

Approaches to financing public benefit organisations in the area of national security in the digital environment

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Abstract— Nonprofit organisations, operating in various fields and fulfilling diverse functions, play a significant role in civil society. One of the specific types of nonprofit organisations are public benefit organisations. Therefore, the aim of the research presented in this article is to identify the revenue generation mechanisms used by public benefit organisations operating in the area of national security (i.e., public order and safety, national defense and the activity of the Armed Forces of the Republic of Poland, and rescue systems and protection of residents). As part of the research procedure, financial and substantive reports of public benefit organisations, as well as their websites, were analyzed. The research identified the sources of revenue for public benefit organisations, as well as the degree of diversification of the revenue generation mechanisms in the online environment. The article demonstrates that a greater number of the revenue generation mechanisms utilized by public benefit organisations is accompanied by an increase in revenue. Moreover, organisations that obtain more money from private sources also use a larger number of revenue generation mechanisms in the online environment.

Keywords— nonprofit, public institutions, financial resources.

I. INTRODUCTION

Information technology plays a crucial role in leveraging the advantages of nonprofits, especially in building relationships, enhancing trust, and providing personalized services. Nonprofits can use information technology to build relationships and enhance trust with their members by utilizing high channel capacity, interactivity, and personalization in information and communication technologies (Albanna et al., 2022; Mato-Santiso et al., 2021; Rahman et al., 2014; Boles, 2013; Mano, 2009; Hackler & Saxton, 2007; Te'eni & Young, 2003). Overall, information technology plays a vital role in

enabling nonprofits to build relationships, enhance trust, and provide personalized services to their members and communities, ultimately helping them thrive in the evolving network economy. For that reason, nonprofit organisations can benefit greatly from utilizing the Internet for various purposes such as advertising, fundraising, and communication. By creating a home page on the World Wide Web (WWW), NPOs can reach a global audience and quickly disseminate information about their programs and services (Wallace, 2022; Greenberg & MacAulay, 2009; Elliott et. al., 1998). Research has consistently shown the potential benefits of the Internet for nonprofit organisations. Shin & Chen (2016) and Ingenhoff & Koelling (2009) found that NPOs can use the Internet to build relationships with stakeholders, improve communication and increase charitable giving. In the digital age, online donations are becoming an increasingly popular and convenient way to support charitable activities (Bhati & McDonnell, 2020). Crowdfunding platforms, social media sites, and dedicated online payment systems enable quick and secure financial contributions to chosen initiatives (Rambe & Bangsawan, 2023; Jin et. al., 2020).

Public benefit organisations (PBOs) are distinguished entities in the Polish non-profit landscape, constituting about 10% of all nonprofit organisations. Conditions for PBO status include performing public benefit work for society, avoiding profit from business activities, and allocating all income to public benefit work. There were over 9 thousand PBO entities in 2022, eligible for privileges like receiving 1,5% of personal income tax (Central Economic Information Center, 2024).

The operational success of PBOs is increasingly dependent on the financial backing that supports their societal aims (Mikolajczak, 2019, p. 113). These organisations, require



adequate resources to fulfill their missions with the same efficacy as their for-profit counterparts. In this context, the Resource Dependency Theory (RDT) provides a critical analytical lens for understanding the rationale behind diverse revenue-generation strategies, highlighting how their effective deployment enables an organisation to procure the necessary resources for a Public Benefit Organisation's activities, including crucial financial support. Therefore, it is essential to underscore the resource dependence of PBOs and, simultaneously, the significance of the Resource Dependency Theory (Biermann & Harsch, 2017), which was instrumental in the formulation of the resource-based view established in the 1970s by Jeffrey Pfeffer and Gerald Salancik (1978). Within the ambit of RDT, the capacity to attract resources is identified as a cornerstone for organisational advancement. Succinctly put, "the key to organisational survival is the ability to acquire and maintain resources" (Pfeffer, Salancik, 1978, p. 2). PBOs that demonstrate efficiency adapt to evolving circumstances by revising their resource acquisition tactics. A notable strategy includes broadening income sources through the introduction of varied mechanisms tailored to meet the needs of specific stakeholders (donors, clients, grant providers, etc.). Emerging directly from RDT, the environmental dependency theory further elucidates the concept of organisational adaptation (organisational congruence), positing adaptation as a central theme in both organisational theory and strategic management (Sarta et al., 2021). The environment is acknowledged as the predominant influence on the behavior of the organisation collectively and its individual components. To encapsulate, it is posited that larger organisations (with bigger revenue) possess a superior capacity to innovate in revenue generation, which, in consequence, should enhance financial returns. Conversely, the perpetual evolution of the environments in which primary resource suppliers operate introduces distinct challenges and fresh prospects for PBO financing. This dynamic leads to the observation of shifting funding paradigms and the reconfiguration of dependency dynamics (Hodge & Piccolo, 2005; Froelich, 1999, p. 248). Thus, hypothesis 1 asserts as follows:

- H1: There is a relationship between the total revenue of public benefit organisations operating in the area of national security and the mechanisms for raising funds used on the Internet.

The relationship between the activities of nonprofit organisations and their sources of financing is a topic that has been explored in various research studies (e.g. Kim, 2017; Aschari-Lincoln & Jäger, 2016). The fields in which organisations operate, appear to have a significant relationship with their sources of financing. These relationships are influenced by the presence of agency problems (Wilsker & Young 2010) and the ability to generate income through various revenue sources (Fischer et al., 2011). Wilsker (2010) found that the nature of services provided by nonprofits is associated with their sources of income; specifically, organisations offering more private goods tend to rely more on earned income, while those offering more public goods tend to depend more on charitable sources. Thus, hypothesis 2 asserts as

follows:

- H2: There is a relationship between the areas of public tasks in the field of national security and the mechanisms for raising funds utilized on the Internet.

Nonprofits relying mainly on commercial revenues are more efficient in managing overhead and administrative expenses compared to those relying mainly on donations (Ecer et al., 2017). Wilsker and Young (2010) found that the nature of services provided by nonprofits is associated with their income sources; organisations offering more private goods tend to rely more on earned income, while those offering more public goods tend to rely more on charitable sources. Nonprofit organisations with a higher bureaucratic orientation, stronger domain consensus with the government, and a longer history of government funding are more likely to receive government contracts and grants (Lu, 2013). Additionally, Wilsker and Young (2011) discovered that the nature of services provided by nonprofits influences their revenue mix, with those offering more public services relying more on donations. Thus, hypothesis 3 asserts as follows:

- H3: There is a relationship between statutory revenue sources from the area of national security and the mechanisms for raising funds utilized on the Internet.

The statutory revenue sources (mentioned in hypothesis 3), in accordance with the Act on Public Benefit and Volunteer Work (Act No. 96 of 24 April 2003), and according to the substantive and financial reports, include income from gratuitous public benefit activities (free-of-charge services for beneficiaries), paid public benefit activities for beneficiaries (the beneficiary payment service covers only the costs without profit for the organisation), business revenues which consisted of revenues from business activities.

Rumelt (1991) and Zimmerman (1983) both emphasize the importance of relative measures in their studies. Rumelt's work on economic rents in business units suggests that business-specific factors are the most significant, while Zimmerman's study on firm size and tax rates highlights the role of political costs. These findings support the idea that relative sizes, such as the proportion of revenues from private sources compared to total revenues, are more crucial than absolute figures in assessing the performance and conduct of both for-profit and nonprofit organisations. Consequently, numerous academics stress the importance of applying relative metrics in nonprofit research (i.e. Prentice, 2016; Mensah et al., 2008). In this context, Prentice (2016) warns against the oversimplified use of financial metrics, while Mensah, Lam, and Werner (2008) suggest a methodology for evaluating the relative efficacy of non-profit organisations. Ecer, Magro, and Sarpaça (2017), along with Okten and Weisbrod (2000), provide empirical support for the application of relative measures, demonstrating a positive correlation between revenue composition and efficiency, and indicating that revenue from alternative sources does not necessarily detract from private donations. These studies collectively affirm that relative metrics, such as the percentage of revenues from private sources, can offer insightful perspectives on the financial well-being and performance of non-profit organisations. Therefore, hypothesis

4 is articulated as follows:

- H4: There is a relationship between the proportion of revenues from private sources in relation to total revenues and the mechanisms for fundraising used online.

II. LITERATURE REVIEW

In the context of the role of information technology in strengthening the position of nonprofit organisations, the use of the Internet as a medium enabling various forms of financial and material support becomes particularly important. Many researchers emphasize the importance of the Internet in building and enhancing relationships with supporters, volunteers, and the community (Rahmi, 2022; Nageswarakurukkal et al., 2020; Hart, 2002). Others further explore the use of the Internet for communication, fundraising, and community building, highlighting the need for nonprofits to adapt new strategies in response to digital media technology (McNutt et al., 2018; Waters, 2007; Boeder, 2002). Alam et al. (2021) and Hackler & Saxton (2007) underscore the potential of information technology in enhancing mission-related outcomes and organisational performance but also identify deficits in its strategic utilization, particularly in the areas of financial sustainability and relationship building. Among the most effective methods of obtaining funds via the Internet are online payment systems that offer fast and safe methods of making donations. Research has shown that online payment systems ensure a secure electronic payment scheme for charity donations, addressing the need for anonymity among donors (Al-Meaither, 2003). Moreover, the Internet donation payment reduces operating costs (Fen-qian, 2011), particularly through partnerships with e-commerce platforms (Pohl, 2001). E-commerce platforms are a dynamically developing tool that allows nonprofit organisations to present their projects to a wide audience (Ndubisi, 2007). These platforms have the potential to disrupt traditional fundraising models, with web-based systems offering lower transaction costs and higher effectiveness (Lee & Hsieh, 2010). Crowdfunding platforms, in particular, have emerged as a key tool for additional financing, providing a means for nonprofits to mobilize resources and promote projects globally (Bilyk, 2022). The use of these tools requires nonprofit organisations not only to understand technology but also to be able to build an online communication strategy that will resonate with the values and expectations of potential donors (Getto & Flanagan, 2022; Gonzales & Yan, 2020; Pinho & Macedo, 2006).

In the era of digitalisation, the effective use of the Internet for fundraising purposes is becoming a key element of the development strategy of every nonprofit organisation, enabling not only obtaining funds but also building lasting relationships with donors.

III. METHODOLOGY

The organisations of public benefit subjected to the study were those that fulfill specific spheres of public tasks directly

related to the field of national security as defined in the Act on Public Benefit and Volunteer Work (Act No. 96 of 24 April 2003). Among the several dozen public task spheres mentioned in the act, which Public Benefit Organisations (PBOs) should address, were: sphere No. 20 public order and security, sphere 21 - national defense and the activity of the Armed Forces of the Republic of Poland, and sphere 23 - rescue systems and protection of residents. To identify organisations operating in these three spheres, a filter installed in the database of financial and substantive reports of public benefit organisations was used. As a result, all organisations operating in the field of national security were selected. In total, there were 283 organisations, with the following distribution:

- public order and security - represented by 43 PBOs;
- national defense and the activity of Armed Forces of the Republic of Poland - represented by 17 PBOs,
- rescue systems and protection of residents - represented by 223 PBOs.

Upon selecting the organisations (research entities), a database was constructed that includes basic parameters characterizing the examined organisations. These parameters included, among others, the scope of the organisations' operations, their number of recipients, revenues broken down by specific sources (including public and private), and a series of other data. The foundation for building the database were the financial and substantive reports placed in the database of public benefit organisations, maintained by the National Freedom Institute – Centre for Civil Society Development. The database was created in Excel (its creation involved transferring data values and information from individual documents of a specific PBO available on the Internet in PDF format). Organisations are obliged to post financial reports and substantive reports of their activities for the previous year approved by the appropriate PBO authority. This obligation applies to all PBOs, regardless of whether they were entitled to receive 1.5% of the personal income tax or not. The final deadline for posting reports for the year 2022 was 17 July 2023 (since the standard deadline of 15 July 2023 fell on a Saturday, and therefore the deadline was moved to the next business day). For organisations that operate a fiscal year different from the calendar year, the deadline for posting reports for 2022 was set for 30 November 2023. For the purposes of this article, the analysis of financial reports for the year 2023 was conducted in the period from 15.11.2023 to 20.12.2023. During this period, there was not a single case of a missing financial or substantive report for the year 2022.

The next step was the analysis of the websites of the studied organisations. The addresses of websites are provided in the substantive reports of organisations. Additionally, Google search was used to ensure that no website was overlooked. Then, using the content analysis method, various value-capturing instruments in the studied organisations were diagnosed (such analyses were conducted in the period from 20.12.2023 to 25.01.2024). These were not only methods of obtaining financial income (although such mechanisms predominated in the studied organisations). Forms of support (donations) in a non-financial form were also diagnosed, with

the condition that it had to take place online (thus, a description of possible support on the website of a PBO was necessary, training materials or online courses had to be provided, and the sending of gifts did not require the donor's personal presence at the headquarters or another location designated by the PBO). Therefore, the diagnosed support instruments were accepted through the Internet (or possibly the Internet and mail or courier company). For example, the rental of banquet halls by PBOs (many fire brigades offer to rent a hall for weddings, christenings, or other social events) was not considered, as such a service does not take place online – due to its nature, it involves the physical presence of clients in the organisation's building. As a result of the website analysis of the studied public benefit organisations, a database was obtained regarding the type and frequency of value-capturing mechanisms used by these organisations.

To verify the posed research hypotheses, statistical analyses were conducted using IBM SPSS Statistics 28. Basic statistics for quantitative variables were calculated using the Kolmogorov-Smirnov test, which showed that the distribution of all studied variables significantly differs from the normal distribution. Therefore, it was necessary to conduct the analysis using non-parametric tests. These analyses were conducted using the Kruskal-Wallis tests.

IV. RESULTS

In terms of utilising websites for stakeholder engagement, the surveyed nonprofit organisations demonstrate limited activity. Among the organisations studied, the majority do not have their own website (out of 283 organisations, only 130 possessed their own website, i.e., just under 46%). It should be mentioned that the analysis did not consider the websites of city and municipal offices, where information about a specific organisation could be found. Websites of other institutions where such information was present were also not analysed. Moreover, in many cases, access to the organisations' websites was unsuccessful. Error messages such as "the site has expired and cannot be accessed - certificate expired 614 days ago", "this website is listed as having an uncertain reputation or potentially unwanted content and has been blocked", "the connection is not private", "attackers may try to steal your information from the site", "this site is unreachable", etc., were encountered. There were 21 such instances (in one case, the specified URL led to a completely different site unrelated to the organisation under study). However, the majority of organisations had their own Facebook page (254 out of 283 organisations). The mechanisms for generating revenue via the Internet that were identified are presented in Table 1.

TABLE 1. TYPES OF REVENUE GENERATION MECHANISMS IDENTIFIED IN THE STUDIED PUBLIC BENEFIT ORGANISATIONS

No.	Revenue Generation Mechanism	Mechanism Description	Number of PBOs
1	Traditional Bank Transfer	Independent online transfer, i.e., the organisation's website provides an account number for making a "traditional" internet transfer or postal transfer	88
2	Courses, Training	Conducting various online courses and training sessions (e-learning) and providing materials on different subjects (e.g., via Intranet).	32
3	PIT online	Placing a special program (e.g., PITax.pl) on the website, which allows easy and efficient tax settlement, automatically donating 1.5% to a specific organisation.	13
4	Affiliated Selling	Part of the money from purchases is transferred. This involves making purchases in a specific store and paying the price, however, a portion of the amount spent (e.g., 3%) goes to the account of a chosen organisation (Fanimani or Idea Fair Play).	6
5	Electronic Payment	Transferring money using Pay U, tpay, transfers24, dotpay, PayPal systems.	6
6	Website Linked with Facebook	Linking the website with Facebook, which has a donation option (fundraising).	4
7	Advertising Other Entities	Promotion on the organisation's website with links to other businesses (e.g., a specific mobile network, insurance, etc.).	4
8	Online Store	Operating an online store by a specific public benefit organisation (online store tab on the PBO's website).	4
9	Sub-account	Possibility to direct a donation to a specific project or recipient.	4
10	Support from Individuals	Possibility of providing help in various forms (e.g., requiring one's own time or sending specific material categories).	4
11	Support from Businesses	Support obtained through cooperation with business in various forms, e.g., payroll giving.	4
12	Other Services	Services sold using the Internet (e.g., computerised handwriting analysis).	4
13	Siepomaga	Presence on the PBO's website of a charity service run by the Siepomaga Foundation.	2
14	Subscription	Paid subscription to online magazines.	2
15	Civic Budget	Requesting support for an organisation or initiative of a specific PBO as part of the civic budget.	2
16	Paid SMS	The ability to send paid SMS messages for the benefit of public benefit organisations.	1
Total			180

Source: Own study

From the data in Table 1, it is evident that traditional bank transfers (whether paid via the Internet or through another institution) clearly dominate as the preferred method of

fundraising for public benefit organisations. Traditional bank transfers occur almost as frequently as the sum of occurrences on websites of all other revenue generation mechanisms

combined. Taking into account also electronic payments, which allow for quick and secure online payments (transferring money using systems such as Pay U, tpay, transfers24, dotpay, PayPal, which can also be considered as "online transfers"), it is visible that bank transfers in various forms, dominate over other forms

of revenue generation. This fact is reflected in the relatively high donations from individuals and legal entities – these sources constitute nearly 21% of all the private source revenues detailed in Table 2.

TABLE 2 REVENUE SOURCES OF PUBLIC BENEFIT ORGANISATIONS IN THE FIELD OF NATIONAL SECURITY

Private sources							
Personal income tax (1,5%)	Membership fees	Donations - individuals	Donations - corporations	Contributions from the public -community collections, fundraising	Inheritan ces and bequests	Revenue from assets	Business activities
12121354,59	2928004,59	6179952,46	18655592,10	630888,76	561,00	3080557,46	77318586,03
Public sources							
European funds within the meaning of public finance regulations		State budgetary funds		Budget of local governance bodies		State special-purpose funds	
2455744,87		7071657,04		17487653,47		4818872,26	

Source: own study based on annual reports on PBO activities

From private sources, only business activities constitute a larger source of revenue than donations. Given that only 4 organisations had an online store, it can be assumed that this activity took other forms. Donations also exceed income from the flagship privilege of PBOs, namely the possibility of obtaining 1.5% of the value of personal income tax. However, the classification of income from 1.5% of personal income tax is controversial – whether it should be considered a public or private source. These funds, being part of the income tax, are formally owned by the state. Yet, it is the individual taxpayer who decides which organisation to donate this portion of their tax to. Since PBOs compete for taxpayer support, competitive mechanisms are observed here, and their creativity and openness in acquiring these funds influence their market orientation – hence the decision to classify them as private sources. Another issue is the non-inclusion of revenues recorded in the substantive reports of public benefit organisations as "Other sources". This category allows for the registration of various revenues, such as educational grants or financial income. Therefore, it is not possible to unequivocally classify these funds as public or private. This led to their exclusion from the current analysis. Among all the organisations studied, this was a total amount of 37,565,123.84 PLN, thus 19.74% of the analyzed amounts from both sources (in total, the amount from public, private, and other sources among the analysed public benefit organisations was 190,314,548.47 PLN). Nearly 20% of income from other sources is not insignificant and may distort the results of the analysis. However, considering that this item includes both sources (public and private), even without knowing the exact proportions of the origin of these funds, it can be assumed that the overestimation or underestimation of certain amounts should not be so significant.

To verify Hypothesis 1 (assuming the existence of a relationship between total revenues and the mechanisms for raising funds used on the Internet), the organisations were divided into three categories depending on their total revenues (up to 100,000 PLN; between 100,000 PLN and 200,000 PLN; and above 200,000 PLN). To check whether there is a

statistically significant difference between the number of mechanisms used to raise funds and the size of the organisation measured by the total sum of revenues, Kruskal-Wallis tests were conducted for the three groups (Table 3). The test ($\chi^2(2)=37.997$, $p<0.001$) confirmed a relationship between the variables examined. As indicated by pairwise comparisons, this relationship does not exist between group 1 (up to 10,000 PLN revenue) and group 2 (up to 20,000 PLN revenue). However, between the other groups (i.e., group 1-3 and group 2-3), such a relationship does exist.

TABLE 3. PAIRWISE COMPARISON OF THE NUMBER OF MECHANISMS USED FOR FUNDRAISING DEPENDING ON THE TOTAL REVENUES OF PUBLIC BENEFIT ORGANISATIONS FROM THE AREA OF NATIONAL SECURITY

Groups *	Test Statistic	Standar d Error	Standardi sed Test Statistic	Signifi cance	Adjusted Significance**
1-2	-20,085	11,411	-1,760	0,780	0,235
1-3	-58,567	9,505	-6,162	<0,001	0,000
2-3	-38,482	12,361	-3,113	0,002	0,006

Each row tests the null hypotheses about whether the distributions of Sample 1 and Sample 2 are the same. Displayed are asymptotic significances (2-sided tests). The significance level is 0.05.

*Groups: Group 1 – up to 100,000 PLN; Group 2 – above 100,000 to 200,000 PLN; Group 3 – above 200,000 PLN

**Significance values for multiple tests adjusted by the Bonferroni method.

Source: Own study.

Thus, Hypothesis 1 can be confirmed. However, Hypothesis 2, assuming a relationship between the spheres of public tasks from the area of national security and the mechanisms used on the Internet for fundraising, cannot be confirmed. As mentioned in the methodology, according to the Polish law on public benefit activity and volunteering from the area of national security, three spheres can be distinguished: public order and security, national defense and the activity of the Armed Forces of the Republic of Poland, and rescue systems and protection of residents. The test ($\chi^2(2)=4.974$, $p=0.083$) did not confirm a relationship between the variables examined (Table 4).

TABLE 4. PAIRWISE COMPARISON OF THE NUMBER OF MECHANISMS USED FOR CAPTURING VALUE DEPENDING ON THE SPHERE OF PUBLIC TASKS OF PUBLIC BENEFIT ORGANISATIONS FROM THE AREA OF NATIONAL SECURITY (N=283)

Groups *	Test Statistic	Standard Error	Standardised Test Statistic	Significance	Adjusted Significance **
1-2	-8,678	20,080	-0,432	0,666	1,000
1-3	19,845	11,674	1,700	0,089	0,267
2-3	28,523	17,635	1,617	0,106	0,317

Each row tests the null hypotheses about whether the distributions of Sample 1 and Sample 2 are the same. Displayed are asymptotic significances (2-sided tests). The significance level is 0.05.

*Groups: Group 1 – public order and safety; Group 2 – national defense and the activity of the Armed Forces of the Republic of Poland; Group 3 – rescue systems and protection of residents.

**Significance values for multiple tests adjusted by the Bonferroni method.

Source: Own study

The conducted research, however, established a relationship between statutory revenue sources from the area of national security and the mechanisms used on the Internet for fundraising. The test ($\chi^2(2)=12.251, p=0.002$) indicates the existence of a dependency, and the pairwise comparison points to differences between group 1 (obtaining the highest revenues from gratuitous public benefit activities) and group 2 (the highest are revenues from paid public benefit activities for beneficiaries) (Table 5).

TABLE 5. PAIRWISE COMPARISON OF THE NUMBER OF MECHANISMS USED FOR CAPTURING VALUE DEPENDING ON THE REVENUE SOURCE – GRATUITOUS PUBLIC BENEFIT ACTIVITIES, PAID PUBLIC BENEFIT ACTIVITIES, BUSINESS ACTIVITIES (N=267*)

Groups **	Test Statistic	Standard Error	Standardised Test Statistic	Significance	Adjusted Significance ***
1-3	-38,866	19,740	-1,969	0,049	0,147
1-2	-40,473	13,349	-3,032	0,002	0,007
3-2	1,607	22,994	0,070	0,944	1,000

Each row tests the null hypotheses about whether the distributions of Sample 1 and Sample 2 are the same. Displayed are asymptotic significances (2-sided tests). The significance level is 0.05.

*The count is 267 because some organisations had equal revenues in two random sources (e.g., 0 PLN) and it was not possible to indicate a majority or minority relationship.

**Groups: Group 1 – the highest revenues are from gratuitous public benefit activities; Group 2 – the highest revenues are from paid public benefit activities for beneficiaries; Group 3 – the highest revenues are from business activities.

***Significance values for multiple tests adjusted by the Bonferroni method.

Source: Own study

The last hypothesis assumed a relationship between the share of revenues from private sources in relation to total and the mechanisms used on the Internet for fundraising. The test ($\chi^2(2)=11.511, p=0.003$). For this purpose, the organisations were divided into three groups: group 1 is such that revenues from private sources do not exceed 33% of total revenues, in group 2 this ratio varies between 33% and 67%, while group 3 takes values above 67%. Differences can be seen in these groups, which confirms the test ($\chi^2(2)=11.511, p=0.003$). Differences occur between groups 1-3 and 2-3 (Table 6).

TABLE 6. PAIRWISE COMPARISON OF THE NUMBER OF MECHANISMS USED FOR CAPTURING VALUE DEPENDING ON THE SHARE OF REVENUES FROM PRIVATE SOURCES TO TOTAL

Group s*	Test Statistic	Standard Error	Standardised Test Statistic	Significance	Adjusted Significance **
1-2	11,205	9,399	1,192	0,233	0,700

Groups*	Test Statistic	Standard Error	Standardised Test Statistic	Significance	Adjusted Significance**
1-3	-21,771	7,674	-2,837	0,005	0,014
2-3	-32,976	10,750	-3,068	0,002	0,006

Each row tests the null hypotheses about whether the distributions of Sample 1 and Sample 2 are the same. Displayed are asymptotic significances (2-sided tests). The significance level is 0.05.

*Groups: Group 1 – up to 33%; Group 2 – above 33% to 67%; Group 3 – above 67% to 100%

**Significance values for multiple tests adjusted by the Bonferroni method.

Source: Own study

Therefore, based on the frequency analysis and Kruskal-Wallis tests, it can be stated that organisations from the sphere of national security with a higher share of private revenues in total revenues use more fundraising instruments compared to those with a lower income. Thus, Hypothesis 4 should be accepted.

V. DISCUSSION

The studied public benefit organisations demonstrate limited activity in maintaining their own websites, which may affect their visibility and the availability of information for potential donors and stakeholders. Nevertheless, the majority of them utilise the Facebook platform, suggesting a shift in communicative and promotional activities towards social media. Nonprofits are leveraging Facebook to engage stakeholders, promote organisational news, and foster collaboration, as well as to advance their missions and programs (Lee 2021; Olinski & Szamrowski, 2021; Sillah, 2017; Livermore & Verbovaya, 2016; Waters & Lo, 2012; Waters et al., 2009). On the other hand, the dominance of traditional bank transfers as a method of fundraising by nonprofit organisations indicates a conservative approach to financing mechanisms or potential savings, hence their lack of development of systems such as PayU, Tpay, Transfers24, Dotpay, and PayPal. However, the presence of various online courses indicates a gradual adaptation of organisations to digital methods of earning.

While the data does not provide a direct correlation between the size of nonprofit organisations (measured by total revenue) and the number of online fundraising mechanisms employed, it does suggest that larger organisations may have more resources and motivation to engage with online communities, which can lead to more effective fundraising. For example, Bhati & McDonnell (2020) find that fundraising success is positively associated with a nonprofit's Facebook network size, activity, and audience engagement, as well as with organisational factors such as budget size. This implies that larger nonprofits with bigger budgets may have more resources to invest in social media, potentially leading to a broader range of online fundraising mechanisms and greater fundraising success. It should be noted that the relationship between the size of a PBO and the use of online mechanisms for earning does not occur between groups 1 and 2 (thus, the smallest ones). This may be

due to the necessity of exceeding a certain revenue size threshold for the organisations to afford professional activity on the Internet. Thus, the threshold of 100,000 PLN set by the legislator, which allows for submitting a simplified report, seems to be inadequate in dividing organisations into smaller and larger units. This discussion goes beyond the scope of this article; however, when it comes to the scale of activity on the Internet, a better threshold seems to be 200,000 PLN (the upper revenue limit of group 2).

The lack of a relationship between the three analysed spheres of public tasks and the use of Internet mechanisms suggests that regardless of the area of activity, public benefit organisations may use similar tools to raise funds online. However, all three analysed spheres represent the broadly understood security of the State – which was the methodological assumption of the research. This is not such a diversified group as exists between other distant spheres of activity, which are defined in the Act on Public Benefit and Volunteer Work. Another reason might be that the numbers in the sphere of public order and safety, especially in the sphere of national defense and the activity of the Armed Forces of the Republic of Poland, are small (with rescue systems and protection of residents dominating), causing statistical tests to be unable to detect dependencies.

The more or less pro-entrepreneurial orientation of PBOs (measured by the size of revenues from commercial sources) is also evident in the differences in the number of ways of earning used on the Internet. Although there are no studies by other authors that unequivocally indicate such a dependency, it is emphasised that the commercial approach of nonprofit organisations can influence their activity on the Internet (Sheombar, 2019; Tatarchevskiy, 2011). This is confirmed by the fact that the studied PBOs with a larger share of private revenues in total revenues use more instruments for earning online. It is not just about absolute values, but also the relative share, which is a more reliable indicator of nonprofit organisations' orientation towards entrepreneurship and innovative approaches to generating financial resources.

VI. CONCLUSIONS

The use of online revenue generation mechanisms, such as online donations, services in the form of training and courses, online stores, etc., aims to supplement the financial resources available to these organisations. The fact that the number of revenue generation mechanisms used on the Internet is related to total revenue should prompt the studied PBOs in the field of national security to pay more attention to this aspect of their activity. Differences in the number of mechanisms used for fundraising through the Internet are more apparent when considering not the absolute sizes but the relative share of revenues from commercial sources in total revenues. This metric indicates the pro-entrepreneurial orientation of these organisations and demonstrates that these organisations are more actively trying to raise funds through the Internet.

However, the study presented in this article sheds light on the practices and challenges faced by public benefit organisations

in utilising the Internet for fundraising, yet it contains certain limitations. Firstly, due to the focus on only a certain type of public benefit organisations (namely those operating in the area of national security), the numbers of organisations in each group are not large (this particularly concerns the sphere of national defense and the activity of the Armed Forces of the Republic of Poland - only 17 organisations operate in Poland in this sphere). Moreover, the dimension of an organisation was delineated solely by a singular metric, namely, the magnitude of total revenue. In contrast, for entities of different natures, such as enterprises, a broader spectrum of criteria is employed to distinguish smaller entities from their larger counterparts, for instance, the workforce size. An additional constraint is that the investigation concentrated solely on the quantity of instruments present, without examining their specific effectiveness. Simply adopting a suitable revenue-generating instrument does not ascertain the magnitude of income derived from it (for instance, the revenue produced by an online store). The effectiveness was evaluated collectively, that is, by determining the total revenue generated from both public and private sources by all the instruments in question.

VII. REFERENCES

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