

# Crowdfunding and Entrepreneurial Drive: A New Paradigm in the Sharing Economy

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**Abstract.** *The popularization of the sharing economy has prompted transformative shifts in all economic activity, particularly in innovative financing options like crowdfunding. This study examines college students' perspectives on entrepreneurship and the role of crowdfunding as a tool for securing funds for their ventures. This research applies the Theory of Planned Behavior to explore the impact of students' attitudes, perceived control and social norms on entrepreneurship. It also examines the impact of formal entrepreneurial and financial education on entrepreneurial intentions and crowdfunding success. Structural Equation Modeling (SEM) was utilized to assess the hypotheses based on data collected from a survey conducted across multiple countries in the Balkans. The outcomes indicated that social norms have minimal impact on entrepreneurial intentions. Nonetheless, all other hypotheses showed significance. The findings also highlight the need to develop entrepreneurial skills and knowledge of financing options, suggesting the inclusion of crowdfunding in education to boost financial literacy and prepare students for modern entrepreneurship.*

**Keywords.** *entrepreneurship, crowdfunding, sharing economy*

## 1 Introduction

In recent years, the advent of the sharing economy has brought different transformative changes in various areas of economic activity, and when it comes to innovative financing options, particularly in the realm of entrepreneurship. One of the symptomatic novelties is systematic utilization of underexploited resources through digital platforms for mutual benefit, such as crowdfunding platforms (Richter et al., 2017). Those platforms have enabled access to capital from a diverse pool of investors without the constraints imposed by traditional financial institutions. This has especially been beneficial for small and medium enterprises (SMEs) (De Crescenzo, 2016), which often encounter challenges in securing conventional funding due to perceived risk and lack of collateral.

In the given context, the authors of this paper seek to explore if college students see the possible potential of crowdfunding as a propiate catalyst for entrepreneurial ventures within the sharing economy. By examining the interplay between entrepreneurial aspirations, crowdfunding mechanisms, and the broader socio-economic landscape, this study aims to unravel the underlying mechanisms driving entrepreneurial behavior among the researched population. By examining theoretical perspectives in current literature and conducting empirical research, this work aims to enhance the comprehension of the changing dynamics within modern entrepreneurship.

In essence, this paper represents a structured effort to comprehend the entrepreneurial ambitions of students and the determinants influencing their choices. Furthermore, it delved into students' acquaintance with crowdfunding and its correlation with their entrepreneurial aspirations and investigated the significance of formal education in shaping entrepreneurial intentions. Drawing upon insights from theoretical frameworks such as the Theory of Planned Behavior (TPB) and empirical evidence from a multi-country, regional survey, this paper seeks to clarify the factors shaping entrepreneurial intentions and the usage of crowdfunding for financing decisions.

## 2 Literature review

### 2.1 The theory of planned behavior, entrepreneurship and education

The Theory of Planned Behavior (TPB) is a key social psychology theory used to predict intentions, especially entrepreneurial ones (Baber, 2022). It indicates that factors such as attitude, social norms, and perceived behavioral control play a significant role in influencing the decision to become an entrepreneur (Yulandreano & Rita, 2023). Entrepreneurship requires initial considerations. Numerous researches have validated the effectiveness of (TPB) in forecasting entrepreneurial intentions (Baber, 2022; Munir et al., 2019). This forms the basis for the hypotheses of this study:

**H1:** Attitude towards entrepreneurship has a positive effect on entrepreneurial intentions.

**H2:** Social norms have a positive effect on entrepreneurial intentions.

**H3:** Perceived behavioral control has a positive effect on entrepreneurial intentions.

Entrepreneurial education, encompassing all educational and training activities, aims to foster entrepreneurial intentions and related factors such as knowledge, desirability, and feasibility. Since its inception at Harvard Business School in 1945, it has rapidly proliferated and garnered significant scholarly attention. While (Li & Wu, 2019) research highlights a positive relationship between entrepreneurial education and both entrepreneurial attitudes and skills, (Mahendra et al., 2017) suggest otherwise. This divergence in findings highlights the need for further exploration in this area. This suggests the hypothesis:

**H4:** Entrepreneurial education has a positive effect on entrepreneurial intentions.

### 2.2. Crowdfunding in sharing economy

Globalization and the advancement of information technologies which has revolutionized numerous industries (Stanimirovic et al., 2023), have spurred the growth of the sharing economy (SE) which can be characterized as a digitally enabled economic model that promotes the systematic sharing of underutilized resources for mutual benefits (Richter et al., 2017). SE is seen as a catalyst for national economic growth (Cherry & Pidgeon, 2018), and it is projected to exceed \$110 billion, offering significant opportunities for entrepreneurs (Richter et al., 2017).

Crowdfunding, part of SE, involves raising funds for projects and companies, from a crowd, via online platforms, while investors are rewarded with benefits or shares (Richter et al., 2017). Small and medium-sized enterprises (SMEs) frequently encounter difficulties in obtaining the essential funding for their business growth (Shams et al., 2018). They are typically seen as high-risk and non-bankable. Crowdfunding has emerged as an alternative funding source, offering a broader and more flexible reach without the need for collateral (Yulandreano & Rita, 2023). It has become a popular fundraising strategy for entrepreneurs globally since 2012 (Rahman et al., 2020) with over 40% of funding volume in the past five years raised by entrepreneurs (Petkova, 2022; Rahman et al., 2020). Additionally, Crowdfunding is prevalent among people aged 35-44 and students, emphasizing the need for student-focused research (Warwas et al., 2022).

**H5:** Entrepreneurial intentions has a positive effect on financing through crowdfunding.

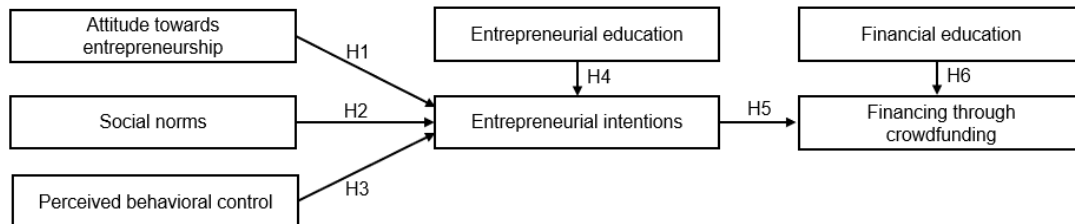
### 2.3 Financial education

Formal financial education is vital for early exposure to financial concepts, providing access to underexposed groups, and reducing literacy acquisition costs (Lusardi, 2019). A recent report reveals that 48% of students express a desire to learn personal finance in school, yet most feel they are not gaining adequate financial management skills (GoStudent, 2023).

Universities often use crowdfunding in teaching, but its inclusion in specific courses is debated (Wenzlaff & Spaeth, 2023). While crowdfunding awareness varies among researchers, those familiar with it have found a positive link with entrepreneurial intentions (O'Donnell, 2023). Innovation teaching has evolved beyond just patenting ideas. It now includes open innovation methods, with crowdfunding being a significant part of the growing trend of open innovation practices (Wenzlaff & Spaeth, 2023). This all contributes to the formation of a hypothesis:

**H6:** Financial education has a positive effect on financing through crowdfunding.

Figure 1 presents the proposed conceptual model, which incorporates all the previously mentioned elements, their interconnections, and hypotheses.



**Figure 1.** Proposed conceptual model (Source: Authors' work)

### 3 Conducted research

Data was collected in February 2024 via an anonymous survey completed by college students of all levels from Serbia, Montenegro, Bosnia and Herzegovina, and Croatia. The survey consisted of eight sections, including demographics and a section for each proposed model construct. Responses were collected through Google Forms and rated on a Likert scale that ranges from one, indicating strong disagreement, to five, indicating strong agreement. The data was subsequently analyzed using IBM SPSS 23 and IBM AMOS 26 for SEM model validation.

#### 3.1 Results

A total of 230 responses were collected, with 87 male (36.1%) and 147 female respondents (63.9%). The majority of survey participants were first-year students at 39.1%, with third-year and second-year students next at 19.1% and 14.3%, respectively. Additionally, there were 23 fourth-year students (10%) and 23 master's students, 14 graduates (6.1%) who did not continue their studies, and 3 doctoral students (1.3%). The majority of survey participants are from the Republic of Serbia, with Montenegro, Bosnia and Herzegovina, and Croatia also contributing a significant number of respondents. Most students had an average grade between 8.00 and 8.99 (43%), followed by those with an average grade of 7.00-7.99 (33.9%), while the fewest students had an average grade between 6.00 and 6.99.

Upon examining the descriptive statistics, it is noticeable that students gave the highest rating (mean=4.249) to entrepreneurial education, indicating a desire for education and emphasizing the importance of entrepreneurial education as a mandatory subject. In addition, they particularly highlighted social norms (mean=4.226), emphasizing family and friends' support, while they gave a somewhat lower rating to the statement that entrepreneurship is a highly positioned profession in society. Regarding other constructs, the ratings are more reserved, ranging from a mean=3.282 for financing through crowdfunding to a mean=3.590 for entrepreneurial intentions. Of all the statements, students rated "I would like to educate myself about entrepreneurship" (4.496) the highest, while the lowest-rated statement was "Formal education provides me with all the necessary knowledge about investment opportunities and fundraising" (2.600). Also, as many as 158 students reported having a low level of familiarity with the concept of crowdfunding, while 85 had never even heard of it, so it is not surprising that only 41.7% of respondents support the concept of a sharing economy (rated 4 or 5).

Before the SEM analysis is carried out, it's essential to examine the reliability of the scales proposed. Cronbach's alpha, a measure of internal consistency, was used for this purpose. It ranges from 0 (complete inconsistency) to 1 (perfect consistency). A value of 0.70 or higher is considered desirable (Taber, 2018). The values for these indicators are as follows: Attitude towards entrepreneurship stands at 0.868, social norms at 0.717, perceived behavioral control at 0.828, entrepreneurial education at 0.786, entrepreneurial intentions at 0.932, financial education at 0.781, and financing through crowdfunding at 0.789. Therefore, it can be concluded that the condition has been met in all cases.

The SEM analysis was applied next. The initial model incorporated an additional construct - Promotion, and the hypothesis that promotion positively affects financing through crowdfunding was also analyzed. Model was not acceptable, with a Chi-square value of 1226.870, 397 degrees of freedom ( $p=0.000$ ),

and a  $\chi^2/df$  ratio of 3.090, which is above the acceptable threshold of 2 (Hu & Bentler, 1999). The RMSEA value was 0.096, which is less than the upper limit of 0.10 but not ideal according to stricter literature (Hu & Bentler, 1999).

The initial model was improved by removing the Promotion construct and making changes suggested by modification indices, which resulted in a final model with enhanced fit. The Chi-square value reduced to 724.242 with 368 degrees of freedom ( $p=0.000$ ), and the  $\chi^2/df$  ratio improved to 1.968, which is below the threshold of 2, indicating a good fit. The RMSEA value improved to 0.065. Other indices such as TLI (0.900) and CFI (0.916) were above the recommended 0.90 thresholds, indicating an acceptable fit for the modified model (Govindaraju et al., 2020).

Given the outcomes, it is concluded that the model's fit was enhanced, and the adjusted measurement model demonstrated an acceptable fit. Consequently, the results of the Structural Equation Modeling (SEM) are displayed in Table 1.

**Table 1.** Summary of Results for the Final Model (Source: Authors' work)

Construct	Predictor(s)	Std path	UnStd path	C.R.	p value	R <sup>2</sup>
Entrepreneurial intentions	Attitude towards entrepreneurship	0.716	0.583	12.022	**	0.736
	Social norms	-0.090	-0.137	-1.798	0.072	
	Perceived behavioral control	.0446	0.397	7.819	**	
	Entrepreneurial education	0.126	0.120	2.549	**	
Financing through crowdfunding	Entrepreneurial intentions	0.267	0.271	3.852	**	0.175
	Financial education	0.308	1.297	2.162	**	

The study tested five hypotheses. Table 1 shows that all paths in the model, except H2, were significant. Unstandardized estimates reveal that the impact of Attitude towards entrepreneurship on Entrepreneurial intentions was positive and significant ( $b = 0.583$ ,  $t = 12.022$ ,  $p < 0.001$ ), supporting Hypothesis 1. The effect of Social norms on Entrepreneurial intentions was negative and not significant ( $b = -0.137$ ,  $t = -1.798$ ,  $p = 0.072$ ), rejecting Hypothesis 2. Hypothesis 3 was accepted as the influence of Perceived behavioral control on Entrepreneurial intentions was positive and significant ( $b = 0.397$ ,  $t = 7.819$ ,  $p < 0.001$ ). The results indicated that Entrepreneurial education positively impacted Entrepreneurial intentions, accepting Hypothesis 4 ( $b = 0.120$ ,  $t = 2.549$ ,  $p < 0.05$ ). Hypothesis 5 was accepted as the impact of Entrepreneurial intentions on Financing through crowdfunding was positive and significant ( $b = 0.271$ ,  $t = 3.852$ ,  $p < 0.001$ ). Hypothesis 6 was also accepted as the impact of Financial education on Financing through crowdfunding was positive and significant ( $b = 1.297$ ,  $t = 2.162$ ,  $p < 0.05$ ).

The squared multiple correlation coefficient (R<sup>2</sup>) for Entrepreneurial intentions was 0.736, indicating that 73.6% of the variance of the Entrepreneurial intentions construct was explained by Attitude towards entrepreneurship, Social norms, Entrepreneurial education and Perceived behavioral control. However, Entrepreneurial intentions and Financial education explained only 17.5% of the Financing through crowdfunding construct.

### 3.2 Discussion and limitations

Research aims to comprehend students' entrepreneurial aspirations and the underlying factors that influence their decision-making. We have adapted the Theory of Planned Behavior (TPB) and conducted an analysis of its impact on entrepreneurial intentions. Furthermore, we explored the relationship between formal education, entrepreneurship, and crowdfunding. Lastly, we investigated students' familiarity with crowdfunding and its relevance to their utilization of this funding method. The findings highlight the importance of fostering entrepreneurial skills and awareness of financing options.

The study affirms TPB's relevance in entrepreneurship, highlighting the significance of attitudes and perceived control on entrepreneurial intentions, in line with previous studies (Yulandreano & Rita, 2023;

Baber, 2022; Munir et al., 2019), but contradicts the notion that social norms significantly influence these intentions (Baber, 2022). The findings suggest that a strong inclination towards entrepreneurship, coupled with the belief in its financial benefits, serves as a powerful motivator for students to embark on entrepreneurial ventures. This motivation not only leads to the establishment of businesses but also contributes to the broader economic development of nations, underscoring the critical nature of this research area. Moreover, the research highlights the importance of realistic process understanding and control over entrepreneurial activities. Although students acknowledged their current limitations in theoretical knowledge and practical experience, their strong interest in learning and the high value placed on entrepreneurial education—advocating for it to be a mandatory part of the curriculum—indicate a mature recognition of the responsibilities entailed in entrepreneurship. This perspective reflects a balanced view among students, who are eager to learn yet aware of the challenges ahead. The positive correlation between entrepreneurial education and intentions, as demonstrated by this study and corroborated by existing literature (Li & Wu, 2019), underscores the significance of integrating entrepreneurship into educational programs.

The study identifies a significant gap in financial education regionally, with students showing insufficient knowledge in basic finance and emerging areas like crowdfunding. It advocates for the inclusion of crowdfunding in educational syllabuses to not only enhance financial literacy and modernize learning, but to prepare students for the future, particularly in understanding the sharing economy's impact on economic growth. This recommendation aligns with prior research (Wenzlaff & Spaeth, 2023), pointing to a broader need for comprehensive financial education that embraces current trends such as sharing economy. Limitations exist in generalizing the findings of the research beyond the specific context or population studied. Additionally, self-reporting bias should be considered, as participants may have inaccurately assessed their own attitudes and behaviors. This study's reliance on data sourced exclusively from a single questionnaire introduces the potential for common method bias, a limitation acknowledged and to be addressed in future research through collecting data from diversified sources. Furthermore, the dynamics of crowdfunding as a financing method will be explored through additional variables in future research.

## 4 Conclusions

This paper explored liaisons among entrepreneurial aspirations, crowdfunding, and the sharing economy. The research indicates that the development of entrepreneurship significantly depends on students' attitudes and aspirations towards it, with formal education acting as a critical base for achievement. Students' current familiarity with crowdfunding and the sharing economy is not at an optimal level, which can be addressed by integrating these concepts into formal education, since students consider it a trusted resource. In order to achieve economic development through entrepreneurship it is essential to invest in education and actively support both existing and aspiring entrepreneurs by educating them on innovative financing techniques and ensuring their accessibility.

## References

- Baber, H. (2022). Entrepreneurial and Crowdfunding Intentions of Management Students in South Korea. *World Journal of Entrepreneurship, Management and Sustainable Development*, 18(1), 47–61. <https://doi.org/10.47556/J.WJEMSD.18.1.2022.3>
- Cherry, C. E., & Pidgeon, N. F. (2018). Is sharing the solution? Exploring public acceptability of the sharing economy. *Journal of Cleaner Production*, 195, 939–948. <https://doi.org/10.1016/j.jclepro.2018.05.278>
- De Crescenzo, V. (2016). The Role of Equity Crowdfunding in Financing SMEs: Evidence from a Sample of European Platforms. In *Crowdfunding for SMEs* (pp. 159–183). Palgrave Macmillan UK. [https://doi.org/10.1057/978-1-137-56021-6\\_7](https://doi.org/10.1057/978-1-137-56021-6_7)
- GoStudent. (2023). Future of Education Report 2023. <https://hi.gostudent.org/en/pr/2023-future-of-education-report/>

- Govindaraju, B., Jeyasingam, J., Habib, M., & Letchmana, U. (2020). A Structural Equation Model for the Study of Education Supply Chain Management Practices in Private Universities in Malaysia. *International Journal of Supply Chain Management*, 9(2). <http://excelingtech.co.uk/>
- Hu, L., & Bentler, P. M. (1999). Cutoff criteria for fit indexes in covariance structure analysis: Conventional criteria versus new alternatives. *Structural Equation Modeling: A Multidisciplinary Journal*, 6(1), 1–55. <https://doi.org/10.1080/10705519909540118>
- Li, L., & Wu, D. (2019). Entrepreneurial education and students' entrepreneurial intention: does team cooperation matter? *Journal of Global Entrepreneurship Research*, 9(1), 35. <https://doi.org/10.1186/s40497-019-0157-3>
- Lusardi, A. (2019). Financial literacy and the need for financial education: evidence and implications. *Swiss Journal of Economics and Statistics*, 155(1), 1. <https://doi.org/10.1186/s41937-019-0027-5>
- Mahendra, A. M., Djatmika, E. T., & Hermawan, A. (2017). The Effect of Entrepreneurship Education on Entrepreneurial Intention Mediated by Motivation and Attitude among Management Students, State University of Malang, Indonesia. *International Education Studies*, 10(9), 61. <https://doi.org/10.5539/ies.v10n9p61>
- Munir, H., Jianfeng, C., & Ramzan, S. (2019). Personality traits and theory of planned behavior comparison of entrepreneurial intentions between an emerging economy and a developing country. *International Journal of Entrepreneurial Behavior & Research*, 25(3), 554–580. <https://doi.org/10.1108/IJEBr-05-2018-0336>
- O'Donnell, J. (2023). Issues Related to Research Crowdfunding at Australian Universities. In R. Lenart-Gansiniec, K. Wenzlaff, & S. Späth (Eds.), *Crowdfunding in Higher Education Institutions: Theory and Best Practices*. Springer International Publishing. <https://doi.org/10.1007/978-3-031-30069-1>
- Petkova, M. (2022, August 3). 15+ Crowdfunding Statistics [2022]. <https://dontdisappoint.me.uk/resources/finance/crowdfunding-statistics/>
- Rahman, M. P., Mohd Thas Thaker, M. A., & Duasa, J. (2020). Developing a Shari'ah-compliant equity-based crowdfunding framework for entrepreneurship development in Malaysia. *ISRA International Journal of Islamic Finance*, 12(2), 239–252. <https://doi.org/10.1108/IJIF-07-2018-0085>
- Richter, C., Kraus, S., Brem, A., Durst, S., & Giselbrecht, C. (2017). Digital entrepreneurship: Innovative business models for the sharing economy. *Creativity and Innovation Management*, 26(3), 300–310. <https://doi.org/10.1111/caim.12227>
- Shams, A., Hoque, M. M., Awang, Z. Bin, Muda, H., & Salleh, F. (2018). Ramification of crowdfunding on Bangladeshi entrepreneur's self-efficacy. 129–138. <https://doi.org/10.5267/j.ac.2018.04.001>
- Stanimirović, P., Petrović, K., Borozan, T., & Radojčić, M. (2023, December). Project Management Software: Catalyst Or Constraint? XIV Conference of Business and Science SPIN'23 Digital and Green Economy Development.
- Taber, K. S. (2018). The Use of Cronbach's Alpha When Developing and Reporting Research Instruments in Science Education. *Research in Science Education*, 48(6), 1273–1296. <https://doi.org/10.1007/s11165-016-9602-2>
- Warwas, I., Podgórnjak-Krzykacz, A., Wiktorowicz, J., & Górniak, J. (2022). Demographic and generational determinants of Poles' participation in the sharing economy: Findings from a survey data analysis. *PLoS ONE*, 17(6 June). <https://doi.org/10.1371/JOURNAL.PONE.0265341>
- Wenzlaff, K., & Spaeth, S. (2023). Experiences in Educating Students and Professionals About Crowdfunding. In R. Lenart-Gansiniec, K. Wenzlaff, & S. Späth (Eds.), *Crowdfunding in Higher Education Institutions: Theory and Best Practices* (pp. 71–102). Springer International Publishing. <https://doi.org/10.1007/978-3-031-30069-1>
- Yulandreano, E., & Rita, M. R. (2023). Investment Decisions on the Crowdfunding Platform Based on the Theory of Planned Behavior. *Jurnal Manajemen Bisnis*, 14(1), 36–52. <https://doi.org/10.18196/mb.v14i1.16494>