

Success determinants of sports projects financed with donation crowdfunding

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Published online: October 30, 2020

(Accepted for publication: October 22, 2020)

DOI:10.7752/jpes.2020.s5414

Abstract:

Crowdfunding is becoming one of the fastest growing alternative business financing options. The universality of this idea means that almost all sectors of the economy use it. Over the past few years, crowdfunding has become the main source of funding for many sports teams, amateur athletes and other sports and leisure developers. Therefore, it is important to identify factors that stimulate or limit the success of projects financed this way. Most researchers focus on one-time fundraising projects for a specific purpose. However, there is a lack of research on the success factors of donation projects related to obtaining regular payments from the funders. This study is aimed at determining the factors influencing the level of monthly support for sports channels using financing on Patronite.pl. The analysis covers all 244 projects in the Sports category run on YouTube, which were available as of May 1, 2020 on the Patronite.pl platform. It was assumed that there is a relationship between the reach of the YouTube channel and the amount of revenues earned. The tobit model was used in the study. The following variables were taken into account: the number of subscriptions, video views, the number of days since the last video was published, the channel's operation time, the number and types of banner links as well as profile and background photos on YouTube. As a result of the research, it was found that the variable corresponding to the number of years since the channel was established on YouTube has the strongest negative impact on revenues. Other variables, that are also important, are the number of subscriptions and the number of views per video. Our research has not confirmed that the number of banner links is important, but their type has an impact on the level of revenues. The banner link to the website or blog of the YouTuber turned out to be the key here.

KeyWords: Patronite.pl; key success factors; sports channels; You Tube; crowdfunding

Introduction

The dynamic development of technology has allowed organizations to gain new opportunities to raise capital in the form of social financing. Several hundred platforms have been created around the world to support various crowdfunding models, including loan, investment or donation models. Research results confirm the significant development of crowdfunding in Europe. In 2012-2017, there was an increase in financing from EUR 1,12 to EUR 10,44 trillion, with the highest trading volume recorded in Great Britain [Ziegler et al. 2019]. Crowdfunding is used by organizations belonging to various sectors: agriculture, construction, transport, information and communication, public administration, education, culture and sports. For many projects, where the access has been limited by stricter legal regulations and creditworthiness assessment procedures, it is an interesting alternative to obtain capital. Alternative, supporter-based financial instruments have become more important, in particular for risky business models such as projects or sports clubs [Huth, 2019]. Over the past few years, crowdfunding has become the primary means of training and enrollment funding for many sports teams and amateur athletes, as well as a means of funding other sports and leisure projects [Chiang et al. 2017].

Among donation models, there is a growing interest mainly in models without remuneration of participants (in 2014, the turnover amounted to EUR 16,34 million, and already in 2017 - EUR 53,14 million). In case of donation models with prizes, the increase ranged from EUR 120,33 to EUR 158,80 million in the years 2014-2017 [Zhang et al., 2015; Ziegler et al., 2019]. In the Visegrad Group, where Poland belongs, an even more dynamic development of crowdfunding can be noticed. And although this is especially due to the widespread use of the loan model [Ziegler et al., 2018; Ziegler et al., 2019], however, the overall increase in donation financing is primarily influenced by the growing popularity of this solution in Poland [Ziegler et al. 2017], in particular the development of the donation model without rewarding participants.

The reasons for paying in for crowdfunding purposes have been different for years. These include helping those in need, joining the community, having fun, recognizing or having a product before it is introduced to the market [Kaartemo, 2017]. Interestingly, the structure of people financing and seeking this type of financing has been changing. Over the years, the number of women supporting projects financed through donation crowdfunding has generally increased. It is worth noting that in the case of those using this source of

financing, the percentage of women using the donation model without rewarding falls, and in the case of the donation model with rewarding participants, the situation is opposite [Ziegler et al., 2017; Ziegler et al., 2019].

A systematic review of the literature on the influence of various factors on the results of crowdfunding was conducted by, among others, Moritz & Block (2016) and Kaartemo (2017). Their findings allow us to conclude that the analyses of social financing made by various authors to some extent identify factors stimulating and limiting its development [Moritz and Block, 2016], although these studies are based mainly on the American market [Kaartemo, 2017]. Previous studies indicate that the development of donation crowdfunding is limited by unclear legal regulations, in particular in the case of rewarding models [Ziegler et al. 2019]. In addition, the risks arising from cybersecurity breaches are indicated, and in the case of the non-reward model, a campaign fraud is a problem. Attempts to determine the determinants of the success of crowdfunding projects were made, among others, by Agrawal et al. (2010), Belleflamme et al. (2012), Burtch et al. (2013), Marom and Lawton (2012) associating them with factors such as: the idea and the type of the project, the scope of the rewards offered, the clarity of the description and the level of the budget. Although Kaartemo (2017) emphasizes that awards may have been a determinant of success but they may also have no or detrimental effect on the project's outcome. He notes that the key is not the quality of the rewards, but the number of tiers they are awarded on. Meer (2014) and Lukkarinen et al. (2016) add that the high price of the prizes reduces the likelihood of funding a project on an award-based platform and negatively affects the number of investors. However, a significant impact on the success of the project due to social capital accumulated in social media was confirmed [Mollick, 2013; Giancarlo et al., 2013]. When examining projects completed with success and failure, Ciechan-Kujawa and Goldmann (2018) showed that the success of the project depends on: the correct formulation of the goal, the level of originality, innovation and uniqueness of the proposed solutions, as well as credibility, which is the result of the involvement of recognized ambassadors and partners.

It should be noted, that most of the analyses conducted so far have focused on single-purpose fundraising projects. The literature lacks research on the success factors of donation projects related to obtaining not one-off, but regular payments from the funders. One of the few is the Wilson & Wu study (2020). In order to develop the results of the latter studies, as well as to assess the universality of the conclusions drawn from them, an attempt was made to analyze qualitative and quantitative variables for the categories of projects implemented on the selected Polish platform. Taking into account the dependence of some success factors on the type of project observed by Ciechan-Kujawa and Goldmann (2018), a homogeneous group of sports projects was selected for analysis. Sport as a dynamic industry enjoys an increasing interest in various stakeholders, and also has an impact on the economic growth of the country [Perechuda I., 2020]. The aim of the research presented in this study was to determine the factors influencing the level of monthly support for sports channels using financing on Patronite.pl.

Material & methods

The analysis covers all 244 projects in the YouTube Sports category that were available on Patronite.pl as of May 1, 2020. Patronite.pl is the Polish equivalent of the US Patreon website. In both cases, the collection of funds is based on monthly payments to the founder. Sites such as Kickstarter, PolakPotrafi, Wspieramkulture collect a large amount of money at a time. Creators encourage to pay in the money with short text and video, where they present themselves and provide information about the purpose of the money. At Patreon and Patronite creators can set specific goals while on the Polish portal this can be a subscription goal to receive monthly support or a project goal to collect a specific amount. Regner (2020) stresses, however, that the amount collected is negatively correlated with the number of goals. On both platforms, the founder offers rewards in return for monthly payments. Prizes may be pictures, videos, but also access to the group for patrons only.

Monthly support data are taken from Patronite.pl, while the rest of the data was collected from YouTube. The study includes the number of subscriptions, views, videos, and days since the last video was published¹. Besides, we have determined the number of years since the channel was created on YouTube. The availability or absence of banner links to Facebook, Instagram, Twitter, blog or website links, links to the Patronite.pl platform, links to the store or other websites were also analyzed as a potentially significant factor. The study includes profile and background photos on YouTube. It was assumed that there is a relationship between the channel size on YouTube and the revenue earned on Patronite.pl. Due to the characteristics of the data collected (quantitative and qualitative data), the survey uses a Tobit model created by the Gretl program. The model was verified by pseudo-R-squared.

In the study group, the number of subscribers ranged from 0 to 826 thousand with a median of 3145 (cf. Table 1). Grupa Filmowa Darwin had the most subscribers. "KUBA POST" was the most viewed channel (with 180.478 million views; in this case, the median was 0.486 million). Mateusz Daniec received the most views per film (1407.3 thousand), with the median in this case of over 3.5 thousand. Sebastian Szabłowski (7132) sent

¹ The time since the last uploaded video has been entered as the number of days, months or years. The number of weeks has been multiplied by 7 days, the number of months has been multiplied by 30 days, while the number of years by 365 days.

most of the films and it's worth stressing that his channel is over 6 years old. Marcin Kalisz publishes the longest time on YouTube for almost 10 years. Only one channel has not posted any cover or profile picture.

Table 1. Statistical characteristics of sports channels on YouTube

Statistics	Number of subscribers [in Thou]	Number of video views [in Mil]	Number of views per video [in Thou]	Number of videos upload	Number of days from last upload	Number of years since founded	Number of channels without photo	YouTube channel income [in PLN]
Mean	34.87	6.81	40.20	290.56	109.73	5.71	0.00	226.41
Median	3.15	0.49	3.60	107.50	7.00	5.13	0.00	0.00
Dominant	11.10	0.00	0.00	28.00	1.00	3.73	0.00	0.00
Standard deviation	103.80	20.15	162.63	686.86	247.76	3.55	0.06	1678.40
Minimum	0.00	0.00	0.00	1.00	1.00	0.05	0.00	0.00
Maksimum	826.00	180.48	1407.30	7132.00	1460.00	13.95	1.00	25608.00
Sum	8507.51	1662.19	9808.75	70896.00	26774.00	1393.27	1.00	55243.00
Number of observations	244.00	244.00	244.00	244.00	244.00	244.00	244.00	244.00

Source: own study.

Table 2 presents the data concerning the banner links. It has been reported that the most links lead to Facebook, then to Instagram, and a blog or website. It is worth pointing out that only just over 12% of the channels have a link to Patronite.pl.

Table 2: Availability and types of banner links on sports channels

Statistics	Type of link							Number of banner links
	Facebook	Twitter	Instagram	Blog or web page	Patronite.pl	Store	Other	
Mean	0.57	0.09	0.45	0.25	0.12	0.06	0.10	1.64
Median	1.00	0.00	0.00	0.00	0.00	0.00	0.00	2.00
Dominant	1.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Standard deviation	0.50	0.29	0.50	0.43	0.33	0.28	0.32	1.44
Minimum	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Maksimum	1.00	1.00	1.00	1.00	1.00	1.00	2.00	5.00
Sum	139.00	23.00	109.00	60.00	30.00	14.00	25.00	400.00
Number of observations	244.00	244.00	244.00	244.00	244.00	244.00	244.00	244.00

Source: own study.

Only 92 channels from the 244 surveyed on the Patronite.pl platform achieved revenue (Table 1). The most common revenues of the channels were up to PLN 250 a month, while the average is PLN 600.47. The difference is due to overstating the average by Grupa Filmowa Darwin which has the highest monthly income of PLN 25608. The second and third channel "KETOKOCUR" with revenues at PLN 2,632 and "Yoga Madame Ifa" with the amount of PLN 2,470 - received much lower support.

In the case of revenue per thousand subscribers, the median amount is PLN 15.52, with an average of 386.28, and per thousand views per video 21.77 and 202.33 respectively. As Wilson & Wendy (2020) pointed out, differences in values may result in low popularity of channels with a low number of subscriptions and relatively high income from close friends and family.

Table 3. Statistics of revenue channels

Statistics	The amount of the monthly income [PLN]	Amount per thousand subscriptions [PLN]	Amount per thousand video views [w PLN]
Mean	600.47	386.28	202.33
Median	100.00	15.52	21.77
Standard deviation	2700.94	1825.20	945.27
Minimum	5.00	0.08	0.18
Maksimum	25608.00	15667.00	8850.80
Sum	55243.00	35537.57	18614.00
Number of observations	92.00	92.00	92.00

Source: own study.

Results

Due to the characteristics of the sample - a large share of the non-revenue generating channels and the occurrence of the zero-one data - The study uses a Tobit model developed in the GRETLM program. In each of the models shown in Table 4, the variable was the amount of monthly support at Patronite.pl. However, the explanatory variables were: subscriptions in thousands, views in millions, views per movie in thousands, number of uploaded videos, number of days since the last uploaded video, number of years since YouTube was founded, number of banner links, and their type: Facebook links, Twitter, Instagram and a blog or website.

Based on the pseudo-R-square, it can be concluded that models 2 and 3 are poorly suited models, while models 1 and 4 to 6 are better suited to the data. Models 1 to 5 are duplicated models from the Canadian Wilson & Wu study.

Table 4. Tobit models of the amount of revenues in PLN on the Patronite.pl website

Covariates	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6
Number of subscribers [in Thou]	9.138*** (0.007)	7.924*** (0.001)	4.171*** (0.003)	5.473** (0.026)		5.784** (0.016)
Number of video views [in Mil]	4.35 (0.807)	2.837 (0.822)				
Number of views per video [in Thou]			3.359*** (0.001)	3.574** (0.021)	6.210*** (0.003)	3.559** (0.018)
Number of videos upload		-0.157 (0.408)				
Number of days from last upload	-4.062** (0.014)	-0.112 (0.771)	-0.131 (0.724)	-4.187** (0.01)	-5.046*** (0.004)	-4.330*** (0.007)
Number of years since founded	-102.456* (0.065)	-32.578 (0.236)	-30.173 (0.253)	-94.195* (0.077)	-75.018 (0.167)	-118.072** (0.025)
Number of banner links	311.124** (0.023)	-126.864 (0.478)		334.411** (0.012)		68.261 (0.651)
Banner links to Facebook		98.538 (0.777)	-164.469 (0.505)		569.408 (0.161)	
Banner links to Twittera		175.334 (0.627)	20.565 (0.949)			
Banner links to Instagrama		40.701 (0.899)	33.361 (0.888)			
Banner links to blog or web page		704.077** (0.013)	619.537*** (0.006)			1583.340*** (0.001)
Constant	-1469.98*** (0.001)	118.707 (0.573)	57.060 (0.779)	-1478.13*** (0.001)	-1220.62*** (0.006)	-1283.870*** (0.002)
Number of observations	244	244	244	244	244	244
Number of observations(Y=0)	152	152	152	152	152	152

Dependent variable: amount of monthly support on Patronite.pl; p values are given in parentheses.

*** = 99% probability; ** = 95% probability; * = 90% probability

Source: own study.

Research shows that channels with a greater number of subscriptions are more financially supported by patrons. It can also be noted a similar relationship for channels with more views per video. The number of banner links may increase the revenue from patrons, although in model 6 this variable is not statistically significant. Model 6 also shows that YouTube channels that have a banner link to a blog or website have a greater ability to generate revenue.

This is the most powerful variable affecting the dependent variable. Older channels and those that have not recently published a video have lower revenue potential. It should be added here that the number of years since YouTube was founded has a stronger impact on revenue than the time since the last uploaded film. The following variables have a negligible impact on revenues: millions of views, the number of videos uploaded and links to Facebook, Twitter, Instagram.

Dicussion

The results of our research show unequivocally that channels with a greater number of subscriptions have greater revenue generation capacity. This confirms the earlier observations of Wilson and Wu (2020) defined in relation to the Patreon.com platform. It can therefore be presumed that channel subscribers are indeed interested in the content provided by the author, and therefore are willing to pay more than non-subscribers. It is worth noting, that there are channels that achieve a high income in relation to the number of subscriptions, which may be a consequence of payments from family and close friends. An example of this phenomenon can be the "Trickbox Project" channel - Paweł who obtains monthly revenues of PLN 290 having only 669 subscribers.

Kaartemo (2017) claims that photos, posts, updates and promotional videos indicate the quality of the project, which can have a significant impact on higher fundraising results. An interesting story, more than stereotypical, attracts donors (Dey et al., 2017). Therefore, when making a film, it is crucial to know the way of thinking of potential investors and to clearly convey the vision of the project and the legitimacy of its financing (Vachelard et al., 2017). It turns out, that the number of video views alone is not as important for generating revenue as views per video. YouTuber may have a lot of views but due to a large number of videos, the number of views per video significantly decreases, which indicates low interest in the channel.

For example, the channel "InTheCagePL" has over 25.5 million views but taking into account the number of published videos (3527), it turns out that the number of views per video is low and amounts to about 7 thousand. The situation is different in the case of the channel run by Filip Kulon. This channel has 28.178 million views, however, taking into account the availability of 178 films on it, it can be assumed that each video has almost 160,000 views.

An additional factor affecting the level of revenues is the time since the last video was uploaded and the number of years on YouTube. It should be noted that the YouTube year variable is the most negatively influencing one. It turns out that the younger and more frequently uploading channels have a greater ability to generate revenue. The research leads to the conclusion that in the case of Patronite.pl, the supporter wants to benefit from the amount paid, i.e. he wants to receive specific content. It is therefore important for the funders to maintain constant contact with them. Steainberd et al. (2012) even claim that it is advisable to publish daily. Such a position is also presented by Adams (2014), claiming that such an approach will not only enable the creator to inform funding on an ongoing basis about the progress of the project but also enable quick corrections in promotion methods. It should be noted, that for some filmmakers a low amount of financial support may turn out to be insufficient motivation to create another film.

Moreover, the conducted research shows, that banner links have a positive impact on revenues. Moreover, in both studies (ours and the Canadian authors), these variables turned out to have the strongest positive impact on the revenues of YouTubers. However, differences in the presented studies regarding the importance of individual types of banner links should be noticed. In the case of the study based on Patreon.com, the link to Facebook [Wilson and Wu, 2020] turned out to be the most important, and in the case of Patronite.pl, it was a link to a blog or website. It seems that there is a much higher probability that the author of the website or blog is engaged with Internet activities more professionally.

On the other hand, it should be noted that some of the contributions for a given author may result from blogging. Therefore, it should be noted that banner links may not fully properly present the situation related to social media channels. It happens that YouTubers do not update or add banner links. An example is the channel "Budnik i Pokrzywiński o F1", where only one banner link to PayPal was given, however in the description under the film you can find: link to Patronite.pl, to the Facebook group, Spotify, Podbean, several websites (in the one they co-authored), links to Twitter by Bartosz Budnik and Bartosz Pokrzywiński. Hence, taking banner links into account does not reflect the full picture. Besides, the technological advancement that allows you to watch movies on YouTube through mobile applications means that banner links are no longer so easily accessible. It is possible to get to this information by entering the information tab on a given channel, however, the links given in the description to the film are much more often used.

Canadian research also shows that a greater number of links has a positive effect on the generated income. This is not confirmed by our research based on Patronite.pl. However, Lu (2014) and others point out that social media has a huge impact on the amounts obtained through crowdfunding. Sayedi et al. (2017) add that the online community is a key group as funders often share links on their private social networks and thus increase the reach of the campaign. Meanwhile &Schmidt (2017) points to the lack or irregularity of the promotion of crowdfunding projects by creators on their social networks. Hui et al. (2014) diagnose that the main reason for campaign failure is limited skills in using the online community. Instead, they emphasize that those creators who collected information about the project from a specific community before and during the crowdfunding campaign usually achieve greater success.

The Canadian research also took into account the number of recommended channels and the lack of a profile photo and a background photo. In our study, we did not take into account these variables due to a very small sample of people who did not have a profile photo and background photo, and the lack of a Polish counterpart.

Conclusions

As the analysis of Kaartemo (2017) shows, most of the studies published in the literature are based on data from platforms in the US, in particular the Kickstarter platform based on awards. However, the dynamic development of crowdfunding in Europe requires an analysis of the functioning of this solution in domestic conditions.

Our research confirms the observations of Wilson and Wu (2020) defined in relation to the Patreon.com platform in many respects. First of all, it can be concluded that more popular channels, i.e. with a greater number of subscriptions and views per movie, have a greater chance of achieving higher income. This may result from a potentially larger number of people who can support a given creator. The variable corresponding to the number of years since the channel was established on YouTube turned out to be the most negatively impacting on revenues. It can therefore be concluded that younger channels have a greater ability to generate income. An important parameter is also the time that has elapsed since the last uploaded video. People with the willing support projects whose creators regularly provide them with value (for example: knowledge, availability, prizes). They do not want to support a given creator when they receive nothing in return. Particular attention should be paid to banner links. In our study - unlike the Patreon.com platform - only the banner link to the website or blog of a given YouTuber turned out to be relevant. However, some of the money that a creator receives may come from his blog or website activity. It should also be emphasized that banner links do not fully reflect the links to social media provided by a given creator. It seems that a more complete picture could be obtained by analyzing the links placed under the film. These data were not included in our study due to the lack of possibility to compare the obtained results with the financing study on Patreon.com.

It is also worth adding that the study did not take into account the quality of the videos sent, the quality of the content posted on social media channels, the description of the YouTuber. There is also the possibility of extending the research to further project categories, which is a potential direction for further research.

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