.597; p<0.001		F(1,40)=5.185; p=0.028		F(1,43)=10.407; p=0.002		
	U=242.0; Z=2.27 p=0.022		U=256.0; Z=3.09 p=0.001		U=206.5; Z=2.27 p=0.022		U=265.0; Z=2.92 p=0.002		
<i>IT Support of Project Management (ITPMS) (H4)</i>	η^2	0.115	η^2	0.073	η^2	0.083	η^2	0.082	
	F(1,43)=5.577; p=0.023		F(1,41)=3.223; p=0.080		F(1,40)=3.597; p=0.065		F(1,43)=3.820; p=0.057		
	U=320; Z=1.784 p=0.074		U=285.5; Z=1.756 p=0.079		U=278.5; Z=1.836 p=0.066		U=326.0; Z=1.923 p=0.054		

Source: own research.

The first examined variable described the level of knowledge in the field of project management in the organization declared by the study participants. The obtained results showed that there is not a statistically significant correlation between this variable (*KnowPM*) and *GPM Practices* and all of its components as well. Non-parametric tests were the basis for this assessment due to the failure of meeting the assumption of tested variable distribution normality. Thus according to that hypotheses H1(a-c) should be rejected. However, the relationship between *Knowledge in Project Management (KnowPM)* and *People* variable should be the subject of further observation. The suspicion that there may be a positive correlation between the variables is supported not only by the parametric (statistically significant) test result, but also by rho-Spearman correlation analysis ($r_s=0.326$; $p=0.029$). It would mean that higher knowledge on project management is correlated with higher maturity of solutions in *People* area, while lower knowledge would translate into a lower level of maturity in discussed area. Also eta squared measure suggests the existence of an strong effect between the studied variables ($\eta^2 = 0.2$). Moreover, coming back to the GPM practices variable, post hoc analysis with the Scheffe test showed that in organizations where the level of knowledge in project management is low, the frequency of using sustainable solutions in terms of the *People* variable is statistically significantly lower ($M=2.22$, $SD=0.488$) than in organizations where employees have an average ($M=2.55$, $SD=0.269$) or high ($M=2.67$, $SD=0.236$) level of knowledge confirmed by experience or education in project management (see also Fig. 2). Although a similar trend is visible in the case of the remaining tested dependent variables, the differences between the average ranks did not prove to be statistically significant.

The results of Kruskal-Wallis non-parametric test brings to the conclusion that the relationship between *Experience in Project Implementation* and *GPM Practices* and all its components is statistically insignificant, thus hypotheses H2(a-c) must be rejected.

The obtained result shows that the relationship between *Project Management Training (PMT)* and *GPM Practices* is statistically important ($U(45)=265$, $p=0.002$) and strong ($\eta^2 = 0.195$). It was confirmed also by t-Student test. This means that the existence of a project management training program in the organization is significantly related to the *GPM Practices* and hypotheses H3 can be accepted. Due to the fact that the U Mann-Whitney test does not provide an answer in which group the values of the dependent variable are higher, the average rank in each group, the median and averages in groups were calculated. For all tested variables they are presented in Table 4. Average ranks in groups for all tested variables are presented also in Fig. 1. Organizations, which possess a project management training program, the frequency of GPM practices turned out to be significantly higher ($M=2.68$; $SD=0.28$) than in organizations, which do not use this type of training ($M=2.24$; $SD=0.39$). This statement is also true for all components of GPM practices (see Tab. 4), and the difference is clearly visible especially in the lowest rated area (*Planet*). The size effect in this case is the strongest ($\eta^2 = 0.235$). It means that all partial hypotheses H3(a-c) can be accepted.

The analysis of average ranks in groups (Table 4, Fig. 1) shows that organizations that support the project management process with IT tools apply GPM practices more frequently, however the obtained results showed that there is not a statistically significant correlation between this variable and *GPM Practices* (and its components). Hence the H4(a-c) hypotheses must be rejected too.

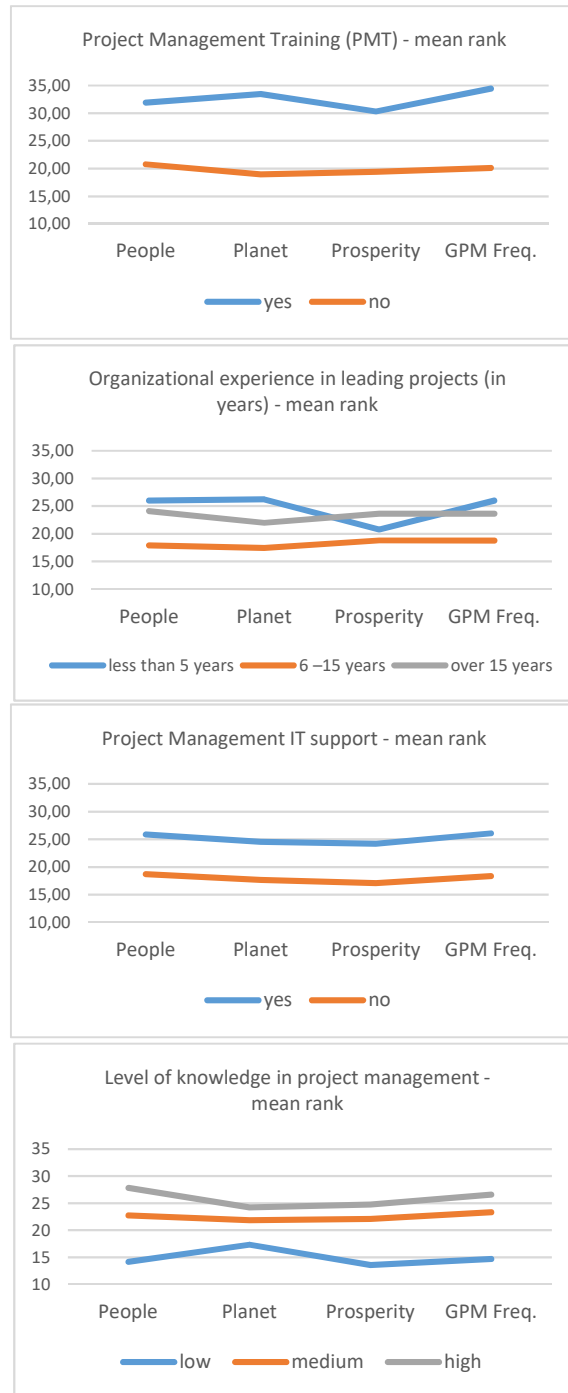


Figure 2. Mean ranks in groups for tested variables

Source: own research.

Table 4. Comparison of averages and average ranks in groups

Variables		People	Planet	Prosperity	GPM Practices	
PMT	yes	Mrank	31.89	33.44	30.31	34.44
		Media	2.800	3.000	2.542	2.652
		N	9	9	8	9
		Mean	2.754	2.688	2.577	2.688
		SD	0.197	0.406	0.407	0.279
	no	Mrank	20.78	18.97	19.43	20.14
		Media	2.527	2.042	2.000	2.212
		N	36	34	34	36
		Mean	2.487	2.092	2.070	2.242
		SD	0.336	0.457	0.594	0.389

Source: own research.

5. DISCUSSION

The study aimed to consider factors favouring GPM in NPOs operating in Poland. Following the TBL model, emphasis was given to GPM practices in the areas of People, Planet, and Prosperity. Four factors were defined: project management training, organisational experience in project implementation, project management knowledge and IT support for project management. These were related to the variable GPM practices, used to assess the frequency of applying GPM practices.

The statistical analysis of the obtained data confirmed a positive relationship between the implementation/existence of a project management training program and the frequency with which sustainable project management practices (GPM practices) are applied in NPOs – both generally and in specific areas: People, Planet, and Prosperity. This is also the only one of all the factors studied that turned out to be statistically significant. NPOs rely on the knowledge, skills, and individual potential of the people running the projects. This determines their ability to adapt to changing realities and generate new solutions. The development of the nonprofit organisations depends on both external and internal determinants, grounded in human capital (Fudalinski, 2010). Nowadays, more and more NPOs do not solely rely on the work of volunteers but employ professional staff. In Poland, in the year 2021, almost two out of three organisations (65%) paid their employees for the work performed (Charycka et al., 2023). This may translate into increased professionalism in project management and the introduction of new concepts in this area. It seems that to increase the use of GPM practices in projects implemented by NPOs, there is a need to develop and implement training programs based on knowledge of the social processes, practices, and patterns found in these organisations (Brookes et al., 2006) in combination with more mature project knowledge management (Mikovic et al., 2019). There are many different courses, training offers and postgraduate studies available on the market, however, there is still a huge gap between the NPOs needs and the market offer. Developing a better understanding of the project context, especially in conditions of increasing diffusion of the concept of sustainable development, is a key need today (Ramazani, Jergeas 2015) and the trainings in project management may be a great opportunity of transferring not only explicit, but also tacit knowledge and experiences from more experienced project managers to NPOs.

The analyses conducted indicated no relationship between organisational experience in project implementation and GPM practices. Admittedly, it can be assumed that project experience can be measured not only by the number of years of project implementation but also by the total number of completed projects. However, an additionally constructed binary variable categorizing surveyed organisations into those implementing single projects and those involved in continuous, simultaneous implementation of multiple projects did not show a statistically significant relationship with the frequency of applying GPM solutions. These results should be the subject of further research. Projects are organisational activities that provide opportunities for continuous learning, involving specific knowledge management processes that facilitate the accumulation of knowledge generated by experience. They also expose contractors to new opportunities and trends. According to research (Montes-Guerra et al., 2015), in some NPOs where volunteers and core staff have extensive experience or knowledge of project management, the project approach has been structured, and many new elements of project management are being implemented.

The level of project management knowledge in the organisation, as declared by the survey participants, was the next variable studied. The results showed no statistically significant correlation between this variable and GPM practices, which was a surprise. When comparing this observation with studies conducted among NPOs implementing EU projects for an extended period (10–20 years) on a large scale and locally (Miković et al., 2020), it can be noted that the primary factor conducive to effective project management is the process of project knowledge management combined with social capital, a domain of NPOs. Other studies (Rathi et al., 2016) note the specific needs of NPOs in terms of project management knowledge. The organisations in question face challenges in gaining knowledge on the subject because they often rely on models used in for-profit organisations operating with different values, missions, goals, and contexts than non-profits.

The surveyed NPOs make little use of the capabilities of IT solutions in the area of project management, and this is not related to GPM practices. Such a situation seems related to the low level of informatisation of Polish NPOs (The Capacity of NGOs in Poland, Report, 2022). Financial constraints play a role here. According to researchers, IT can significantly support the improvement of the environmental performance of organisations (Hack, Berg, 2014). Given IT's functional ability to improve, change, and reinvent business processes, IT and information systems can provide organisations with the ability to change and improve business processes to better support sustainable practices (Silvius, 2012).

6. CONCLUSIONS

GPM in NPOs is a novel and relatively unexplored topic. This article contributes to the ongoing research on GPM and sustainable management in organisations, shedding light on a rarely addressed topic. The authors hope that it will enhance the understanding of research needs in the field of GPM. The presented results also aim to highlight the changes anticipated in NPOs concerning the social and environmental aspects of their activities.

The research results can serve as a reference for researchers interested in the topic of GPM in NPOs. In terms of practical implications, the study provides NPO managers insights into developing project management practices. It is recommended that ongoing research continues to expand knowledge in the indicated area. Given the results obtained, further exploration through qualitative research, particularly using the case study method

and interviews with project managers, is worthwhile. Expanding the respondent group to include NPOs outside Poland and conducting a comparative analysis of GPM in NPOs, companies, and public institutions could be interesting.

It is essential to note that the presented research process had its limitations. One limitation was the study sample size (n=45) despite efforts made to distribute 684 questionnaires. The conclusions drawn from this research are not universal but should be applied only to the studied population. The extensive survey questionnaire did not efficiently serve the purpose of answering the questions. Future research could consider aggregating some of the questions. Another limitation was the adoption of a 3-point response scale. The use of this scale aimed to align with the survey tool used for business entities. Investigating more interdependencies between GPM areas in NPOs might require modifying this scale. The last limitation was conducting the survey in NPOs operating in Poland, where civil society institutions are still in the development phase.

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