

HOW THE TYPE OF PUBLIC BENEFIT WORK IN NONPROFIT ORGANIZATIONS INFLUENCES SOCIAL MEDIA PRESENCE: AN EXAMPLE FROM FACEBOOK

Piotr SZAMROWSKI

Uniwersytet Warmińsko-Mazurski w Olsztynie, Wydział Nauk Ekonomicznych; piotr.szamrowski@uwm.edu.pl,
ORCID: 0000-0003-4739-4767

Purpose: The main objective of the study was to identify those nonprofit organizations that were characterized by the highest Facebook publication frequency, the highest number of Facebook followers and the highest average public reaction to the Facebook content.

Design/methodology/approach: Content analysis was used to accomplish the research objectives.

Findings: The results of the study clearly indicated that the nonprofit organizations with the most effective use of Facebook are those operating in the areas related to ecology, animal protection and protection of natural heritage.

Research limitations/implications: There is a need for research on the basis of which it will be possible to find out whether, in fact, the high interest in organizations related to ecology, animal protection and protection of natural heritage and their Facebook profile has a psychological basis.

Practical implications: The results of the research can be an important source of information for executives of nonprofit organizations in the utilization of social media in their day-to-day operations.

Originality/value: This paper expands the knowledge of Facebook utilization in a specific group of Polish nonprofit organizations, i.e. those with the status of public benefit organizations.

Keywords: social media, Facebook, nonprofit organizations, ecology and animal protection organizations.

Category of the paper: Research paper.

1. Introduction

Social media has become an indispensable part of our lives, shaping our communication, information sharing, and social interactions. It provides organizations with an opportunity to reach and engage with their target public in ways that were once unimaginable. Nonprofits, in particular, have found social media to be a powerful tool in disseminating their message,

building brand awareness, and encouraging donations. One of the key benefits of social media for nonprofits is that it allows organizations to reach a wider public at a lower cost. Traditional advertising and marketing tools can be expensive, limiting the ability of nonprofits to maximize their outreach efforts. Social media, on the other hand, provides a platform for organizations to share their message with thousands or even millions of people with a single post. Nonprofits also leverage social media to build engagement with their public. By creating and sharing content that resonates with their audience, nonprofits create a sense of community and connect with potential donors at an emotional level. By fostering dialogues and discussions around the issues that they support, nonprofits can initiate conversations that can inspire social change. Moreover, social media provides an avenue for fundraising. Using crowdfunding platforms and accepting donations online, nonprofits can collect small donations, which can add up to substantial amounts. Social media also provides a medium for direct communication between nonprofits and donors, increasing transparency and accountability. However, social media does pose some challenges for nonprofits. The rapidly changing nature of social media and the need to constantly generate content can be time-consuming and demanding. With the diversity of social media platforms and their differing public audiences, nonprofits also face the challenge of creating content that resonates across several platforms. The need to measure the effectiveness of social media strategies can also be a challenge for nonprofits that work with limited resources. Considering the role that social media sites can potentially play in the activities of nonprofit organizations, undertaking research in this area becomes particularly relevant. This paper is an attempt to expand the knowledge of their utilization in a specific group of Polish nonprofit organizations, i.e. those with the status of public benefit organizations. This status gives these organizations the opportunity to receive 1.5% of income tax from individuals who in their annual tax return indicate to which specific public benefit organization they wish to donate their share of tax. Due to the dispersed nature of potential contributors covering basically the entire country, organizations of this type should employ all available communication channels in their activities to promote their ideas and values. Social media sites, especially Facebook, by far the most popular in Poland, seem with their features to be particularly well predisposed to do so (As of December 2022, there were 24,201,800 active Facebook users in Poland, which translates into 64.1% of the country's total population, data source <https://napoleoncat.com/stats/>).

2. Literature review

Even a quick glance at the public relations literature makes it easy to identify two dominant themes in the organizational utilization of social media, these are presence and engagement (cf. Campbell, Lambright, 2019). This paper focuses on both of them, attempting to answer the

question of whether the type of public benefit work can affect more effective utilization of a Facebook social media site. Presence is related to publication activity, which means that the public, through content, can interact with a specific organization on an ongoing basis. Engagement, on the other hand, functions as both a state and a process. Engagement as a state refers to an individual's psychological and emotional connection to an object or activity, such as a product, brand, or organization. In this sense, engagement is a subjective experience that reflects the degree to which an individual is invested in or committed to the object or activity. Engagement as a process refers to the ongoing and dynamic interactions between an individual and an object or activity. In this sense, engagement is not just a static state but a continuous process of interaction, feedback, and adaptation (Johnston, Taylor, 2018).

This research is built upon the theoretical foundation provided by Lovejoy and Saxton's (2012) hierarchy of engagement. Hierarchy of engagement is a framework that outlines the various levels of engagement that individuals can have with a brand or organization. The hierarchy is comprised of three levels, each representing a different degree of engagement. The first one is providing information, followed by building community, with requesting specific action as the highest level of engagement. It was based on research conducted in a group of major U.S. nonprofit organizations. At the lowest level, the process of "engaging" the public takes place through the dissemination of posts, which primarily perform an informative function. A number of research results conducted especially in English-speaking countries has indicated that social media content performs just such a function (cf. Guo, Saxton, 2014; Huang et al., 2016; Van Wissen, Wonneberger, 2017; Bellucci, Manetti, 2017; Hellsten et al., 2019, Tao et al., 2021). The lowest level in the hierarchy of engagement means, from the organizational point of view, primarily placing emphasis on a sufficiently high publishing frequency rate, which will be the initial stage in the process of "engaging" the recipient of the message. In addition, it provides an opportunity to create a correspondingly large base of so-called "followers," i.e. people or entities that observe a particular Facebook profile. At the second level, nonprofit organizations harness the interactivity feature of social media, and by encouraging a two-way communication, they create the foundations of a "community" gathered around its mission. In this case, the social media content is intended to encourage their members of the public to react, which, in the case of Facebook, may include liking a post, sharing it, or commenting on it. The third, and highest level in the hierarchy of engagement, involves making efforts through social media sites that will result in the recipient of the content taking specific actions in favor of the organization, such as attending events or making a donation. Overall, the Lovejoy and Saxton hierarchy of engagement provides a useful framework for understanding the different levels of engagement that individuals can have with a brand or organization. By understanding these levels, organizations can better tailor their public relations strategies to build strong, long-lasting relationships with their public audience. In this study, relying on these premises made it possible to place organizations at a specific level in the hierarchy of engagement, taking as an assessment parameter the type of public benefit work.

In the scholarly literature, the impact of the type of nonprofit organization activity on its social media utilization has been studied only to a limited extent. In general, the research focused on three dimensions of social media presence: adoption, activity and visibility. In the case of the adoption dimension, those features of the organization were scrutinized that may have been firstly relevant in the very selection process of a particular social media site for building interactions with the public, and secondly, the impact of those features on publication frequency rate in the already selected channel were also scrutinized. A wide variety of features were being selected, but were only occasionally related to the type of public benefit work. Thus, the type of features analyzed included the size of staff resources, the nature of employment (full-time vs. part-time job), the geographic location of the organization, the age of the organization's top executives, expenditures on lobbying and fundraising activities, revenues from ongoing programs, the size of the organization measured by the size of its assets, the length of time the website had been used in its activities, the reach of the website, the nature of the organization (e.g., membership, board size, organizational effectiveness); as well as dependence on donors and government authorities (cf. Nah, Saxton, 2013; Lee, 2018). The subjects of the study were primarily nonprofit organizations operating in English-speaking countries, and the main focus was on the largest ones. The scale of social media adoption in Polish nonprofit organizations depending on various organizational features was analyzed by Olinski and Szamrowski (2018). Again, these features were not related to the type of activity work. They took into account such organizational features as the level of total revenue, the revenue level from the 1% of personal income tax, the employment size, the use of volunteers and the geographic scope of activities. An examination of the sheer impact of the type of public benefit work activity on social media adoption is found in only a few studies. For example, such research was conducted by Guo and Saxton (2017). However, they focused on the organizational use of Twitter, not Facebook, and included organizations with revenue greater than \$1 million. Thus, these were primarily medium-sized and large entities. Besides, Guo and Saxton (2017) did not make comparisons across the different types of activities carried out by nonprofit organizations, and focused on just one of them, related to "Civil Rights and Advocacy." A similar situation was evident in studies conducted by Campbell and Lambright (2020), Campbell et al. (2014) and Huang et al. (2016). The former two examined the use of all social media sites in public and nonprofit human services, with the latter focused on HIV/AIDS nonprofit organizations (only the Facebook site was analyzed). Therefore, no comparisons were made between different types of public benefit work, and attention was focused on only one specific type. In addition, studies by Campbell and Lambright (2020) and Campbell et al. (2014) focused on organizations operating in a limited area of South Central New York. It is worth emphasizing, however, that in the case of these three studies, attention was also focused on smaller entities. In the case of HIV/AIDS nonprofit organizations, these were entities whose revenue exceeded only \$25,000. This is especially important because the three dimensions of social media presence: adoption, activity, and visibility have rarely been examined in the case

of such small entities. Most often, larger entities, especially those in the top 100 nonprofit organizations, have been examined (cf. Lovejoy et al., 2012; Nah, Saxton, 2013; Saxton, Waters, 2014; Maxwell, Carboni, 2016). To summarize, the scholarly literature, especially the domestic research, lacks studies that address the issue of determining the impact of the type of public benefit work on the process of "engaging" the audience through the content of the social media sites. This article aims to at least partially fill this gap.

3. Methods

Purpose of the study

The main objective of the study was to identify those nonprofit organizations that were characterized by:

- The highest Facebook publication frequency.
- The highest number of Facebook followers.
- The highest average public reaction to the Facebook content.

The research sample included a specific group of nonprofit organizations, i.e. only those that had the status of public benefit organizations, primarily due to the fact of their key importance within Polish nonprofit organizations, as well as for reasons related to their open reporting, which allowed access to research-relevant data.

Research sample selection process

The research sample selection process was a multi-stage process. The first stage identified those nonprofit organizations that were eligible to receive 1% personal income tax in 2020. The database from the National Freedom Institute's website was used for this purpose. As of December 8, 2021, it consisted of 8833 nonprofit organizations with Public Benefit Organization (PBO) status. In the case of organizations whose annual revenue did not exceed PLN 100,000, the range of data available in the database was somewhat more modest than those with revenue above that amount. Already at the outset, it was necessary to exclude 241 organizations from the analysis, as they had not included their annual financial and substantive report in the database or had begun the process of closing down their operations. Thus, further research covered 8592 organizations. The following data were extracted from the database, among others: total revenue, revenue from unpaid and paid public benefit activities, revenue from business activities, revenue received from the 1.5% personal income tax, and sources of revenue broken down into those of a private and those of a public nature.

The second stage of the research process analyzed the extent to which Polish Public Benefit Organizations utilize social media. First, it was verified whether each organization had its own website. In most cases, organizations included a link to their own website in the annual report. When absent, a Google search engine was used to find the website. Next, each organization's website was examined to see if it had a forward button to social media sites (the button was clicked, checking if it actually redirected to a specific site). It also took into account the fact that some organizations did not have their own website and instead used only social network sites. Facebook was the most popular social network site used by Polish Public Benefit Organizations. More than 60% of Polish public benefit organizations had their own Facebook profile (N = 5184). The second most frequently used site was YouTube, although by only 8% of organizations. Such a large disproportion meant that further research focused solely on the organizational use of Facebook.

In the next stage, public benefit organizations were divided into four clusters, taking the value of total annual revenue as the criterion for division. Thus, 136 organizations with revenue greater than PLN 10 million (group 1), 1047 organizations with revenue between PLN 1 million and PLN 10 million (group 2), 2073 organizations with revenue between PLN 100 thousand and PLN 1 million (group 3) and 1927 organizations with revenue less than PLN 100 thousand (group 4) were categorized. The minimum sample size for a finite population totaled 1025 entities (100 from the first cluster, 281 from the second, 324 from the third and 320 from the fourth, confidence level = 0.95, maximum error of 0.05). The selection of public benefit organizations from each stratum was conducted with the use of the Research Randomizer algorithm.

In the fourth stage of the research, a post database was compiled, consisting of all organizational content published on Facebook in the months of February 2020 and 2021. It should be noted that February 2020 is the time before the outbreak of the COVID-19 pandemic in Poland, during which the activities of Polish public benefit organizations were not yet restricted to any extent. February 2021, on the other hand, was the time of lockdown, which involved significant restrictions on their day-to-day operations. The restrictions, however, applied only to the offline environment, so their impact on the organizational activities of the Facebook profile was not considerable. Both in 2020 and 2021 posts from the same organizations were examined. The analysis included the basic features of the organization's Facebook profile, i.e. the number of followers, the publication frequency, and also the audience reaction to a single post (audience response was measured by the number of likes, shares and comments). Due to the inability to compare organizational utilization of Facebook in 2020 and 2021, 52 organizations (5.07%) were excluded from further study. The reason for this varied and was related to the organization losing its PBO status, deleting its organizational Facebook profile, setting up a new Facebook profile between 2020 and 2021, or beginning the process of winding down its business.

Analysis of the Facebook profile allowed the identification of organizations that were particularly active in terms of the content publishing frequency with simultaneously high public engagement and a significant number of Facebook followers. They represented a group of entities whose statutory activities were related to ecology, animal protection and the protection of natural heritage (Article 4, item 18 of the Act of April 24, 2003 on public benefit activity and volunteerism). In the final stage of the study, organizations within this group were submitted for further analysis. The data from a Microsoft Excel spreadsheet was transferred to Statistical Package for the Social Sciences (SPSS), where it was checked for accuracy and completeness. Then, the SPSS program was used to carry out a statistical analysis. The following statistical procedures were used: analysis based on standard parameters and the study of the dependence of selected variables (Kruskal-Wallis tests). The classic p value <0.05 was adopted as the significance level in the analyses. A total of 52 organizations were included in the research sample, 7 large entities (annual revenue greater than PLN 10 million, e.g., *Międzynarodowy Ruch Na Rzecz Zwierząt – Viva*), 11 medium ones (revenue between PLN 1 million and PLN 10 million, e.g., *Ogólnopolskie Towarzystwo Ochrony Ptaków*), 16 small ones (revenue between PLN 100 thousand and PLN 1 million, e.g., "Aurea" Golden Retriever Foundation) and 18 smallest ones (annual revenue less than PLN 100 thousand, e.g., *Ratujemy Dogi*).

4. Results

Type of public benefit work and Facebook frequency publication rate

The results indicate that the most active organizations in terms of publication frequency were not those whose primary activities were related to ecology, animal protection and the protection of natural heritage, but those whose main area of activity was intertwined with providing aid dedicated to Poles and the Polish community abroad (table 1). Despite this fact, they were not included in further in-depth analysis. This was due to the following two factors. First, the research sample included a total of only two entities in this category (the entire database of the National Liberty Institute included only 16 organizations engaged in this type of activity). Second, the category of average publication frequency equaling 168 posts in February 2020 and 261 posts in February 2021 was heavily skewed by just one organization, the Association *Wspólnota Polska*, which during the studied periods published 332 and 519 posts, respectively (these were record-breaking numbers among all organizations, which gives an average of 11.44 posts per day in February 2020 and 18.53 in February 2021).

In regard to publication frequency, organizations whose activities were related to the broadly understood ecology category clearly outdistanced organizations operating in the other public benefit spheres. In 2021, organizations operating in the area of preserving national traditions, sustaining Polish identity and developing national, civic, and cultural awareness

published on average 12.5% fewer posts (on average 33.23 posts per month, category size - 15 organizations), organizations operating in the area of supporting national and ethnic minorities and regional languages 39.8% less posts (category size - 8 organizations), organizations operating in the area of promoting and protecting human and civil rights and freedoms, work to support the development of democracy as much as 42.4% less (the category size also included 8 entities). The organizations most heavily represented in the study, i.e. from domains 1,6,7,14,15,17 in terms of publication frequency, at most reached 39% of the publication frequency of organizations from the domain of ecology and animal protection. Their publication activity most often oscillated around an average of 10 posts per month, almost four times less than the publication frequency of organizations operating in the field of ecology and animal protection (both in 2020 and 2021).

Table 1.

Facebook frequency publication rate and public engagement reaction rate corresponding to the type of public benefit work (February 2020 and 2021)

Type of public benefit work*	Total number of organizations	Average frequency publication rate (posts per month)		Average public engagement reaction rate to single post		Average number of likes -single post		Average number of shares - single post		Average number of comments - single post	
		2020	2021	2020	2021	2020	2021	2020	2021	2020	2021
18	52	35	38	388	465	263	355	97	74	27	36
1	102	11	10	58	66	43	45	12	17	3	4
2	12	6	6	13	10	10	7	2	2	1	1
3	61	11	11	65	62	42	38	20	18	3	6
4	15	28	33	136	123	92	95	30	11	14	17
5	8	14	23	31	27	20	22	5	4	6	1
6	95	10	10	182	342	121	266	51	56	10	20
7	147	9	10	36	40	27	26	7	11	1	3
10	14	8	5	49	26	40	21	8	4	2	1
11	1	3	0	20	0	16	0	4	0	0	0
12	4	0	1	0	28	0	25	0	3	0	0
13	15	9	7	17	12	13	8	4	3	1	1
14	85	16	15	21	19	17	14	4	3	1	1
15	76	8	9	27	26	23	23	3	2	1	2
16	71	8	7	53	54	35	34	15	18	2	2
17	123	14	12	38	36	33	31	2	2	2	3
19	6	4	4	13	11	8	8	1	1	4	2
20	1	0	1	0	0	0	0	0	0	0	0
22	8	22	22	286	216	242	186	28	15	15	16
23	21	7	6	25	19	18	16	7	2	1	1
24	2	7	5	144	90	87	70	55	16	2	4
26	9	26	19	133	83	115	74	11	4	8	6
27	5	12	8	12	10	9	7	2	2	1	1
28	2	168	261	17	10	13	8	3	2	1	0
31	12	5	14	18	27	13	16	4	5	1	6
32	9	8	6	66	53	57	47	7	4	2	1
33	15	13	12	23	44	18	27	3	10	2	7

*1 - social assistance, including aid offered to disadvantaged families and individuals, and ensuring equal opportunities to such families and individuals; 2 - professional and social integration and reintegration of persons threatened with social exclusion; 3 - charity work; 4 - preserving national traditions; sustaining Polish identity and developing national, civic, and cultural awareness; 5 - work to support national and ethnic minorities and regional languages; 6 - protection and promotion of health; 7 - work to support the disabled; 10 - work to support the elderly; 11 - promotion of economic growth and entrepreneurship; 12 - promotion of development of new technologies, inventions and innovation, transfer and implementation of new technologies for companies; 13 - work to support the development of local communities; 14 - science, education, coaching, and upbringing; 15 - recreation of children and youth; 16 - culture, art, protection of culture and national heritage; 17 - promoting physical culture and sports; **18 - ecology, animal protection, protection of natural heritage**; 19 - tourism and knowledge touring; 20 - public order and security; 22 - promoting and protection of human and civil rights and freedoms, work to support the development of democracy; 23 - rescue systems and protection of residents; 24 - aid to victims of calamities, natural disasters, armed conflicts and warfare – in Poland and abroad; 26 - work to support European integration, and the development of contacts and co-operation between societies; 27 - promoting and organizing volunteerism; 28 - aid extended to Poles and Polish community abroad; 31 - work to support families, promote motherhood and parenthood; promote and protect the rights of children; 32 - prevention of addictions and social pathology; 33 - work to support non-governmental organizations and entities listed in article 3, para 3 active in the areas listed in subpara 1-32.

Source: Own study.

The frequency publication rate of organizations operating in the field related to ecology, animal protection and protection of natural heritage increased by 8.8% compared to February 2020. The most significant increase was recorded for small entities (19%), with a slightly smaller increase within medium-sized entities (13%). For large entities it amounted to 7%, while in the cluster of the smallest entities, the publishing frequency activity in February 2021 was almost 21% lower compared to February 2020.

Overall, the size of the organization, measured by the level of annual revenue, only marginally affected its publication frequency rate. In February 2021, large entities published an average of 58 posts (more than two posts per day, standard deviation value – SD = 12.02), medium entities 60 posts (more than two posts per day, standard deviation value – SD = 65.12), small entities 42 posts (1.5 posts per day - less than in the case of medium and large organizations, but they were still characterized by a high publication frequency rate, standard deviation value- SD = 59.71), only the smallest entities explicitly showed less, with an average of 15 posts per month (however, compared to organizations from other public benefit work, this is still a value ranking them high in publication activity, standard deviation value – SD = 20.91). In the case of medium, small and smallest entities, the value of the standard deviation differed noticeably from the "Mean" value, taking values clearly higher than in each of these groups. This demonstrates the wide diversity in publication frequency rate within the entities in these clusters. For example, this can be seen in the group of medium-sized entities, organizations such as the *ADA Foundation*, *Krakowskie Towarzystwo Opieki nad Zwierzętami* and *Radomskie Towarzystwo Opieki nad Zwierzętami* which published 214, 119 and 82 posts in February 2021, respectively. In the case of the *ADA Foundation*, this gives an average of as many as 7.64 posts per day (the organization published a single post on average every 3 hours and 8 minutes). On the other hand, the cluster of medium-sized entities included organizations that published 6 and 9 posts in the entire month of February 2021 (*Towarzystwo Opieki Nad Zwierzętami w Polsce - Zabrze Branch* and *Tilia Association*). Their publication frequency rate

was thus noticeably lower, although it did not differ from the average values for organizations from other areas of public benefit work. A similar situation was also observed for small entities, where the publication activity of organizations such as the *Azylu Koci Świat* Foundation, surpassed even that observed for the *ADA* Foundation (228 posts in February 2021, the organization published a single post on average every 2 hours 56 minutes). A high publication frequency rate was also observed for the *Kotkowo* Foundation and the *Kocia Mama* Foundation (113 and 103 posts in February 2021, respectively). On the other hand, 4 organizations were identified whose publication activity was limited to at most 4 posts per month (1 post every 7 days). These disparities were even greater for the smallest entities, with 5 entities publishing between 26 and 59 posts in the month, 6 organizations between 4 and 8 posts, one organization 2 posts and as many as 6 organizations that did not publish any posts in February 2021. Only in the case of the largest nonprofit organizations, the value of the standard deviation (21% of the "Mean" value) proved the relatively homogeneous publication frequency rate of the organizations making up this cluster. In the month of February 2021, publication activity in this cluster ranged from 41 posts for the "WWF Poland" Foundation to 77 for the *Ogólnopolskie Towarzystwo Ochrony Zwierząt OTOZ Animals* Foundation.

Type of public benefit work and Facebook number of followers

Organizations operating in the area of ecology, animal protection and protection of natural heritage were characterized not only by a high publication frequency rate but also by a large number of followers of the Facebook profile. In this regard, these organizations ranked second among all 33 legally sanctioned spheres of public benefit work in February 2020, and third in 2021. In general, for 2020, organizations in the sphere of number 18 should rank first, as those ahead of them operating in the area were related to offering aid to victims of calamities, natural disasters, armed conflicts and warfare, in Poland and abroad (24), were very modestly represented in the research sample (only two entities, one of which, i.e., *Polska Akcja Humanitarna*, greatly skewed the average, with their number of Facebook profile followers totaling 101,274). The average number of Facebook profile followers were higher in these organizations by more than 24% compared to those in the environmental field, which may therefore be misleading. In February 2021, the exact same situation was identified, with the difference, however, that organizations from the sphere of number 18, were further overtaken by those operating in the area of promoting and protecting human and civil rights and freedoms (the Facebook number of followers were almost 5% higher, and this category includes such organizations as the *Kampania Przeciw Homofobii*, or the *Amnesty Polska* Association with more than 100 thousand Facebook followers, the *Rodzić po ludzku* Foundation with 78 thousand followers, or an organization supporting the LGBT community - *Lambda Association* - Warsaw with almost 19 thousand followers).

Both in the first and second year of the analysis, the number of followers of the Facebook profile in the group of organizations most numerous represented in the research was clearly smaller than the pro-ecological and pro-animal organizations. For instance, for organizations operating in the field of social assistance (1), the number was more than 7 times lower in both 2020 and 2021, for organizations related to supporting the disabled (7) it was 18 times lower for 2020 and as high as 19 times for 2021. Similarly large differences were observed in the case of organizations engaged in promoting physical culture and sports (more than 20 times in 2020 and 18 times in 2021). Only in the case of organizations related to the protection and promotion of health, this difference was smaller and in February 2021 it amounted to only 18.5% (the impact of such a small difference was particularly due to one organization, i.e., the *Wielka Orkiestra Świątecznej Pomocy*, with an impressive 1.5 million so-called "followers" in February 2021).

Compared to 2020, the number of Facebook followers increased in all statutorily distinguished 33 areas of public benefit work or, as in the case of organizations engaged in the promotion of developing new technologies, inventions and innovation, transfer and implementation of new technologies for companies, remained at the exact same level. The scope of this increase varied, and reached a maximum of 37% for organizations operating in sphere number 22 (promoting and protecting human and civil rights and freedoms). For organizations operating in the area of ecology, animal protection and the protection of natural heritage, it amounted to 14.5%.

Table 2.

The type of public benefit work and average number of Facebook followers (February 2020 and February 2021)

Type of public benefit work*	Total number of organizations	Average number of Facebook followers		% change in the number of Facebook followers
		2020	2021	
18	52	41082	47047	114,5%
1	102	5139	6465	125,8%
2	12	1107	1322	119,4%
3	61	9384	10969	116,9%
4	15	12402	14646	118,1%
5	8	3985	4688	117,6%
6	95	36474	39678	108,8%
7	147	2127	2602	122,3%
10	14	3007	3677	122,3%
11	1	734	849	115,7%
12	4	2206	2206	100,0%
13	15	3208	3688	115,0%
14	85	2661	3249	122,1%
15	76	1401	1737	124,0%
16	71	2566	3078	120,9%
17	123	1976	2533	128,2%
19	6	2609	2848	109,2%
20	1	431	679	157,5%
22	8	35864	49339	137,6%

Cont. table 2.

23	21	2067	2698	130,5%
24	2	51077	60115	117,7%
26	9	4125	5376	130,3%
27	5	1348	1667	123,7%
28	2	9936	11940	120,2%
31	12	2227	2922	131,2%
32	9	3577	3998	111,8%
33	15	4624	6037	130,6%

* Types of public benefit work exactly the same as in Table 1.

Source: Own study.

The size of the organization, measured by the level of annual total revenue, significantly influenced the number of Facebook followers in the category of organizations engaged in activities related to ecology and animal protection. This was confirmed by both "Mean" values and the Kruskal-Wallis test (performed for 2020 and 2021, $p < 0.001$). The average number of Facebook followers in the group of large entities in February 2021 amounted to a value of 251,959 (an increase of 5.7% compared to February 2020), in the group of medium-sized entities 60,138 (an increase of 35.3% compared to February 2020), in the group of small entities 12,928 (an increase of 27.1% compared to February 2020), and in the group of the smallest entities 5,006 (an increase of 18.5% compared to February 2020). For all four clusters, the standard deviation rates clearly deviated from the "Mean" value, assuming in the cluster of large entities a value equal to 53% of the "Mean", in the cluster of medium-sized entities 137% of this value, in the cluster of small entities 59.5%, and in the cluster of the smallest organizations 97% of this value (data from 2021, in February 2020 a similar situation was observed). Such results testify to the wide variation in the number of Facebook followers within entities of different size clusters. On the one hand, we are dealing with organizations with an extensive base of "followers", for example, the *WWF Poland* Foundation (a large organization, number of followers = 438,536), *ADA* Foundation (a medium size organization, number of followers = 223,586), *Azylu Koci Świat* Foundation (a small organization, number of followers = 28801), *Ratujemy Dogi* Foundation (a micro organization, number of followers = 16658), and, on the other hand, organizations that, despite having a Facebook profile for a long time, still have a very modest database. In the group of large entities, the *Towarzystwo Opieki nad Zwierzętami w Polsce* with a number of followers slightly over 22,000 may be pointed out (compared to other organizations in this size group, it is more than 10 times lower), in the group of medium-sized entities, the *Tilia* Association and the *Towarzystwo Opieki Nad Zwierzętami w Polsce* - Branch in Zabrze with the number of "followers" barely exceeding a thousand. Likewise in the cluster of small entities, three organizations were identified with a number of followers hovering around 1,000, and in the cluster of the smallest organizations, four were identified.

Type of public benefit work and Facebook public engagement rate

The data presented in Table 1 clearly show that the scale of the public reaction to Facebook in the case of organizations operating in the area related to ecology, animal protection and protection of natural heritage was clearly greater compared to organizations operating in other areas of public benefit work. In February 2021, a single post published by an organization of this kind was, on average, liked 354 times, shared 74 times and commented on 36 times. The total public engagement measured as the sum of these three reactions, was therefore slightly above the 464 value. Compared to February 2020, an increase of almost 20% was recorded in this regard (in terms of the number of likes an increase of 35%, in the number of comments an increase of 33%, only in the case of the number of shares a clear decrease was observed). Organizations related to protection and promotion of health ranked second in terms of the total level of feedback to Facebook content. The total level of viewer engagement of the content published by these organizations, measured as the sum of these three responses, averaged just under 342 in February 2021, and was down nearly 36% compared to organizations with a broader environmental focus. The average public reaction for the third ranked group of organizations engaged in activities related to promoting and protecting human and civil rights and freedoms (Sphere 22 of public benefit work) was over twice lower (this category included such organizations as the *Amnesty International Association*, *Kampania Przeciw Homofobii or Lambda – Warszawa Association*). The decline in public reaction to the Facebook content was even greater for the next-ranked categories of organizations. The reaction to a single post for organizations operating in the field of preserving national traditions and sustaining Polish identity and developing national, civic, and cultural awareness (sphere number 4) was almost four times lower, for organizations related to aid to victims of calamities, natural disasters, armed conflicts and warfare (in Poland and abroad (24)), and work to support European integration, and the development of contacts and co-operation between societies (26) more than five times lower (the number of organizations operating in areas 24 and 26 of public benefit work was low, but they were characterized by high activity on Facebook, e.g. *Polska Akcja Humanitarna* and *Bieg Piastów*). Reactions to a single post in the group of the organizations most numerous represented in the study were even smaller, for organizations operating in the area of social assistance (sphere number 1) by more than 7 times, for organizations associated with work to support the disabled (7) by more than 11 times and as much as 13 times smaller for organizations involved in promoting physical culture and sports (17).

The prevalence of public reaction to Facebook content in organizations operating in the field of ecology and animal protection over the rest was similarly substantial a year earlier, that is, for the February 2020 data. Thus, the 2021 figures are not incidental, they are specific for organizations operating in this domain. Also in 2020, the same organizations were ranked second and third. The only difference was the reverse order, as the second place was occupied by organizations related to promoting and protecting human and civil rights and freedoms (22). In 2020 the magnitude of the advantage that organizations from domain number 18 of public

benefit work gained over the second and third in the ranking was at a comparable level. The response to a single post in organizations operating in the twenty-second domain of public benefit work measured by the average number of likes, shares and comments was 35.5% lower and more than twice for organizations operating in the protection and promotion of health domain (6). Equally as large as in 2021 were the differences in reactions to content for the organizations most represented in the study, i.e. those related to social assistance (average reaction 6 times lower), activities to support the disabled (7) and promoting physical culture and sports (average reaction more than 10 times lower).

The size of the organization, measured by the level of annual total revenue, significantly influenced the average public reaction to a single post in the organizations operating in the field related to ecology and animal protection. This was confirmed by the Kruskal-Wallis tests (performed for 2020 and 2021), which are robust to extreme observations and which allow to answer the question of whether the “Mean” values in Figure 1 for the average public reaction to Facebook content actually decrease with the diminishing organization's total revenue. The test value for February 2020 was $\chi^2(3) = 167.462$, $p < 0.001$; (mean rank for cluster 628.59; mean rank for cluster 2 = 485.53; mean rank for cluster 3 = 254.76; mean rank for cluster 4 = 101.21). A pairwise comparison indicated that the posts of the largest organizations in terms of annual total revenue had a higher level of average public response compared to organizations in all other clusters ($p < 0.001$ for groups 2, 3 and 4, significance level corrected using the Bonferroni method). The pairwise comparison also indicates that the posts of the smallest entities have the lowest reaction from their public. It is lower compared not only to entities in cluster one, but also to those in clusters two and three ($p < 0.001$ in each case). Kruskal-Wallis tests also confirmed that the level of reaction to posts by entities in cluster two was higher compared to organizations in clusters 3 and 4 ($p < 0.001$ in both cases). Only seemingly different results were obtained for February 2021. At first glance, one can observe a significant increase in response to posts published by medium-sized entities (more than 86%) and a 70% decrease in the group of the largest entities. This first change was decided by only one organization, i.e., the *ADA* Foundation, whose single post elicited an average reaction of more than 2000 likes, shares and comments. Compared to the previous year, the value had doubled (in February 2020 the average reaction amounted to 1039 figures for each single post). If we add to this the exceptional publishing frequency rate (136 and 214 posts in February 2020 and 2021, respectively), this one entity alone can significantly affect the performance of this entire size cluster. Such a scenario would mean that medium and large entities from the sphere number 18 of public benefit work would clearly deviate in their favor from small and smallest entities in terms of public reaction to Facebook content, while medium entities would outperform large ones in this regard. However, in the 2021 financial report, the *ADA* Foundation minimally exceeded 10 million zlotys in total revenue (10,096,556 zlotys), marking its shift from the category of medium-sized entities to the largest ones, and ultimately shifting the public's reaction to Facebook posts to this category as

well. That would make the results of the public's average response to a single post for February 2021 exactly the same as for February of the previous year, which was also confirmed by the Kruskal-Wallis tests.

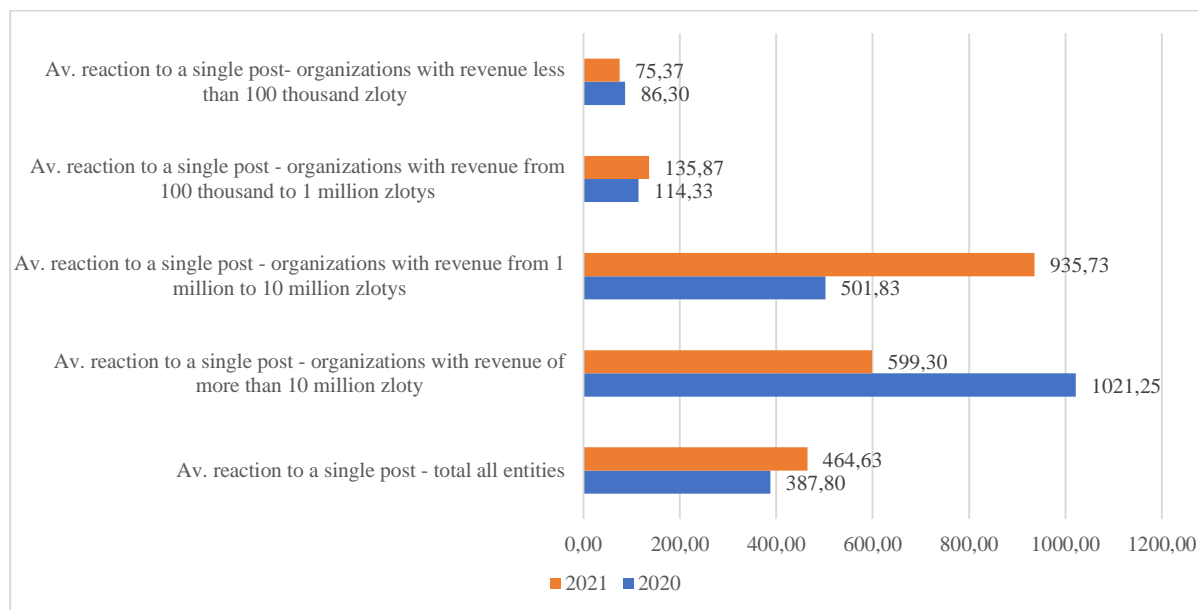


Figure 1. Average public reaction to a single post in organizations operating in the area of ecology, animal protection and protection of natural heritage according to the size of annual total revenue-February 2020 and 2021.

Source: own study.

Average public reaction to a single Facebook post varied widely within the four identified clusters. Among the largest entities, they ranged from 65 likes, shares and comments for the *Towarzystwo Opieki Nad Zwierzętami w Polsce* in February 2021, to nearly 1300 reactions for the *Ogólnopolskie Towarzystwo Ochrony Zwierząt OTOZ Animals*. Compared to the February 2020 metrics, the average reaction to a single post within the cluster of the largest entities dropped by 70% from 1021 to 599. Again, posts by the *Towarzystwo Opieki Nad Zwierzętami w Polsce* were the least responsive (an average of 198 likes, shares and comments per post). In contrast, posts by the *Międzynarodowy Ruch Na Rzecz Zwierząt – VIVA* were the most responded to ($M = 1891$). The diversity of public reaction to a single post was even greater among medium, small and especially the smallest entities. In the first one, in February 2021, two organizations were identified whose posts practically went unnoticed (on average no more than 7 reactions to a single post), another four organizations in which reactions to Facebook content were low (22 and 57, respectively), or at most moderate (124 and 128). The remaining organizations were characterized by a high level of public reaction to the Facebook posts, and in the case of one organization, i.e. the *ADA Foundation*, it was even exceptionally high ($M = 2004$). Notably, as a result of the organization's posts, the average response to a single post in February 2021, among medium-sized entities, almost doubled compared to the same month last year. In the cluster of small entities, 7 organizations were identified where a single post elicited an average reaction of less than 100 likes, shares and comments (data for February 2021). For the remaining 9 organizations in this category, it oscillated between 108 and 554 for

the Veterinary Society Foundation (two organizations were identified with an average public reaction of more than 500 for a single post). The average response to a single post, both in the first measurement year and the year after, remained at a similar level and amounted to 114 for 2020 and 135 for February 2021, respectively. Among the smallest entities, the average public reaction to a single Facebook post varied the most. Firstly, as many as 6 organizations in February 2021 did not publish any post, so automatically there could be no reaction from the public (in February 2020, there were 4 such organizations in this group, three organizations did not publish any post in both February 2020 and 2021). For 7 organizations, the reaction to Facebook posts in February 2021 did not exceed 100 likes, shares and comments (ranging on average from 7 to 67 reactions to a single post). In the other 5 organizations, the average number of reactions ranged from 105 for the posts of the *Nadzieja - Ochrona Zwierząt* Association to 171 for the *Ratujemy Dogi* Foundation. In both February 2020 and 2021, posts from exactly the same 5 organizations elicited the greatest public reaction. As in the case of small organizations, the averaged reaction to a single post, both in February 2020 and a year later, remained at a similar level and amounted to 86 for the former period and 75 for the latter, respectively.

The structure of the reaction to a single post was overwhelmingly dominated by "likes" in both the first and second years of analysis. In February 2020, they accounted for nearly 68% of all reactions. Their share in February 2021 was even higher, exceeding 76%. "Comments" accounted for the smallest share of reaction to a single post. In both February 2020 and 2021 it was barely around 7%. Moreover, a relatively large decrease in the proportion of "shares" in the structure of responses to a single post was also observed. Their share in February 2020 was 25%, and in February 2021 less than 16%. The structure of reaction to a single post in the group of large, medium and small entities was about the same. In each of them, both in 2020 and 2021, "likes" dominated. This prevalence was particularly evident in the group of medium-sized entities, where "likes" accounted for as much as 84.5% of all responses to Facebook content published in February 2021 (in February 2020 it was 76%). This result was most influenced by the *ADA* Foundation, where this reaction was particularly popular. In the cluster of the largest entities, the share of this reaction was slightly lower, at 64% in both February 2020 and 2021. For small entities, the share of this reaction totaled 59% in February 2020 and 58% in February 2021, respectively. In these three groups, "comments" accounted for the lowest share in the structure of reaction to a single post in both studied periods (their share ranged from 4.5 to 8.7%). Slightly different results were observed among the smallest nonprofit organizations. In February 2021, the proportion of "shares" in the structure of reaction to Facebook content was greater than the proportion of "likes" (50.9% to 42.8%, while in February 2020 it was 48.8% to 44.5% in favor of "likes"). The reason for this is the nature of these organizations themselves. Since these are organizations whose activities are often based on running animal shelters and finding "homes" for animals, it is common to find requests for their further "sharing" in the post itself. This was the exact situation in the case of the smallest entities. Similar to the large, medium and small organizations, the lowest share in the structure of reaction to the Facebook content were "comments" (about 6% in both analysed periods).

5. Discussion

The results of the study clearly indicated that the nonprofit organizations with the most effective use of Facebook are those operating in the areas related to ecology, animal protection and protection of natural heritage. The word "most effective" in this case means a high frequency publication rate, in conjunction with a correspondingly high public reaction to the published content (reaction in this case is measured by the number of likes, shares and comments of each single post) and an equally high number of followers of a particular organizational Facebook site. Thus, the goal of the research was fulfilled, it was possible to identify one clearly dominant type of public benefit style work, which more effectively than others, uses the potential of Facebook. The reason for this is complex and boils down to the organization triggering a sequence of the following events, gaining as many followers of the Facebook profile as possible in the initial stage, using not only the content, but also actively using other online communication channels, such as its own website, other social media sites or the offline environment in general. With the satisfactory growth in the number of profile followers, the next step for those responsible for controlling these channels is to elicit the greatest possible public reaction to the content published on the site. In doing so, we will get the classic "loop" effect, as content that provokes a large reaction attracts more people, who can potentially be an additional source of so-called "followers", which again can increase the response to the Facebook content. It seems that organizations operating in the field related to ecology, animal protection and the protection of natural heritage have an essential advantage over other organizations in this regard, an advantage whose basis is primarily psychological. It is what enables them to gain a large enough base of Facebook followers at the very outset of their social media presence (so the content itself is not crucial here). First, as Amiot and Bastian (2015) suggest, the human-animal relationship affects virtually all of us, stimulating us to create an individualized image of how we perceive the animal world and the world of nature in general. Second, also Amiot and Bastian (2015) identify six psychological rules affecting our perception of the animal world namely: evolutionary factors; developmental and learning processes; factors associated with work, religion, and culture; factors associated with individual differences; ideological beliefs; gender; factors related to the impact of animals on our health and vice versa and an intergroup relations perspective that also affects human-animal relations. Some of them have the potential to clearly influence the high interest in the Facebook profile of organizations operating in the field related to ecology, animal protection and the protection of natural heritage, hence they are particularly relevant to this research.

Evolutionary factors are primarily related to the concept of biophilia and the ensuing perception of the world. Biophilia is the concept that humans have an innate, instinctive affinity for the natural world and its living systems. The term was first coined by biologist and naturalist Wilson (1984). According to the biophilia hypothesis, humans have evolved to be deeply

connected to nature over the course of our evolutionary history. This connection has been hard-wired into our biology and psychology, and we have an innate desire to be surrounded by natural environments and living things. The result of such behavior can be a whole spectrum of feelings, from attraction to aversion, from admiration to indifference, and from calmness to anxiety. Feelings are scalable, and their extreme form often involves the need to share it, if only on Facebook.

Rules related to the effects of interactions with animals and our attitude towards them might also be an indirect factor in the interest in animal welfare. Particularly important here is the period of childhood, where our character is formed to the greatest extent. Studies conducted by Paul (2000) indicate that contact with animals during this period may predispose people to develop positive attitudes toward animals in later adult life and a greater interest in their welfare, manifested, for example, in observing actions carried out by organizations related to the field of ecology, animal protection and the protection of natural heritage.

Our attitude towards animals, whether negative, indifferent, positive or even extremely positive, can be influenced by factors such as religion, culture and related values, individual differences, ideological beliefs and gender. The latter three, in particular, can indirectly explain such a high attention to public benefit organizations connected with ecology and animal protection and their Facebook profile. In the case of individual traits, this will primarily be the ability to be empathetic towards animals, the appearance of which is often determined by at least having a pet. Strongly developed empathy is, as numerous studies have shown, a factor that enables people to feel the suffering of animals more strongly (cf. Ellingsen et al., 2010; Erlager, Tsytsarev, 2012) and the resulting feelings, to actively oppose the acts of violence against them (the organization's Facebook posts often used acts of violence against animals to provoke a fierce public reaction). Ideological beliefs, on the other hand, can clearly draw a line of conflict, in which on the one side we have people with strongly right-wing beliefs adhering to principles in which humans are seen as different from animals, standing higher in the hierarchy than them, and on the other side we have people with more left-wing beliefs who treat the world of humans and the world of animals equally (Motyl et al., 2010). Such a well-defined distinction line is particularly welcome on social media sites, often provoking public to violent reactions to the Facebook content, especially when it comes to post comments. Also, gender significantly determines perceptions of animals and nature in general, influencing involvement in the field of pro-environmental activism. This is because women are much more likely than men to boycott events that expose animals to suffering, e.g., boycotting circuses, experimenting on animals, giving up eating meat, or joining animal protection organizations to a much greater extent (Galvin, Herzog, 1998). From the point of view of a social media entity, the latter feature is particularly desirable, as it makes it possible to gain an active user of this communication channel.

The way in which humans interact with animals can also result from their membership in diverse social groups. This draws further important dividing lines within the human-animal relationship that can be used in management of social media sites. First, they may be related to so-called speciesism (Singer, 2009). Singer argues that the traditional view of human beings as the only beings with moral value is a form of speciesism that is morally unjustifiable. He contends that there is no inherent moral difference between humans and animals that justifies the differential treatment of these beings. Rather, the capacity to experience pleasure and pain is what matters morally, and animals are capable of experiencing these sensations just as humans are. Singer further argues that the exploitation of animals for human purposes, such as for food, clothing, experimentation, and entertainment, is morally indefensible. He maintains that such practices result in immense suffering for animals and are therefore inexcusable. Second, the division along the lines of "environmentalists" versus "non-environmentalists" resulting from the Realistic Conflict Theory (RCT). Realistic Conflict Theory (RCT) is a social psychological theory that explains the way in which intergroup conflict arises from competition over limited resources, including money, power, and territory. The theory posits that intergroup hostility is often driven by the perception of competition for scarce resources between different groups (Sherif, 1966). In the case of environmentalists and non-environmentalists, this will be a conflict over the protection of certain plant and animal species, at the expense of human welfare. Third, a division arising from the way in which the commonalities of humans and animals are perceived. A group that emphasizes primarily similarities will actively respond to animal suffering resulting from human mistreatment (Allen et al., 2002). The perception of the animal world through the prism of anthropomorphism, also significantly conditions greater interest in the activities of animal protection organizations. These clearly drawn boundaries give those responsible for handling social media sites considerable room for maneuver, as the potential members of the public are often extremely active with regards to the content and committed to their pro-animal and pro-environmental values. In conclusion, the success of organizations related to ecology and animal protection is not necessarily only the result of efficient Facebook content management, but may have a completely different background, often independent of the actions of those responsible for this part of the organization's activities. Undoubtedly, further research in this area is required.

6. Conclusions

This article develops the concept of Internet presence in relation to the type of public benefit work. The results have clearly indicated that some of them are clearly better predisposed to utilize social media sites in their day-to-day operations. The reasons behind this are complex, and the cause is not necessarily related to the managerial skills of those responsible for their management.

Although this study makes several contributions, it also includes a number of limitations. First, there is a need for research on the basis of which it will be possible to find out whether, in fact, the high interest in organizations related to ecology, animal protection and protection of natural heritage and their Facebook profile has a psychological basis. This is especially important because this sphere has the potential to significantly affect the way content on social media sites is handled. Facebook itself makes it easy to conduct such studies, as those who most actively follow a particular organization's profile, next to their nickname, receive a "leader among fans" badge visible to all. "Most active" in this case means a high reaction frequency measured by the number of likes, shares and comments. Reaching out to these people will make it easier to comprehend the motives behind their impressive activity on the Facebook profile of pro-environmental and pro-animal organizations. Second, the study also did not examine the content of the posts themselves, their function and the emotional charge it contained. After all, perhaps it is in the content of the posts themselves that lies an additional reason why organizations of this type are so popular on Facebook.

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