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The Use of the Twitter in Public Benefit Organisations in Poland: How Communicative Function of Tweets Translates Into Audience Reaction?

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Abstract: Scientific research into the use of social media in the activities of nonprofit organisations has focused mainly on the scale of their application and on the analysis of the static elements of the social media profile. The research presented in this article concerns the specific form of nonprofit organisation, namely public benefit organisations (PBOs). The aim of the article is, therefore, to identify the leading function of the content published on Twitter and to determine how this function translates into public engagement. During the research process, the content analysis method was used (a sample of 981 tweets was selected for this purpose). The results indicate that Twitter usage by Polish PBOs is of minor importance. Generally, with the exception of the largest organisations, the Twitter profile was primarily focused on delivering information only and, hence, was used in one-way communication.

Keywords: Twitter, public benefit organisations, relationship

JEL Codes: D64, L31, L86

1 Introduction

Public benefit organisations (PBOs) constitute a numerous grouping of nonprofit entities in Poland. In the past decade, the number of registered PBOs in Poland has increased 4-fold from 2.2 up to 9,000. In 2015, the number of active PBOs reached 8,800, which accounted for 10% of nonprofit entities eligible for this status. PBOs are marked by a number of special characteristics with the right to receive 1% of personal income tax as one of the most important. The possibility of obtaining this income tax donation is causing growing competitive pressure between the entities conducting socially useful activities. A special market has emerged under this legal act, which can be described as the '1% market' (Czetwertyński 2016). In 2016, nearly 13.2 million taxpayers requested the transfer of 1% of personal income tax to PBO. Revenues from this 1% totalled nearly 618 million PLN which is nearly a 15-fold increase compared to 2005. This amount, however, was not spread evenly between the organisations. The average receipts from 1% of personal income tax per one PBO increased in the past 6 years by nearly 1/4 (from 61,500 PLN to 76,200 PLN), whilst the median decreased (from 5,800 to 5,000 PLN). The stratification of PBOs in terms of received amounts of 1% of personal income tax is clearly increasing, and learning the causes of this phenomenon is particularly important from a research perspective. An important element of the functioning of this type of organisation is the establishment of relationships with various stakeholder groups (this applies especially to those units that try to maximise revenues from the so-called 1%). Social media services, including Facebook and Twitter, can be one of the most useful communication channels in this aspect. The research focused on the organisational use of Twitter. It is the largest microblogging site. Since 2010, the number of Twitter users has increased more than 10 times from 30 million users (number of monthly active users) to 336 million in the first quarter of 2018 (https://www.statista.com/statistics/282087/number-of-monthly-active-twitter-users/).

The conducted research in most cases concerned the use of social media services in American nonprofit organisations (e.g. Guidry, Saxton and Messner 2015). There are very few studies covering the countries of Europe (e.g. Uzunoglu and Kip 2014), and domestic scientific literature in this area is modest (e.g. Oliński and Szamrowski 2018). There are almost no studies on the use of social media services by nonprofit organisations and the role they play in building and maintaining relationships with users. In addition, the research focused primarily on large entities with few studies concerning smaller entities. This article is designed to partially fill this gap. Its purpose is to identify the leading function of the content published on Twitter and how it translates into public engagement. Using the typology originally developed by Lovejoy and Saxton (2012), modified for the needs of this research, the following research questions were formulated:

- What is the function of the content published on Twitter?
- Does the size of the organisation influence the primary microblogging functions?
- Does the function performed by a tweet affect audience engagement?

2 Literature review

The right to receive 1% income tax from individual persons means that an important element in the current functioning of PBOs is constant communication with stakeholders of the organisation. Ultimately, this may translate into sufficient funds to achieve statutory goals. This dependence on stakeholders is clearly emphasised in the literature of the subject (especially for nonprofit organisations), emphasising the fact that the organisation's stakeholder is a potential financial donor, a volunteer or just a person supporting ideas associated with a specific organisation (Waters 2008, 2009; Ki and Hon, 2007, 2008). In this context, building and shaping positive relationships is a key condition for the success of the nonprofit organisation and its special form – the PBO.

The diversity of new media instruments has considerably improved the opportunity for nonprofit organisations to communicate with donors as well as volunteers, regulators, the media and the general public (e.g. Huang, Lin and Saxton2016). Through strategically aimed content, organisations can mobilise stakeholders, foster increased accountability, foster public trust and finally build and maintain significant relationships (Saxton and Guo 2011). Online nonprofit-stakeholder relations have successfully become more and more ubiquitous, polymorphic and vital to organisational success.

First, research related to managing relationships within the online environment is focused on analysing organisational websites (Web 1.0). Content analysis is used primarily for this purpose, and the adopted, normative approach assumes that relations should be

based on dialogue as the most ethical form of communication (Madichie and Hinson 2014; Hinson, Van Zyl and Agbleze 2014; Ingenhoff and Koelling 2009; Kenix 2007; Kang and Norton 2004; Naudé, Froneman and Atwood 2004).

The results of these studies have indicated that nonprofit organisations only sporadically use websites as strategic, interactive stakeholder engagement tools. This may be due to many reasons, such as the lack of qualified staff, who are experts in creating interactive websites. The arrival of social networking sites such as the very popular Facebook and Twitter have eliminated this excuse. Therefore, public relations practitioners should consider this communication channel as an important tool in reaching a large number of stakeholders. Both platforms are free of charge, and interactivity is their basic feature. Organisations of every size can create a social media profile and build a network of friends or just followers with whom they are in almost real-time contact. The social media platforms have unlocked great opportunities for interpersonal and organisational communication. The authors of this paper have focused their attention on the latter form, that is, the organisational use of social media services. These seem to be a particularly useful tool in building relations with the public, especially with regards to PBO.

Organisational-level research involving the use of social media services in the activities of nonprofit organisations is focused primarily on the organisational use of Facebook. In the context of this type of media, Twitter has been rarely researched. Research into the use of social media in the activities of nonprofit organisations has focused mainly on the scale of their application and analysis of the static elements of the profiles (Oliński and Szamrowski 2018; Messner et al. 2013; Nahand Saxton 2013; Lovejoy, Waters and Saxton 2012; Young 2012; Bortree and Seltzer 2009). There are a few studies describing the character, type and functions of published content and their impact on the level of engagement and responsiveness (Tripathi and Verma 2018; Dhanesh 2017; Belluci and Manetti 2017; Van Wissen and Wonneberger 2017; Huang, Lin and Saxton 2016; Guo and Saxton 2014; Saxton and Waters 2014; Lovejoy and Saxton 2012). The results indicate that in the case of both Facebook and Twitter, nonprofit organisations use them primarily as an information service, and only occasionally use their fully interactive nature.

The earliest research on the functions of the published content was conducted by Lovejoy and Saxton on a sample of the 100 largest non-educational US nonprofit organisations in terms of revenue. On the basis of the analysis of 2,437 tweets, the authors identified 3 basic functions that can be performed by a single tweet, that is, information, community building and call-to-action tweets. Research indicates that only every fourth analysed tweet clearly encourages dialogue (e.g. through a question formulated in the message). Communication based on dialogue is, therefore, not treated by nonprofit organisations as a priority.

Lovejoy and Saxton indicate that the three basic functions of tweets represent a symbolic 'ladder' in which information tweets play a key role. They build a base of entities observing the profile of the organisation. Tweets also fulfil the function of community building around the goals pursued by the organisation – it is a higher level of the ladder, because it requires a certain form of engagement on the part of the observer. At the very top of the ladder are tweets that encourage the reader to take a specific action. These are known as 'call-to-action tweets' (e.g. a request to transfer money to an organisation or an incentive to work as a volunteer).

Further studies have yielded a more profound image of not only how practitioners build messages but also how the public has responded to them. For example, Saxton and Waters (2014) found that community-oriented messages attracted more likes and comments than informational messages, whilst informational messages generated more shares, on an average, than the other two categories. In studies conducted in 2016, using a sample of organisations operating in the sphere of health protection – mainly related to Human Immunodeficiency Virus (HIV) prophylaxis and Acquired Immune Deficiency Syndrome (AIDS) treatment (e.g. Huang, Lin and Saxton 2016), the results also indicated that some specific types of messages brought on better audience engagement than others.

Studies conducted by Tripathi and Verma (2018) were one of the few that concerned nonprofit organisations other than American. They focused on nonprofit organisations operating in India and explored major determinants of nongovernment organisations engagement and relationship building on social media sites including Twitter. The results suggest that stakeholders engage with organisations mainly for personal and organisational reasons. Emotions, trust and information needs emerge as the primary personal drivers for engagement, whereas organisational accountability, performance, brand image and transparency emerge as organisational drivers. Behavioural intention mediates the relationship between the drivers of engagement and

supporter contributions. The authors also suggests that as the number of supporters on social media platforms is rapidly increasing, nonprofit organisations should identify the importance of the supporter experience whilst designing their relation building strategies.

3 Research methodology

3.1 Sample

The research covered PBPs. PBOs may become an entity that carries out public benefit activities in the 33 spheres (according to article 4 of the Act of 24 April, 2003 on Public Benefit and Volunteer Activities – Journal of Laws of 2014, item 1118),continuously for at least 2 years and obtained confirmation of this fact in the National Court Register.

According to the aforementioned act, each PBO must publish financial statements and a factual report on its activities by July 15 of the year following for which the reports are submitted. It is published on the website in the Financial and Substantive Reports System for PBO. On the basis of these reports, there is a database (found on the website: http://www.pozytek.gov.pl/Wykaz,Organizacji, Powszechny,Publiczny,3666.html) that covers all Polish PBOs with a population of 8018 entities in 2016. From the research point of view, the obtained data allow dividing the organisation into four sets because of their size measured by the level of annual revenue. For 317 entities, it was not possible to obtain data (58 organisations started the liquidation process, 19 organisations have not yet registered in the system, 238 organisations have not published the current report and, in the case of 2 organisations, it was impossible to get access to the report). The analysis of the substantive and financial reports lasted 3 months and was completed at the end of 2016.

The next stage of the research process focused on establishing the scale of Twitter use in PBOs activities. Verification of the use of PBO Twitter activities was made through the start-up websites of these organisations, as well as through the google.pl search engine (221 were identified in this way) and through the Facebook general information tab. The reason behind that was caused by the fact that some PBOs did not provide information on the start page concerning the use of specific social media channels, or they only had Facebook, without using that website at all. The 67% of organisations had their own website (N = 5371), whilst only one organisation did not have its own website and used Twitter in their activities. Selected PBOs were divided into four groups depending on their total annual revenue:

- Group I – more than 10 million PLN (17 organisations),
- Group II – 1 to less than 10 million PLN (82 organisations),
- Group III – from 100,000 to less than 1 million PLN (95 organisations),
- Group IV –below 100,000 PLN (27 organisations).

The size of the minimum sample for the finite population (at a confidence level of 0.95 and a maximum error of 0.05) in such layers was 185 entities (16 from the first group, 68 from the second, 76 from the third and 25 from the fourth). In the case of the first group (the largest entities), the research covered the entire population (one organisation more than minimum sample), so a total of 186 entities were examined. The PBO selection from the remaining layers was made using the Research Randomiser algorithm (Urbaniak and Plous 2013). It is a tool designed for generating sets of random numbers.

3.2 Data

In order to carry out the relevant analyses, it was necessary to complete the tweets database. In order to eliminate the problem of randomness (for each organisation, there may be events that could cause unusually high activity for the organisation on Twitter for a short time) a sufficiently long period was used for the analysis. In the range from 15 July to 12 October 2017 (i.e. 90 days), each day of the week was randomly selected twice (i.e. two Mondays, two Tuesdays, etc.). If the selected testing days were immediately following one another, they were eliminated from the sample. The applied procedure allowed the selection of the following 14 days: 15, 21, 23, 25, 27 and 30 July; 14, 21 and 30 August; 13, 15, 19 and 30 September; and 12 October. The Twitter from each of 186 organisations was checked on the selected days, and each published tweet became part of the database (the number of analysed tweets did not exceed 1,000, so it was downloaded to the database manually).

The general guidelines for the coding scheme were first developed by Lovejoy and Saxton (2012) and subsequently modified by the authors. The research iden-

Tab. 1. Description of primary and secondary tweet function with examples from the research sample.

Tweet primary and secondary function	Examples
1. Information	
1.1 *Public education* – Tweets that focus on informing and educating the public, related directly or indirectly to the organisation's mission	@jestemnapTAK: Ecology is not a leftist whim or imported fashion from the West. "Ecology is an old Polish tradition. They created it ...
1.2 *Marketing* – Tweets that inform about the actions taken by the organisation as part of its statutory objectives	@PAH_org: Lack of food or low-quality food most affect the health of the youngest. PAH provides food parcels □□□#Syria #food
1.3 *Organisation news/Event info or update* – Plain and simple information regarding details of an event, such as time, date, place or direct links to an event or any organisation announcement	@lottobydgostia: American media inform: World Rowing Championships will take place according to plan
1.4 *Intermediary* – Tweets that are only an intermediary function, redirecting the audience to other online communication channels	@lottobydgostia: http://fb.me/wF5b9ul8
2. Community building	
2.1 *Giving recognition and thanks* – Tweets that acknowledge and thank donors and other supporters of the organisation	@domwlodzi: Today, Mr. Wojtek will need our thumbs! We squeeze them tight! Let him push him STRONG BACK! Asia and Jula ... http://fb.me/6hw12iQzW
2.2 *Acknowledgement of current and local events* – Tweets of this nature express appreciation for events relevant to the organisation, whilst indicating that the organisation is a good neighbour and part of the community	@CCC_Polkowice:-@EuroLeagueWomen, welcome to #Polkowice!☺ Photo coverage of the match against @PiestanskeCajky you will find ...
2.3 *Responses to public reply messages* – Tweets that are generally available answers to Tweets published by other Twitter users	@UserID We will be☺
2.4 *Response solicitation* – These tweets encourages the public to respond with their feedback or opinions	@ Fundacja Viva: A Just Judgment? In Poland, would you also like such penalties for animal perpetrators?
3. Call to action	
3.1 *Promote an event* – Tweets that directly encourage participation in an event	@FNP_org_pl: CEE Acceleration Summit. The region's largest event about corporate acceleration. Register! https://pwc.to/2xsFHou
3.2 *Donation appeal* – Tweets that encourages donations in cash and other material form	@PAH_org: We provide water, food and sanitation to civilians in #Mosulu. We ask for help! Deposit at http://www.pah.org.pl/wspieraj target "Mosul"
3.3 *Call for volunteers or employees* – Tweets that encourages the public to work for the organisation both in the form of volunteering and professional work	@CaritasPolska: CaritasPolska volunteers are preparing promotion for helping this year. Join volunteering! www .....
3.4 *Lobbying and advocacy* – Tweets that encourage followers to perform a lobbying- or advocacy-related activity	@BatoryFundacja: Let's protest together! We join the appeal of non-governmental organizations to defend the independence of the courts. #supremecourt #KRS
3.5 *Selling a product* – Tweets that encourages you to buy products	@KaliskiKKS: Attractive prices of passes! – KKSKalisz.pl http://fb.me/8lOOjuXkM
3.6 *Learn how to help* – Tweets that, on one hand, teach how to help and, on the other hand, encourage people to act for the organisation. Tweets within this category comprise indirect requests for support in many different ways	@Fundacja_Viva: The same way, but how different ... DO NOT HEAL! DO NOT CROSS! Sign the petition: http://www.petycje.pl/9465http://fb.me/3ZYA5EnwE
3.7 *Viewing action* – The tweets containing verbs such as 'read', or 'watch' that ask the public to read something, see photos or watch a video	@SOD_OPP: Be sure to watch this movie about KCR. Emphasizes:)#directoroflife#kitchenredbike#invisiblespice#good

tified three primary functions performed by tweets: informative, community building and call to action. Informational tweets included those that promulgate information about the organisation, its activities, organisational announcements, facts, event information, updates or anything of potential interest to their audience. An organisation predominantly publishing tweets with an informational function is primarily focused on one-way communication (without the intention of feedback from the audience). Conversely, community-building tweets are destined to foster relationship and network building by promoting interactivity and dialogue. Tweets of this nature are supposed to provoke a public response. The call-to-action tweets have the objective of getting followers to 'do something' for the organisation. Furthermore, within the primary function of the tweet, a secondary function was extracted, and these are presented in Tab. 1.

The analysis was performed using a total of 981 tweets. These were the contents originally published in the analysed period by the surveyed organisations (without retweets). In addition, 198 retweets were identified, which were not original content published by organisations and were disseminated from other sources. In order to make the codebook appropriate for the study, the authors independently coded the first 100 tweets defining its primary and secondary functions (in cases where a tweet seemed to fulfil dual purposes). Coding discrepancies were talked over and resolved. Krippendorff's alpha coefficient for information category of the tweet reached 0.95, for community building category 0.90 and for call-to-action category 0.92. The results were considered sufficiently reliable, and therefore, the remaining 881 tweets were divided and coded independently by the authors. The data were exported from the original Microsoft Excel spreadsheet into the Statistical Package for the Social Sciences (SPSS), version 24, and checked for input errors as well as missing data. Data analysis was conducted using univariate descriptive statistics associated with frequency distributions, including percentages and means, and statistical tests including the Kruskal–Wallis test. The dependent variables in the research were the number of likes, comments and retweets, which can measure public engagement. Liking suggests the tweet is appreciated by the public; commenting is a way of responding to a tweet and building dialogue with the public; finally, retweeting enables users to actually diffuse the messages to their networks, which would then boost the exposure of the shared content amongst a broader public.

The results of the research were described as follows: first, for the entire research sample (N = 981), the primary and secondary function performed by tweets was identified. Then, within the three main functions, it was analysed whether the size of the organisation affects the differences in the distribution of functions performed by tweets. Finally, it was determined how the character (function) of the published content translates into public engagement measured by means of the average number of likes, retweets and comments.

4 The results

4.1 Research question 1

The results indicate that the vast majority of published content was informative (57.2%). The share of the other two primary functions was clearly smaller and in both categories fluctuated around 20%. Detailed data broken down by primary and secondary functions are presented in Tab. 2, taking into account the size of the organisation.

As part of the tweet's informational function, four subcategories were identified, from which public education, organisational news/event info or updates were clearly distanced from the remaining tweets. In total, 428 tweets of this type were identified, which constituted 76.3% of those of an informative nature. The surveyed organisations paid a lot of attention to content with the main task of public education. In turn, the category related to organisational news, event info or updates were identified to a slightly greater degree. This is a typical example of one-way communication, and the organisation publishing this type of content should not expect a large public response. Within the tweet's informational function, an additional subcategory has been identified; a tweet acting only as an intermediary. The content of such a tweet was limited to providing a link that redirected the public, for example, to the Facebook profile of the organisation. About 39 such tweets were identified in the category of informational tweets, and they accounted for 7% of all those making up this category. The remaining 17% of tweets, whose primary function was to inform the public, were tweets of a marketing nature in which emphasis is clearly placed on what the organisation does.

Tab. 2. Descriptive Statistics for Organisational Primary and Secondary Tweet Function, taking into account the size of the organisation.

Lp.	Functions	All tweets	The size of the organisation (revenue in PLN)			
		%	More than 10 million PLN	1 million to less than 10 million PLN	From 100,000 to less than 1 million PLN	Below 100,000 PLN
			%	%	%	%
1	**Information**	**57.2**	**48.9**	**58.5**	**64.0**	**42.5**
1.1	Public education	20.6	14.1	20.0	29.3	4.1
1.2	Marketing	9.6	19.6	6.4	9.0	5.5
1.3	Organisational news/event info or update	23.0	13.6	29.2	18.0	31.5
1.4	Intermediary	4.0	1.6	2.8	7.7	1.4
2	**Community building**	**20.9**	**10.3**	**21.5**	**21.7**	**41.1**
2.1	Giving recognition and thanks	12.1	4.9	13.7	10.3	28.8
2.2	Acknowledgement of current and local events	4.4	0.5	4.7	5.7	6.8
2.3	Responses to public reply messages	0.2	0.0	0.5	0.0	0.0
2.4	Response solicitation	4.2	4.9	2.6	5.7	5.5
3	**Call to action**	**21.9**	**40.8**	**20.0**	**14.3**	**16.4**
3.1	Promote an event	6.6	4.9	7.1	6.0	11.0
3.2	Donation appeal	4.4	15.2	1.2	3.0	1.4
3.3	Call for volunteers or employees	0.4	1.6	0.2	0.0	0.0
3.4	Lobbying and advocacy	6.3	16.3	6.4	1.3	1.4
3.5	Selling a product	0.8	0.5	0.9	0.7	1.4
3.6	Learn how to help	0.2	1.1	0.0	0.0	0.0
3.7	Viewing action	3.2	1.1	4.2	3.3	1.4

As part of the tweets whose primary function was associated with community building, four subcategories were also created. The first two (giving recognition, thanking and acknowledging current and local events) make up the tweets whose primary objective was to say something that strengthens ties to the online community without involving an expectation of interactive conversation. In turn, responses to public reply messages and response solicitation subcategories cover those tweets that should be treated as the beginning of conversations. More than 58% of tweets whose primary function was community building belonged to the subcategory related to giving recognition and thanks. The other three subcategories were clearly identified less frequently. Of particular concern is the fact that tweets belonging to the subcategory of responses to public reply messages were almost unnoticeable (only two such tweets have been identified).

The third category of tweets, known as a call to action, consisted of seven subcategories. The core of this function are tweets that target followers to 'do something' for the organisation – anything from donating money, buying branded mugs or tickets, promoting events, engaging in lobbying and advocacy and so on.

Less than 22% of tweets were identified, whose primary function was related to doing something for the organisation. More than 59% of tweets whose primary function was a call to action belonged to the subcategory related to promoting an event or lobbying and advocacy. Only one in five tweets in this category encouraged donations to organisations (4% of 981 analysed tweets), and 14.4% of tweets asked the public to read something, see photos or watch a video. The share of other subcategories was marginal and was assessed negatively, especially in the case of calling for volunteers or employees.

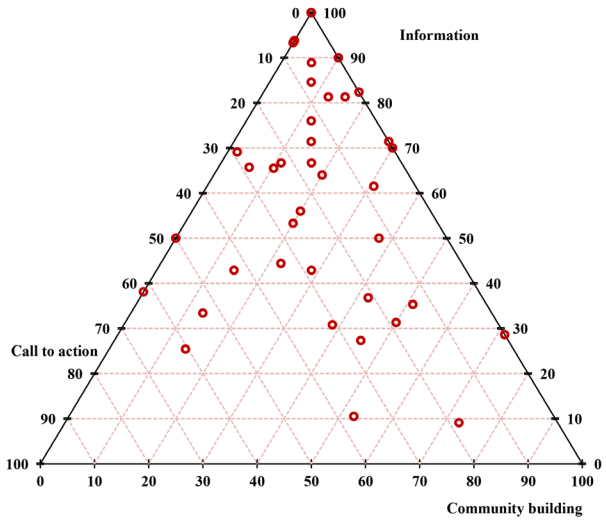
4.2 Research question 2

The size of the organisation has a significant impact on the percentage of distribution of tweets within the three primary functions. In the largest organisations with an annual income of more than 10 million PLN, the share of tweets belonging to the third category encouraging 'doing something for the organisation' was larger (almost 41%, clearly more compared to all analysed tweets, without taking into account the size of the organisation). The share of tweets explicitly focused on one-way communication (function one) with these organisations was much smaller. As the amount of income in the surveyed organisations decreased, the share of call-to-action tweets also clearly decreased. In the case of the last two categories of organisation, with an income below 1 million PLN, the level of tweets stabilised at around 15%. Within the subcategories of this primary function, the largest differences were observed in the case of appealing for donations. The largest organisations clearly published their tweets more often, which encouraged the public to make donations, both financial and otherwise. Similar differences were observed for tweets from the lobbying and advocacy subcategories. In the case of tweets focused on dialogue and encouraging conversations, quite different results were obtained. Only 1 in 10 tweets from the largest organisations sample was associated with community building. In the sample from organisations with income from 100,000 to 10 million PLN, it was every fifth, and in the sample from the smallest organisations as much as 41.1% of tweets were those focused on dialogue and interactivity. However, it should be clearly emphasised that amongst the smallest organisations, only 73 tweets were identified in the analysed 14-day period (a very low publication frequency) and as many as 70% of tweets belonged to a single organisation – the Sport Club whose Twitter profile has clearly focused on community building. That tweet subcategory was particularly popular and has been associated with giving recognition and thanks. If this one organisation was eliminated from the database, the share of tweets belonging to this category would fall to 14.4%, and in the case of tweets with an informational primary function, they would increase to 64%. In the category of informational tweets, smaller organisations more often published messages related to the subcategory of organisational news and announcements, that is, those with a clearly one-sided character, which does not take into account the interactive capabilities of the site.

In this research, the function performed by tweets was considered not only at the level of all 981 tweets, or by the size of the organisation, but also from the point of view of a single organisation. This allowed the possibility to answer the question of whether there is a PBO in Poland whose Twitter profile is, for instance, truly 'dialogic'. For this purpose, from the sample of 186 organisations surveyed, only those whose publication frequency on Twitter allowed them to qualify as active organisations were included. The publication of Tweets at least once every 2 days (minimum 7 tweets in the analysed period of 14 days) was considered to be a measure of activity. Other organisations were excluded because of a low level of publishing activity that could distort the results. Of the 186 organisations, only 43 that met this condition (23.1%) were identified: 5 large organisations with annual income above 10 million PLN (29.4% out of 17 organisations of this size), 22 organisations with income from 1 to 10 million PLN (26.8%), 15 organisations with income from 100,000 to 1 million PLN (15.8%) and 1 organisation with income below 100,000 PLN (5.9%). The ternary graph (Fig. 1) displays how firmly an organisation relies on each of the primary functions. About 43 points are marked on the graph, and each of them represents a single organisation. The percentage of share of the three main functions of published tweets is shown.

The point on the top of the triangle indicates that the published tweets are 100% informative. The point in the lower right corner indicates that 100% of tweets in the organisation perform a community building function, and the point in the bottom left corner indicates that 100% of tweets fulfil the function of a call to action. An extreme value was obtained for six organisations that published 100% of tweets of an informational nature (14.0%). In addition, in the case of 29 organisations (67.4%), the share of informational tweets exceeded 50%. Only eight organisations (18.6%) were identified with

Fig. 1. Ternary Graph: Proportion of organisational tweets in each primary function.



Source: based on Lovejoy and Saxton (2012).

a Twitter profile made of community builders (the share of tweets in this category was the largest, and in the case of five organisations, their share exceeded 50%). It is worth emphasising that as many as five of these eight organisations are organisations related to the promotion and dissemination of physical fitness culture (sports clubs). Almost 21% of organisations (N = 9) in the analysed period did not publish any tweets with community building as a primary function. Similar results were obtained for tweets with a call to action as their primary function. For slightly more than 11% of organisations (N = 5), this call-to-action function was the most important (for four organisations, this share was greater than 50%). About 11 organisations (25.6%) that did not publish tweets from this category at all were identified. It is worth mentioning that only one single organisation published tweets whose percentage span for the three primary functions did not exceed 10%.

4.3 Research question 3

In order to answer the research question as a function performed by a single tweet translating into public engagement, Kruskal–Wallis tests were carried out. They were made for the three primary functions as well as for the subcategories within each of them. For tweets with information as a primary function (N = 561; 57.2% of all 981 analysed tweets), the average number of likes, retweets and comments was 5.77 likes, 2.45 retweets and 0.35 comments, respectively. For the other two primary functions, the statistics were as follows:

- For tweets with a community building function (N = 205, 20.9% of all 981 analysed tweets), the average number of likes was 3.67, the average number of retweets was 1.15 and the average number of comments was 0.22;
- For tweets with a call-to-action function (N = 215, 21.9% of all 981 analyzed tweets), the average number of likes was 6.93, the average number of retweets was 4.30 and the average number of comments was 1.95.

The Kruskal–Wallis test indicated that all three primary functions yielded an equal chance for tweets to be favoured ($\chi2(2) = 2.409$, $p = .300$) or commented on ($\chi2(2) = 4.494$, $p = .106$). For the average number of retweets, the Kruskal–Wallis test ($\chi2\ (2) = 7.627$, $p = .022$) indicated that there is a difference amongst the three functions compared (average rank for the information function = 483.75; the average rank for the community building function = 468.64; the average rank for the call-to-action function = 531.24). In addition, the tweets that make up the individual sets were compared in pairs, in order to determine statistical differences between specific collections. The results indicate that tweets with a call-to-action primary function received significantly more retweets than those with a community and information focus, although in the case of tweets with the primary information function, the comparison in pairs indicates that the difference was on the verge of statistical significance ($p = .055$, the significance level was corrected by the Bonferroni method, $p = .055$).

In addition, Kruskal–Wallis tests were conducted within the subcategories of each of the three primary functions. The basic descriptive statistics presented in Tab. 3 indicate that in the area of likes, retweets and comments, the biggest public reaction was caused by tweets related to the lobbying and advocacy subcategory and, to a lesser extent (especially in the aspect of the number of comments), marketing tweets. Practically, each of the 15 subcategories evoked minimal public response in the form of commenting on the tweet. It is also worth paying attention to the high values of standard deviation, especially in the area of lobbying and advocacy subcategories. There are the so-called super tweets; that is, those that caused different response recipients at least 50 times. In the group of 981 tweets, 2 were identified that were commented on, forwarded and liked at least

Tab. 3. Descriptive Statistics for Primary and Secondary Communicative Functions with Accompanying Public Responses (Likes, Comments and Retweets).

Lp.	Function	Favourited				Retweeted				Commented			
		M	*SD*	*Min*	*Max*	*M*	*SD*	*Min*	*Max*	*M*	*SD*	*Min*	*Max*
1	**Information**	5.77	31.6	0	498	2.45	11.7	0	164	0.35	2.6	0	53
1.1	Public education	6.33	37.6	0	498	3.19	14.0	0	164	0.51	3.8	0	53
1.2	Marketing	10.3	45.0	0	420	4.11	16.7	0	151	0.45	2.6	0	24
1.3	Organisational news/ event info or update	4.30	19.1	0	259	1.51	6.9	0	82	0.21	0.9	0	11
1.4	Intermediary	0.44	2.2	0	14	0.15	0.8	0	5	0.08	0.5	0	3
2	**Community building**	3.67	8.0	0	58	1.15	3.2	0	33	0.22	0.8	0	7
2.1	Giving recognition and thanks	3.65	7.3	0	43	1.02	2.4	0	14	0.26	1.0	0	7
2.2	Acknowledgement of current and local events	3.72	8.9	0	50	0.93	2.2	0	13	0.09	0.3	0	1
2.3	Responses to public reply messages	1.0	0.0	0	1	0.0	0.0	0	0.0	0.0	0.0	0	0.0
2.4	Response solicitation	3.83	9.4	0	58	1.83	5.3	0	33	0.27	0.7	0	3
3	**Call to action**	6.93	54.7	0	794	4.30	33.8	0	491	1.95	25.9	0	379
3.1	Promote an event	1.57	2.5	0	14	0.57	1.0	0	5	0.05	0.3	0	2
3.2	Donation appeal	1.95	2.9	0	16	1.79	3.1	0	17	0.05	0.2	0	1
3.3	Call for volunteers or employees	3.0	2.2	0	6	1.75	1.7	0	4	0.0	0.0	0	0
3.4	Lobbying and advocacy	19.5	101	0	794	12.4	62.4	0	491	6.66	48.1	0	379
3.5	Selling a product	1.37	1.7	0	4	0.25	0.5	0	1	0.0	0	0	0
3.6	Learn how to help	3.5	4.9	0	7	2.50	3.5	0	5	0.0	0	0	0
3.7	Viewing action	2.00	2.4	0	10	0.87	1.5	0	7	0.06	0.2	0	1

50 times (a record tweet belonging to the lobbying advocacy category has been commented on 379 times, passed on 491 times and liked 794 times).

The following statistical test results were obtained:

- Kruskal–Wallis test ($\chi2(3) = 3.635$, $p = .304$) indicates that all four secondary information functions yielded an equal chance for tweets to be commented on;
- A Kruskal–Wallis test was carried out for the average number of likes ($\chi2(3) = 44.034$, $p<.001$) and retweets ($\chi2(3) = 38.488$, $p<.001$) and indicated that tweets from some of the information subcategories yielded a significantly larger public response than others;
- A pairwise comparison showed that the intermediary function of tweets, on an average, generated fewer likes and retweets than the other three subcategories ($p<.000$ for each comparison, p-value calculated with Bonferroni correction) and tweets within the marketing subcategories generated a greater number of likes ($p = .005$) and retweets ($p = .004$) than organisational news/announcement and a greater number of likes than public education tweets ($p = .021$, all p-values calculated with Bonferroni correction). In addition, tweets from the public education subcategory yielded significantly bigger public responses within the number of retweets than organisational news/announcement tweets ($p<.000$);

- The Kruskal–Wallis test indicated that all three secondary community building functions[3] yielded an equal chance for tweets to be favoured ($\chi2(2) = .007$, $p = .997$), retweeted ($\chi2(2) = 4.294$, $p = .117$) or commented on ($\chi2(2) = 1.605$, $p = .448$);
- The Kruskal–Wallis test indicated that five secondary call-to-action functions[4] yielded an equal chance for tweets to be commented on ($\chi2(4) = 6.333$, $p = .176$);
- The Kruskal–Wallis test carried out for the average number of likes ($\chi2(4) = 12.252$, $p = 0.016$) and retweets ($\chi2(4) = 22.813$, $p<.001$) indicated that tweets from some of the call-to-action subcategories yielded a significantly larger public response than others;
- A pairwise comparison showed that tweets related to lobbying and advocacy generated a statistically higher number of likes than tweets for the promotion an event subcategory ($p = .006$; p-value calculated with Bonferroni correction). On the other hand, in the case of an average number of retweets, this subcategory generated a statistically higher number of retweets compared to the promotion of an event subcategory ($p<.001$) and donation appeal ($p<.001$) and was close to statistical significance for selling a product ($p = .088$) and viewing an action ($p = .058$; all four calculated with Bonferroni correction).

5 Discussion

The results of the study unveiled how Polish PBOs use Twitter and shed light as to what extent tweets were able to effectively elicit a public response in the form of liking, commenting and retweeting. The results indicate that Twitter in Polish PBOs is of minor importance. Almost half of the organisations, despite having a profile on Twitter, did not publish any content during the analysed period, and in the case of almost 30% of organisations, this frequency was not more than 6 tweets in 14 days. In total, the test sample consisted of 981 tweets, which primarily served an information function. The share of the other two main categories was similar. The size of the organisation had a significant impact on the percentage structure in the primary function area of the tweet. The largest organisations, with annual revenues of more than 10 million PLN, published tweets with a call-to-action character much more often than in the case of other smaller organisations. The share of this category of tweets was declining as the income level decreased and stabilised only in organisations with an annual income below 1 million PLN. Explanations for this phenomenon can be found in the work of Guo and Saxton (2014), who built an original 'pyramid' model of social-media-based advocacy. To quote:

> *This hierarchical model is a three-stage process: 1) reaching out to people; 2) keeping the flame alive; and 3) stepping up to action. In the diversified social media environment, an organization must always be seeking to reach out to new audiences (stage one), deepen that audience's knowledge and sustain its interest (stage two), and then motivate it to act (stage three). Though the three components represent "stages," all three can happen concurrently. It is a model of mobilization-driven relationship-building – how organizations can generate and mobilize network support through communicative relationship-building strategies* (p.17).

Compared to others, the largest Polish PBOs had a much larger number of followers. The average number of followers in this set of organisations amounted to 4,438; in the group of organisations with revenues from 1 to 10 million PLN, their average was 1,289 observers; in the organisational group with an income from 100,000 to 1 million PLN, their average was 732; and in the smallest organisational group, their average was only 329. Consequently, the largest organisations have shifted their focus to tweets having the nature of a call for action. With a few exceptions, other organisations in the Twitter environment remain at the first stage in the model of '*reaching out to people*'. There were also only a few organisations whose main purpose was in using Twitter content for community building. Only eight organisations whose share of tweets in this category was the largest were identified, of which the share in five organisations exceeded 50%. In summary, with the exception of the largest organisations the Twitter profile of PBOs was primarily focused on the information function and, hence, on one-way communication. There are very few tweets with the nature of a call to work as a volunteer, even though the vast majority of organisations in the annual activity report showed that they use the services of volunteers. With the exception of the largest organisations, the share of tweets encouraging donations to the organisation was also low. An explanation for this phenomenon may be

3 Owing to the fact that there were only two tweets qualified as responses to public reply messages, they were excluded from the test.

4 Owing to the fact that there were only two tweets qualified as a learn how to help tweets and four tweets qualified as a call for volunteers or employees, they were excluded from the test.

associated with a small number of profile observers in smaller organisations.

The statistical tests performed indicate that regardless of the primary function of a tweet, they generate the same chance of being liked or commented on. Only tweets with a primary call-to-action function received significantly more retweets than those with a community and information focus. This situation was mainly observed in tweets related to lobbying for the organisation. They concerned issues of social importance, for example, related to the protection of the independence of courts in Poland, or the protection of conceived life, and they were clearly more frequently retweeted from other subcategories.

When looking at the categories within the community building primary function of the tweet, the results were obtained, indicating that they generate the same low level of public response in all three analyzed areas: average number of likes, comments and retweets. This finding indicates that communication based on dialogue does not need to be treated as a priority in nonprofit organisations (at least in those with a small number of followers, as with Polish organisations on Twitter). All information subcategories yielded an equal likelihood for tweets to be commented on. However, the frequency of retweets and favourites did produce a significant result: informational tweets with a marketing and public education focus received significantly more retweets and favourites than others from that primary function.

6 Implications

This paper has mainly practical implications. Twitter from the organisational point of view seems to be a useful communication tool, especially in nonprofit organisations that face numerous barriers, primarily of a financial nature. Its practicality is connected above all with simplicity and relatively low costs of use, simultaneously creating new possibilities for organisations to engage their audience. However, the majority of people responsible for managing social media channels in Polish PBOs struggle with the pressure to re act in a short time and to be accurate, informative and usable with only 140 characters at one's disposal (currently 280 characters). This is indicated by the low frequency of published content by Polish PBOs. In addition, the majority of Twitter users in such kind of organisations are the so-called passive users. This is indicated by a small number of likes, retweets and especially comments on the published content. The concept of passive user uses Dhanesh and his model of engagement. Dhanesh identified three levels of engagement, that is, affective, cognitive and behavioural (2017). The research results indicate that engagement amongst Twitter users in Polish PBOs is primarily limited to the first two levels, that is, cognitive and affective ones. The three-level understanding of the concept of engagement raises serious practical implications for managers, showing them the potential directions of actions enabling more effective use of Twitter in activities related to Public Relations (PR). In the case of the organisations surveyed, the people responsible for managing this channel must make efforts to build active and sufficiently large the followers base. At present, it is so small that the chances of appearing of the so-called social media influencers (SMIs) are also small. SMIs are people on the third level of engagement of the Dhanesh pyramid (behavioural level). They are the most important way of building positive relationships between the organisation and audience, mainly by commenting on the published content and disseminating it amongst other network users. A very modest number of comments in the tweets covered by the analysis indicate that the number of SMIs on Twitter profiles of Polish PBOs is minimal. Acquiring followers can be done in various ways, the most important of which is related to the publishing of content on the profile important for the audience. In addition, organisations can use traditional communication channels for this purpose, as well as other online channels such as a website or Facebook. The fact that PBOs have a Twitter profile should be assessed negatively, whilst leaving it in a state of complete lack of publishing activity. The research results indicate that the number of such organisations was large. In this case, having Twitter profiles can bring more damage to the organisation than benefits.

Research focused on the analysis of functions performed by tweets allowed to construct a concise list of best practices for the field, enabling the adaptation of published content to the type of engagement desired by PR practitioners. First, publishing important information tweets from the point of view of the recipient can directly translate into acquiring a larger followers' base. The bigger this base is, the higher is the probability of SMI appearance, as was already mentioned above. Only a clear increase in the followers' base should prompt Polish PBOs to put more emphasis on tweets from call to action and community building categories. Within information category, PR practitioners should put more emphasis on marketing tweets instead of public education and organisational news tweets. Marketing

tweets are more likely to be retweeted and favourited by the audience. Second, if the people responsible for managing this channel want to increase the frequency of retweets and likes, they should put more emphasis on lobbying and advocacy tweets within call-to-action category and on response solicitation tweets from community building category.

7 Conclusions

The main objective of the research was to better comprehend what types of Twitter messages exert the greatest level of audience engagement for specific type of nonprofit organisations called public benefit organisations. In Poland background, to the authors knowledge, this study was the first attempt to research how nonprofits' audience react to the tweets they get. The main research effort focused on identifying the dominant function performed by a single tweet and its impact on audience reaction in the form of likes, retweets and comments. After analysing 981 tweets by 186 PBOs, it was not possible to identify the 'perfect' tweet, that is, one that triggered all types of engagement. What's more, the average number of comments as the most important form of the recipient's involvement was independent of the tweet's primary and secondary function. Only the statistical relationship between the communicative function of the tweet and the average number of likes and retweets was identified, although, in this case, only in a few subcategories. Although the average duration of the Twitter profile amongst the surveyed organisations is almost 4.5 years, it still suffers from 'childhood sickness' struggling with a small followers' base, which is clearly dominated by passive users. Twitter in Polish PBOs fulfils in fact only a complementary role compared to the much more popular Facebook.

To sum up, regardless of the size of the organisation, the interactive nature of Twitter is not fully used in Poland PBOs.

The performed research had some limitations. Future research could inquire more thoroughly with deeper message categories. Some tweets from subcategories caused problems in proper classification. For example, promotional event and organisational news overlapped with promotional event and acknowledgement of current/local events. Another issue was related to the use of a number of comments for the public responses estimation. These comments do not need to have a positive overtone or be in line with the organisational message. Therefore, it seems necessary to carry out research to determine the sentiment articulated in these public comments.

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