

CROWDINVESTING AS A MODERN FORM OF CROWD INVOLVEMENT (PRELIMINARY RESEARCH RESULTS)

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Purpose: Presented study examines the evolution of crowdinvesting awareness among Polish university students. It compares survey results from 2020 and 2023. The aim of the research is to evaluate changes in understanding, participation, and attitudes toward various forms of crowdfunding.

Design/methodology/approach: The study consists of a comparative analysis of two surveys conducted among second-year undergraduate economics students. The 2023 survey replicates the methodology of the 2020 study, although a simple research framework was structured around a three-stage model of crowd involvement that highlights: awareness, interest, and engagement. Google Forms was used to collect data on crowdfunding awareness, interest, and engagement.

Findings: The results reveal a significant decline in crowdfunding awareness, with the percentage of students who had never heard of equity crowdfunding increasing from 17% in 2020 to 50,7% in 2023. However, engagement patterns show stability, with approximately 35% of respondents participating in crowdfunding campaigns. Notably, while donation-based crowdfunding remains dominant, its share decreased from 62,9% to 50,7%, with slight increases in investment-oriented forms.

Research limitations/implications: The main study's limitation is a relatively small sample size. It also focuses only on economics students, which may not represent the broader population. The comparison between different groups of respondents presents methodological constraints. Analysis of the evolution of the same group responses would be more appropriate.

Practical implications: The findings suggest a need for enhanced educational initiatives and improved communication strategies in the crowdfunding sector. It applies both companies and platforms seeking to attract younger investors.

Social implications: The research highlights potential gaps in understanding and acknowledging of opportunities that arise for future entrepreneurs and investors through better awareness of alternative financing methods.

Originality/value: This study provides comparative analyses of how crowdfunding awareness changed among Polish students. That offers insights into patterns of financial engagement of future investors.

Keywords: crowdfunding, crowd engagement, alternative finance.

Category of the paper: research paper.

1. Background and problem statement

Crowdfunding, also known as equity crowdfunding or crowdfunding for investments, is one of the newest financing methods that allows a large number of individuals to invest smaller amounts of money in a business, project, or venture in exchange for equity or shares in the company (see Vulkan, Åstebro, Sierra, 2016; Mochkabadi, Volkmann, 2020; Coakley, Lazos, 2021). It leverages the importance of online platforms in connecting entrepreneurs with a diverse group of investors (see Lukkarinen, Teich, Wallenius, Wallenius, 2016; Vismara, 2016). This approach democratizes investment opportunities, making it easier for entrepreneurs to access funding and for investors to support exciting.

While existing research has extensively documented the mechanisms and success factors of crowdfunding platforms (see Ahlers, Cumming, Günther, Schweizer, 2015), there remains a significant gap in understanding how awareness and engagement with crowdfunding evolve over time, particularly among younger potential investors. This gap is especially noteworthy in emerging markets like Poland, where the crowdfunding ecosystem is still developing. Previous studies have primarily focused on static measurements of crowdfunding awareness, leaving the temporal dynamics of market development and public understanding largely unexplored.

Crowdfinancing, from the crowd's perspective, represents a dynamic shift in the way individuals engage with financial opportunities. However, the real meaning (benefits) of crowdfunding may result from the analysis of a broader concept – crowdfunding. In this sense, it empowers people to become active participants in shaping the success of innovative projects and initiatives that resonate with their values and interests (see Valanciene, Jegeleviciute, 2013; Hervé, Schwienbacher, 2019). Their motivations can range from the desire to be part of something groundbreaking to contributing to causes they passionately believe in. This democratized approach to finance not only diversifies investment portfolios but also fosters a sense of community and collaboration as contributors play a pivotal role in helping ideas come to life.

Understanding this shift requires examining how awareness and participation patterns change over time. While initial research by Gemra and Hościłowicz (2021) provided valuable baseline data on crowdfunding awareness among Polish students in 2020, there has been no subsequent analysis of how this awareness has evolved, particularly in light of rapid market developments and regulatory changes in the intervening years.

This research gap becomes particularly significant when considering that young, educated individuals, especially those studying economics and business, represent a crucial demographic for the future of crowdfunding markets. Their level of awareness, understanding, and willingness to participate in crowdfunding can serve as leading indicators for the sector's growth potential. Moreover, tracking changes in awareness and attitudes over time can provide

valuable insights for both platform operators and regulators in shaping the development of this emerging market.

The paper addresses this gap by conducting a comparative analysis of crowdfunding awareness and engagement between 2020 and 2023, focusing specifically on how understanding and attitudes toward crowdfunding have evolved among university students in Poland. This longitudinal perspective offers unique insights into the development of crowdfunding markets and the effectiveness of current market education and engagement strategies.

2. Objectives and methods

The theoretical framework of this study is built upon a three-stage model of crowd involvement in crowdfunding (Figure 1). This model conceptualizes the progression of individual participation through distinct yet interconnected stages: awareness, interest, and engagement.

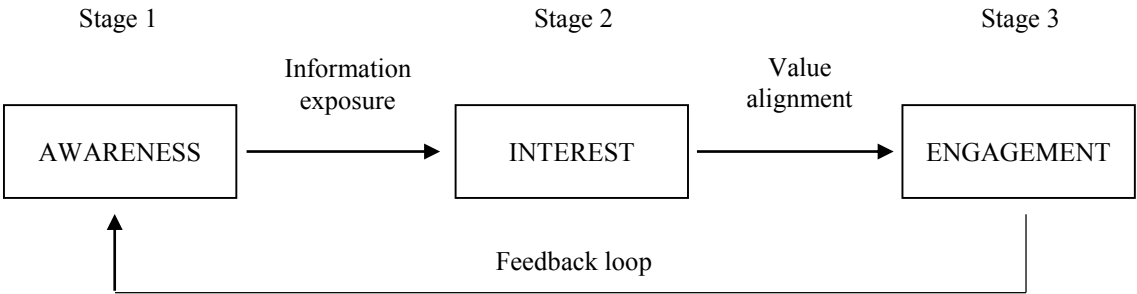


Figure 1. Link between awareness, interest and engagement of the crowd in crowdfunding.

Source: own work.

The awareness stage represents the initial exposure to crowdfunding concepts and opportunities. During this phase, individuals encounter crowdfunding through various channels, including social media, news outlets, and word-of-mouth communication. This passive recognition phase is crucial as it forms the foundation for potential future involvement.

The interest stage marks a transition from passive awareness to active curiosity. At this point, individuals begin to explore crowdfunding platforms, understand mechanics, and evaluate potential benefits. This stage is characterized by information-seeking behavior and value assessment, where individuals align crowdfunding opportunities with their personal interests and investment goals.

The engagement stage represents active participation in the crowdfunding ecosystem. This involvement can take multiple forms, from financial contributions to project advocacy. Notably, engagement often creates a feedback loop, enhancing awareness and interest in new opportunities, thus making the model cyclical rather than purely linear.

The transition through these stages is not always linear, and some individuals may skip stages or oscillate between them. Moreover, the awareness, interest, and engagement in crowdfunding can be influenced by various factors, including the quality of campaigns they encounter, their personal passions, and the level of trust they have in the crowdfunding ecosystem.

This three-stage model serves as an analytical framework for understanding the evolution of crowdfunding participation and helps identify potential barriers or catalysts at each stage of involvement.

Understanding this three-stage model can help both companies and potential investors in the crowdfunding area to impact their approaches to effectively engage with and mobilize the crowd. One of the studies on crowdfunding awareness was conducted in 2020 by Gemra and Hościłowicz (2021) among undergraduate students at the SGH Warsaw School of Economics. The reference for that analysis was research conducted by a German portal crowdfunding.de under the name „Crowdfunding Barometer” (Harms, 2018). In response to the postulated need for further education in the area of crowdfunding and the need for further research, a similar study was undertaken in late 2023 among 2nd year undergraduate students at the Poznań University of Economics and Business. Similarly to the studies from 2020, the Google Forms tool was used to collect answers to questions related to awareness, interest and engagement in crowdfunding. The statistical analysis followed a two-stage approach. First, descriptive statistics were calculated to summarize the survey responses, including frequency distributions and percentages for all categorical variables. Second, a comparative analysis was performed to examine differences between the 2020 and 2023 survey results. So far, 71 completed questionnaires have been received. Although this might be a significant limitation, authors decided to continue the study. The statistical analysis followed a two-stage approach. First, descriptive statistics were calculated to summarize the survey responses, including frequency distributions and percentages for all categorical variables. Second, a comparative analysis was performed to examine differences between the 2020 and 2023 survey results.

The aim, was to check the answers to the set of similar questions after 3 years and how the results had changed. The authors acknowledge the issues arising from comparing the responses of two distinct groups of respondents. Considering that both groups comprised second-year students in economics, the authors opted to validate the findings.

3. Preliminary research results

The analysis of the three stages of the model presented above was made directly by asking respondents direct questions. The first question concerned knowledge of the concept of crowdfunding. A comparison of the results of the current study with the results previously obtained by Gemra and Hościłowicz (2021) is presented in Table 1.

Table 1.

Have you ever heard of the concept of equity crowdfunding?

Possible options	2023	2020
Yes, I have heard and understand this concept	14.1%	45%
Yes, I've heard of it, but I don't know the specific definition of this term	35.2%	38%
No, I've never heard of this concept	50.7%	17%

Source: own work based on Gemra, Hościłowicz, 2021, pp. 67-90.

The analysis of the first 71 responses indicates that 14% of respondents have encountered the concept of crowdfunding and understand the concept, 35% have heard of it, while over half of the respondents have not encountered it before. It is surprising to compare the results with the study from 3 years ago, when the results for the two extreme groups were almost opposite. Only those who have heard of it but do not fully understand it constitute nearly 40% of respondents. This suggests several concerning trends in financial education and market development. Despite growing global popularity of crowdfunding platforms, observed decrease may indicate a potential gap in economic education failing to follow evolving financial markets, limited effectiveness of crowdfunding platforms' marketing strategies or possible shift in students' attention toward other emerging financial instruments (e.g., cryptocurrencies). Moreover, the increase in the number of respondents who have never heard of crowdfunding (from 17% to 50.7%) stays in opposition to the expectations of the "digital age". The paradoxical finding that willingness to participate in crowdfunding has increased, suggesting that while general awareness has decreased, those who do understand the concept see greater value in it.

Table 2.

Have you ever managed to support a crowdfunding project financially (not necessarily in the form of equity crowdfunding)?

Possible options	2023	2020
Yes – 1 time	8.4%	13%
Yes – more than 1 time	26.8%	21%
No	64.8%	66%

Source: own work based on Gemra, Hościłowicz, 2021, pp. 67-90.

The second question concerned current involvement in crowdfunding campaigns (not necessarily equity crowdfunding). The results presented in Table 2 indicate a similar proportion of respondents who participated in such actions (approx. 35%) to others (approx. 65%) in the study from 2020 and 2023. It is worth noting that the number of answers

for repeated participation in such actions increased. Thus, further investigations should concern the identification of factors causing the willingness to participate in crowdfunding projects again (the same or different ones).

Table 3.

In what form did you manage to get involved in the crowdfunding project?

Possible options	2023	2020
Crowdfunding based on pre-sales	28.2%	31%
Debt crowdfunding	5.6%	0%
Equity crowdfunding	18.3%	11.1%
Reward-based crowdfunding	16.9%	16.6%
Donation crowdfunding	50.7%	62.9%

Source: own work based on Gemra, Hościłowicz, 2021, pp. 67-90.

Analysis of the forms in which respondents engage in crowdfunding (see Table 3) still reveals donations as the most numerous group, although their share has dropped from almost 63% to 50,7%. This may be related to strong media promotion, especially in social media. It is these actions that students may hear about most often. Crowdfunding based on pre-sales also ranks second (approximately 30%). This type most likely reflects those interested in a given offer, waiting for the product or service to appear. Among the remaining forms, a slight increase in interest in crowdfunding from an investment perspective can be observed, however, the indicated results may result from the lack of appropriate promotion.

The decrease in donation-based crowdfunding compared to increases in equity (11,1% to 18,3%) and debt (0% to 5,6%) crowdfunding suggests a sophistication in user behavior. This shift from philanthropic to investment-oriented participation indicates that while fewer students may be aware of crowdfunding, those who do participate are engaging in more complex forms of crowd-based financing, previously non-existent in the 2020 study.

Table 4.

Which equity crowdfunding platforms in Poland have you heard about?

Possible options	2023	2020
Crowdway	5.6%	7.7%
CrowdConnect (INC Brokerage House Platform)	2.8%	6%
Wspolnicy.pl	7%	9.5%
Beesfund	1.4%	28.6%
I haven't heard of any of the platforms mentioned	84.5%	63.7%

Source: own work based on Gemra, Hościłowicz, 2021, pp. 67-90.

The most interesting results are the awareness of the existence of equity crowdfunding platforms. Data for the Polish market are presented in Table 4. It turns out that awareness of their existence decreased within 3 years, 84,5% of respondents “haven't heard of any of the platforms mentioned”. Only a few respondents indicate knowledge of presence of individual platforms. Similar results were obtained for similar platforms operating around the world (see Table 5), the percentage of people who “had not heard of any of them” increased from 71% to 83%.

Table 5.*Which equity crowdfunding platforms in the world have you heard about?*

Possible options	2023	2020
AngelLetter	2.8%	-
CircleUp	5.6%	
Fundable	9.9%	
Seedrs	1.4%	
Crowdcube	1.4%	
Companisto	1.4%	
None of the above	83.1%	71%

Source: own work based on Gemra, Hościłowicz, 2021, pp. 67-90.

Currently, slightly less than 9% of respondents know whether crowdfunding is subject to any regulations. This is a decrease compared to previous studies by almost two thirds. The most important observation is that as many as 91.5% of respondents admit that they “do not know it” (see Table 6). This result corresponds to previous data regarding the understanding of the concept of crowdfunding in general.

The declining awareness of crowdfunding platforms, both domestic and international (from 36,3% to 15,5% for Polish platforms and from 29% to 16,9% for international platforms), reveals a concerning fragmentation in the crowdfunding market. Several reasons may explain this trend. First, it suggests that despite increased digitalization during the post-pandemic period, crowdfunding platforms have struggled to maintain their visibility. Second, the sharp decline in awareness of Beesfund (from 28,6% to 1,4%) might indicate problems with platform marketing strategies.

Table 6.*Is the equity crowdfunding market in Poland a legally regulated market?*

Possible options	2023	2020
Yes	8.5%	19%
No	0%	9%
I don't know	91.5%	72%

Source: own work based on Gemra, Hościłowicz, 2021, pp. 67-90.

A positive change in answers can be seen in relation to the question regarding the willingness to engage in co-investment in projects that interest respondents. The results are presented in Table 7. The number of people who categorically do not intend to participate in such campaigns decreased from 15% to 7%. In the current study, over 56% of respondents gave an affirmative answer, and 36% indicated that they “had not decided yet”. Compared to the decreasing awareness of what crowdfunding is, the results are promising.

Table 7.

Imagine that you have found a project or undertaking that interests you and is related to your passion. Its organizers initiate a capital raising campaign in the form of an equity crowdfunding campaign. Would you be ready to take part in such an action?

Possible options	2023	2020
Yes	56.3%	84.9%
I don't know	36.6%	-
No	7%	15.1%

Source: own work based on Gemra, Hościłowicz, 2021, pp. 67-90.

The answer to the question about the size of potential involvement from future investors has changed slightly (see Table 8). The survey reveals that most respondents tend to invest smaller sums than the previous survey showed. This result is probably related to the fact that the respondents are students who often have a limited budget. Nevertheless, these results indicate that the power of crowdfunding is manifested in the participation of many investors committing smaller sums.

Table 8.

How much money would you be willing to spend on a single equity crowdfunding campaign?

Possible options	2023	2020
Up to PLN 100	67.6%	52.8%
From PLN 100 to PLN 1,000	26.8%	37.7%
Over PLN 1,000	5.6%	9.4%

Source: own work based on Gemra, Hościłowicz, 2021, pp. 67-90.

The apparent paradox between decreased awareness and increased willingness to invest requires careful analysis. This trend, combined with the preference for smaller investment amounts (67,6% preferring investments up to PLN 100, up from 52,8%), may suggest a growing risk perception among potential young investors. The increased preference for smaller investments, despite higher inflation rates and general economic uncertainty during the study period, might indicate a more cautious and experimental approach to crowdfunding participation. This behavioral pattern aligns with modern portfolio theory's emphasis on diversification through smaller positions, especially in investment instruments.

4. Conclusion

The results presented in the preceding section should be viewed as an initial analysis based on the first 71 questionnaires collected in the ongoing study. While comparing these results to the data from the 2020 study does not reveal a substantial improvement, several trends are worth highlighting, and these trends are somewhat linked to the initial model employed in this research.

First and foremost, it is evident that students' awareness of crowdfunding and its various forms has not seen significant growth. This might be due to the possibility that a higher level of awareness already exists among other groups who have a predisposed interest in the subject. However, given that crowdfunding fundamentally involves "the crowd", one would expect a higher level of awareness across the board.

Secondly, the increase in interest, although present, is relatively modest. The presence of a substantial group of undecided respondents is intriguing. It could be associated with a lack of understanding regarding the benefits that stem from participating in crowdfunding. In this regard, effective communication and the encouragement of the right attitudes among potential backers become imperative.

Thirdly, there is a discernible rise in commitment, albeit a minor one. This increase may be attributed to certain gaps in project communication, particularly in the initial phases of creating awareness and generating interest among respondents.

These observations serve as a valuable guide for more comprehensive and in-depth research in the future. Moreover, they hold practical implications for entrepreneurs seeking to harness crowdfunding as a source of financing. The findings of this study highlight several implications for practitioners. Key recommendations include: developing targeted educational programs, implementing simplified onboarding processes with lower investment requirements for young investors, and focusing on clear risk communication strategies. These steps could help bridge the identified awareness gap with more informed participation in crowdfunding markets.

Future research should address current limitations and expand understanding of crowdfunding dynamics. Priority areas include: conducting longitudinal studies tracking investors engagement over time, investigating the psychological factors influencing the transition from awareness to active participation, and evaluating the effectiveness of various educational approaches in increasing crowdfunding literacy. Additionally, examining the relationship between traditional investment behavior and crowdfunding participation could provide valuable insights for market development.

References

1. Ahlers, G.K., Cumming, D., Günther, C., Schweizer, D. (2015). Signaling in equity crowdfunding. *Entrepreneurship theory and practice*, 39(4), pp. 955-980.
2. Coakley, J., Lazos, A. (2021). New developments in equity crowdfunding: A review. *Review of Corporate Finance*, 1(3-4), pp. 341-405.
3. Gemra, K., Hościłowicz, P. (2021). Crowdfunding Awareness in Poland. *Gospodarka Narodowa The Polish Journal of Economics*, 306(2), pp. 67-90.

4. Harms, M. (2018). *Crowdfunding Barometer*. Retrieved from: <https://www.crowdfunding.de/literatur/crowdfunding-barometer-2018/>, 20.10.2023.
5. Hervé, F., Schwienbacher, A. (2019). Crowdfunding and innovation. *Contemporary Topics in Finance: A Collection of Literature Surveys*, pp. 331-349.
6. Lukkarinen, A., Teich, J.E., Wallenius, H., Wallenius, J. (2016). Success drivers of online equity crowdfunding campaigns. *Decision Support Systems*, 87, pp. 26-38.
7. Mochkabadi, K., Volkmann, C.K. (2020). Equity crowdfunding: a systematic review of the literature. *Small Business Economics*, 54, pp. 75-118.
8. Valanciene, L., Jegeleviciute, S. (2013). Valuation of crowdfunding: benefits and drawbacks. *Economics and management*, 18(1), pp. 39-48.
9. Vismara, S. (2016). Equity retention and social network theory in equity crowdfunding. *Small Business Economics*, 46, pp. 579-590.
10. Vulkan, N., Åstebro, T., Sierra, M.F. (2016), Equity crowdfunding: A new phenomena. *Journal of Business Venturing Insights*, 5, pp. 37-49.