

5. THE IMPACT OF THE COVID-19 PANDEMIC ON THE PROSPECT OF STARTING OWN BUSINESS AMONG STUDENTS OF ECONOMIC STUDIES

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Abstract

The research objective was to present the significance of the coronavirus pandemic in the context of starting a business, by business students. The empirical basis was fabricated upon the results of a survey conducted at the Poznań University of Economics and Business. The research was dynamic and conducted in two stages: in February 2020 (just before the first lockdown in Poland) wherein 243 students were surveyed and in March 2021 (a year after the first lockdown), in which 270 students were surveyed. The respondents were asked, among other issues, to describe their professional experience, as well as perspectives and plans concerning setting up and managing their own company. In addition, factor analysis was used to deepen the findings. The pandemic has significantly influenced students' professional plans, including, above all, an increased desire to start their own business. In addition, of particular importance for students at the beginning of their professional career is the flexibility and ease of adaptation to changing conditions in the business environment. The research was limited because it was based only on students of Poznań University of Economics and Business. Extending the research to other social groups such as students of other universities, the unemployed, graduates of technical / vocational schools, economically active people, elderly people, etc. would allow to explore the reasons and conditions for setting up a business. The article shows how students' perspectives and attitudes towards setting up their own businesses have changed. The results of the research may be of particular interest to entities such as public administration, local governments, labour offices and all institutions which are focused on education and career shaping.

Keywords: academic entrepreneurship, self-employment, the COVID-19 pandemic, economic activity.

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Introduction

Entrepreneurship in management terms is defined as a way of acting that involves taking up new, unconventional and risky ventures, while showing commitment in putting them into practice. In Poland, entrepreneurship or entrepreneurial attitudes are mainly associated with the desire to establish and run a business. However, it should be emphasized that this is a highly simplified concept (Borowiec, 2011, p. 40).

Academic entrepreneurship can also be seen in this context, which is not only identified with activity in the sphere of practical support for new companies created on the basis of know-how (Matusiak & Matusiak, 2007, p. 158), but also the involvement of various units (academic institutions, academics, doctoral students and students) in the establishment, development and management of economic activity that does not have to be based on intellectual property (Bąkowski, Zasiadły, & Guliński, 2005, p. 10). The increased importance of academic entrepreneurship stems from the fact that it contributes, among other things, to increased competitiveness, not only for the national economy, but also for the European and global economy (Poznańska, 2014, p. 164). However, the current rapidly spreading SARS-CoV-2 virus and the mutations created from it, as well as the multiple economic exacerbations accompanying this pandemic, have caused different reactions related to start-up planning, especially in the context of young, college-age individuals.

The main objective of the chapter is to present the results of research related to the impact of the coronavirus pandemic on the perspective of setting up their own business by students of economics at Poznań University of Economics and Business. The authors focused on the most important determinants associated with planning to open their own business. The research had the form of a diagnostic survey using the CAWI (Computer-Assisted Web Interview) method. The results were analysed using descriptive statistics and factor analysis.

The theoretical part focuses on explaining the concept of academic entrepreneurship from the perspective of the conducted research. The empirical part, on the other hand, presents the results of the study on the impact of pandemic on students' career prospects.

5.1. The essence of academic entrepreneurship

The term “academic entrepreneurship” was created in the American system of organizing scientific research (Budyldina, 2018; Meoli & Vismara, 2016). University teachers working in American universities behave like typical entrepreneurs, as they are not only involved in academic research, but also actively participate in

entrepreneurial activities. In essence, academic entrepreneurship manifests itself in the fact that an academic will set up a company in order to commercialise the results of their research, and the aspect of “academia” stems from the fact that innovations are the result of the research and work of the academic (Micozzi, 2020).

Academic entrepreneurship is discussed in detail in the chapter “Advancements in conceptualisation and studies on academic entrepreneurship phenomenon”. However, as rightly noted, the concept is complex and variously interpreted. In the context of the conducted research, it is necessary to focus on a selected specific approach to the term in question, and this requires clarification and detailing of the theoretical basis for consideration.

In recent years, the term “academic entrepreneurship” is gaining more and more importance and is used both in the context of research and theoretical analysis, as well as in practical forms. The following sources can be distinguished to explain this increased interest in the scientific community (Kumański, 2016, p. 89; K. Matusiak, 2009, p. 30; Matusiak & Matusiak, 2007, p. 156; Nowak, 2011, pp. 45–62; Nowak & Wściubiak, 2020, pp. 160–172; Poznańska, 2014, p. 165):

- the need to make the educational offer addressed to students more attractive, where the emphasis is placed on the practical use of the acquired knowledge in their own companies,
- increased importance of knowledge as a factor of economic development,
- possibility of financing research from public and private institutions,
- increasing the prestige of universities,
- the need for universities and scientific institutions to look for new forms of additional income (by creating channels of communication and cooperation with business),
- the significant influence of the development of academic entrepreneurship on the process of building competitiveness and innovation of enterprises,
- possibility of commercialization of new ideas and transfer of ideas “from science to practice”,
- growing market requirements creating barriers for ambitious university graduates that are difficult to overcome, hence self-employment becomes a relatively simple solution to this problem,
- shortening the time of the innovation process—“from idea to market application”, which enforces the necessity of spatial alignment of scientific institutions or universities with entrepreneurs.

However, defining the notion of academic entrepreneurship is not easy and may be interpreted differently. It is worth noting, however, that initially this concept was limited to the creation of technological companies of spin-off and spin-out type by academic staff (this concerned mainly Anglo-Saxon countries) (Piech, 2010, p. 37). Currently, the term is understood much more broadly, as it covers all professional

activity of the university (including that of employees and students). According to Matusiak (2006, pp. 110–111), academic entrepreneurship is a programmed, Schumpeterian “creative destruction”, and its implementation requires a “specific matrix” constructed of 3 elements:

- science, research and education sector (provides the results of scientific and research work, generates a qualified workforce and enables flexible possibilities of professional development, has potential entrepreneurs among students and academics);
- support systems (includes both programs and institutions supporting technology transfer and development of initial phases of company development);
- local innovation and entrepreneurship environment (composed of small and medium-sized enterprises, specialized business services, risk financing institutions and potential cooperators and buyers).

Through interdependence and permeation, the above-mentioned elements generate conditions for the development of modern business in the post-industrial economy. As a result, the following are created: innovative companies, revolutionary ideas and solutions and new products, services or technologies. Such networking of infrastructure and institutions has a strong environmental character, thanks to which clusters or technology parks are created (Matusiak & Matusiak, 2007, p. 161) (see Figure 5.1).

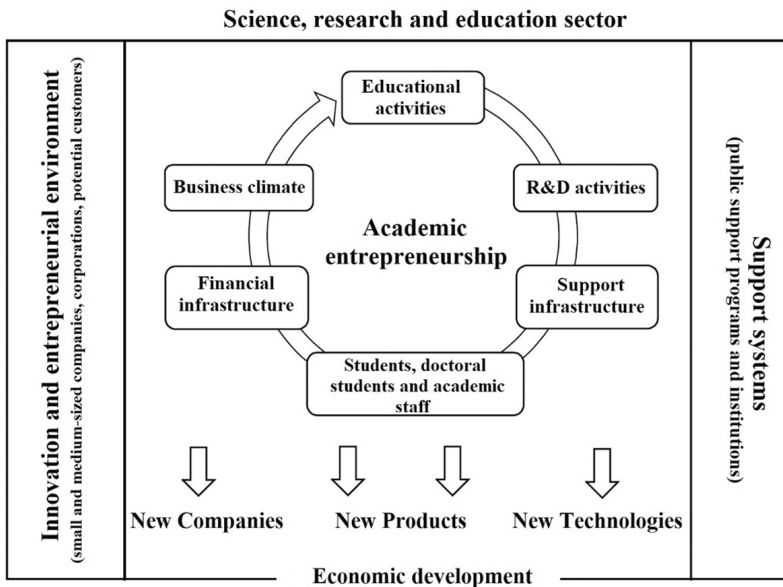


Figure 5.1. Academic entrepreneurship resources

Source: Based on (Matusiak, 2006, p. 111).

Academic entrepreneurship is an extremely complex phenomenon, as it concerns activities not only of an individual nature, but also activities within the whole organization (Klonowska-Matynia & Palinkiewicz, 2013, p. 34). Moreover, it is often treated as a specific type of entrepreneurship focusing on the creative attitude of the scientific community and the implementation of its effects in economic practice (Poznańska, 2014, p. 166).

The concept of academic entrepreneurship in Poland in the area of scientific community is so capacious and generally defined that sometimes there are problems with its interpretation and understanding (Stawasz, 2007, pp. 265–266). There should, therefore, be a holistic and comprehensive approach to the issue of academic entrepreneurship that would take into account its various manifestations (Komarnicka, 2020, p. 25).

Continuing to think in this direction, it can be concluded that academic entrepreneurship also means encouraging the creation of companies by all persons in any degree connected with the university, especially students. A similar view is taken by Szara and Pierścieniak (2011, p. 35), who see academic entrepreneurship as not only a form of combating graduate unemployment, but also a way of adapting to contemporary development trends.

Also, according to Prochorowicz (2009, pp. 65–66), academic entrepreneurship has become a fashionable concept in recent years, where it should be understood, among other notions, as supporting individual student ventures. Thus, it should be seen as a kind of incentive addressed directly by the academic community to students to take the risk of running a business.

The issue of academic entrepreneurship is not only the subject of theoretical considerations. Interesting research on this topic was conducted by Misiak-Kwit and Zhang (2022, pp. 122, 129), where a pilot study was conducted on young people's attitudes towards starting their own business. Polish and Chinese students were analysed. The choice of Poland and China resulted from several similarities, for example: similar political and economic systems before the economic transformation, similar Human Development Index (HDI). The results clearly indicate that in both countries there should be a particular focus on entrepreneurial competences. According to young people (both Polish and Chinese students), an entrepreneurial person should be characterised by readiness to take responsibility, diligence, enthusiasm, conscientiousness and resourcefulness. However, the authors underline that due to the size of the sample, the research results cannot be generalised.

Taking into account the above considerations, the next section of the paper focuses on the presentation of research results covering the aspect of setting up own business by students.

5.2. Methodology of research

The aim of the research was to present the significance of the coronavirus pandemic in the context of setting up a business by students of economics. The research problem has taken the form of a research question: how has the coronavirus pandemic affected students' career plans?

The research population consisted of all students of Poznań University of Economics and Business, the research sample was selected using the method of purposive selection of typical units. The research was dynamic and conducted in two stages: in February 2020 (just before the introduction of the first lockdown in Poland) where 239 students were surveyed stationary and in March 2021 (a year after the introduction of the first lockdown) in which 270 students were surveyed using the CAWI method (Computer-Assisted Web Interview). It is also worth mentioning that the selection of respondents (students of economic studies) was based on the fact that they should have knowledge and experience in the functioning of the market and the enterprise.

The research was conducted using a survey questionnaire that included questions about students' plans in terms of future careers and prospects for starting their own business. The processing of empirical data was controlled. The collected empirical material was verified, reduced and then processed into an alphanumeric form using specialized software. For this purpose, the statistical package Statsoft Statistica 12 and auxiliary spreadsheet Microsoft Excel were used. Descriptive statistics methods and factor analysis were used in the data analysis.

5.3. Characteristics of the research sample

Finally, the survey covered 509 students of Poznań University of Economics and Business. It is worth noting that the respondents were diverse in terms of gender, age, year, degree and mode of study. Looking at Figure 5.1, it can be seen that the majority of respondents were women (64.24%), while men made up 35.76% of the sample. The respondents were predominantly between the ages of 20–25 constituting a total of 93.3% of the respondents. This state of affairs is due to the structure of students of Poznań University of Economics and Business. Detailed data taking into account the time of the survey are presented in Figure 5.2.

Upon analysing the structure (shown in Figure 5.3) of the respondents by mode and degree of study, it can be observed that among the respondents both before and during the pandemic, full-time students (28.5% and 37.5%, respectively) predominated over part-time students (18.5% and 15.7%, respectively). However, it is worth noting that the predominant group of respondents before the pandemic

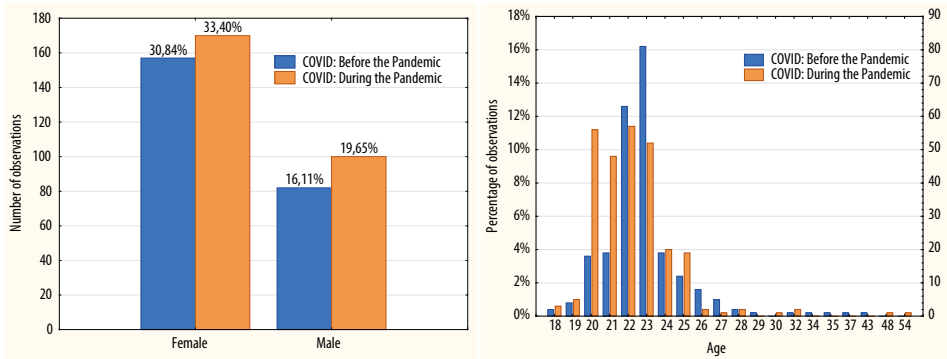


Figure 5.2. Structure of respondents by gender and age

Source: Own elaboration based on empirical results.

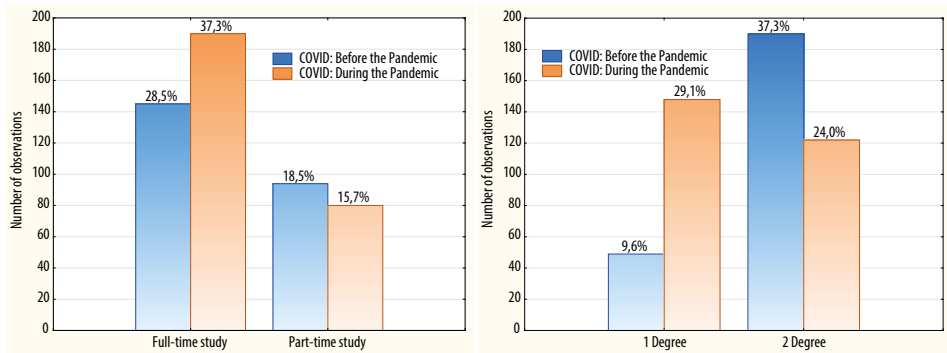


Figure 5.3. Structure of respondents by mode and degree of study

Source: own elaboration based on empirical results.

were second degree students (37.3%), while during the pandemic, these were first degree students (29.1%).

When examining the current occupational situation of the respondents, it should be noted that both before and during the pandemic, the respondents were economically active (36.9% and 35.2%, respectively). However, one can see a significant increase in the proportion of non-workers (by as much as 79%) due to the pandemic. The forms of employment based on a contract of mandate or a contract of employment were clearly dominant. In this case, no large differences were observed between the survey stages. Detailed data with the distribution of responses are shown in Figure 5.4.

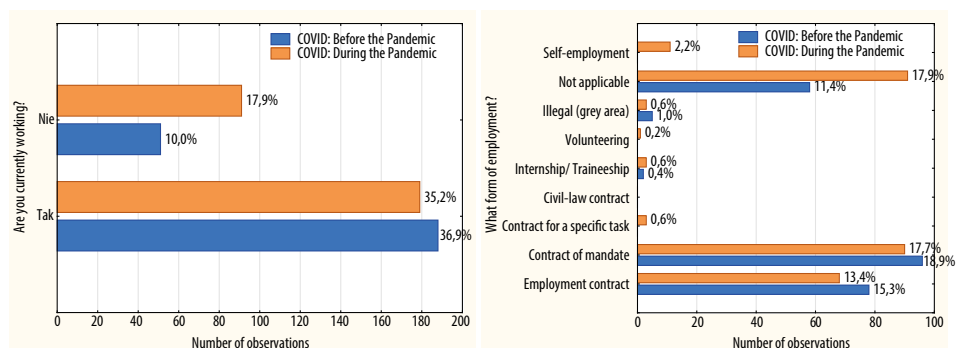


Figure 5.4. Respondents' current work situation

Source: Own elaboration based on empirical results.

5.4. Findings

During their studies, young people often encounter the job market for the first time, where there are many offers aimed specifically at students. Some industries and professions are almost entirely based on the employment of students. The Polish labour market offers many opportunities for young people, and finding a job, even a casual one, is not particularly difficult in large academic centres. At the same time, purely economic emigration is widely present in Polish society, which, in the case of students, is mainly limited to short trips during the summer holidays (up to 4 months), so that the money earned can be used for living during the academic year. We can also observe an increased interest in running a business, which manifests itself, for example, in the growing popularity of business incubators. This shows that students want to be active and develop in this direction, and undoubtedly they are a significant group with a huge economic and entrepreneurial potential (NZZ, 2017, pp. 4–5). In recent years, students' behaviour and plans have also been strongly influenced by the pandemic situation, which has caused huge changes not only in local labour markets, but also in the global market.

Based on the above reflections, the purpose of the study was defined as presenting the significance of the coronavirus pandemic in the context of starting a business, by business students. At each stage of the research (before and during the pandemic), respondents were asked to answer a series of questions about their situation and work experience, as well as their plans for starting a business. This allowed conclusions to be drawn about the impact of the pandemic on young people's business prospects.

First, respondents were asked to identify how they envision their professional future. It can be observed that before the pandemic, the predominant desire was to work in private enterprise (24.4%). Own business was desired by 16.1% of the

respondents. Other career plans or lack thereof were marked by only less than 7% of the respondents. An interesting situation occurred during the second stage of the research, where the number of people planning to work in a private enterprise significantly decreased (by about 8 percentage points). The largest increase was noted among those planning to start their own business (by about 8 percentage points), but also increased the percentage of responses in other groups, i.e. among people planning to work in a public company, family business, abroad, as well as without any professional plans.

The desire to look for a more stable job, in the public sector or a family business, is understandable. Of particular interest, however, is the shift in optics from working for a private company, to running one's own business. Despite the fact that in theory those who run their own business bear the greatest risk, the pandemic situation has shown that private enterprises, flexibly adapting to changing economic conditions, as well as lack of demand and imposed legal restrictions, look primarily for opportunities to reduce operating costs, including personnel costs. Students noted that when running their own business, they often have more security than when working in a private enterprise—they have the opportunity to benefit from assistance of various nature. In addition, the pandemic has caused major changes in global markets, resulting, on the one hand, in the collapse of many companies or a change in their operating strategies, but, on the other hand, in the emergence of new gaps and lucrative sectors where there is a high demand for specialized products or services. Details of the respondents' career plans are shown in Figure 5.5.

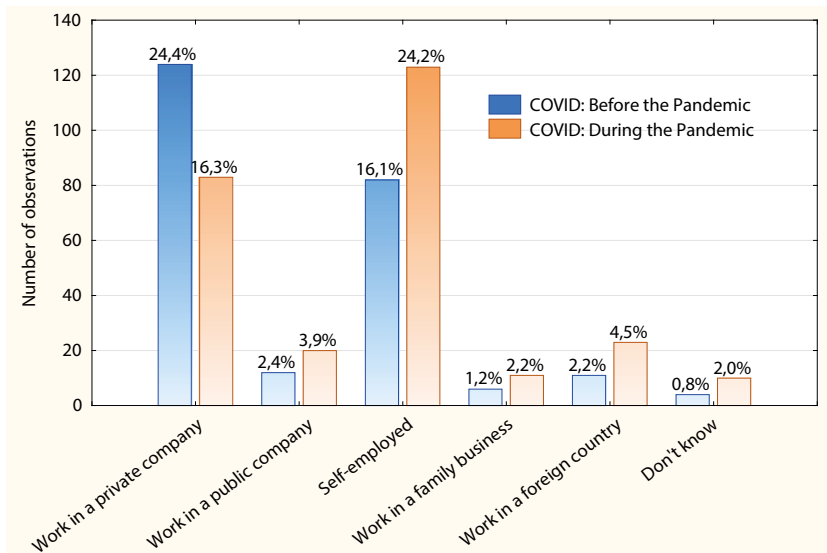


Figure 5.5. Distribution of responses regarding respondents' career plans

Source: Own elaboration based on empirical results.

Respondents were then asked to identify the profile of activities related to their future professional work. Both before and during the pandemic, services clearly dominated (28.9% and 27.5%, respectively). It is worth noting, however, that the pandemic resulted in a significant increase in the share of trade (by less than 7 percentage points), while the share of services and manufacturing decreased (by 1.4 and 1.1 percentage points, respectively). This probably has to do with the high flexibility of this type of activity, the relative ease of changing the sector of activity, and the fact that trade was relatively little affected by the regulatory tightening. Detailed data, including the structure of responses, are shown in Figure 5.6.

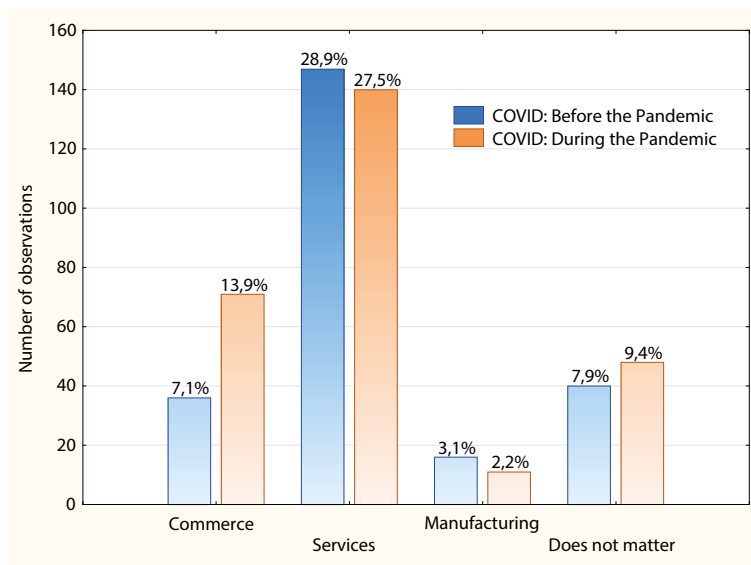


Figure 5.6. Distribution of responses regarding planned work-related activity profile

Source: Own elaboration based on empirical results.

The respondents were then given the opportunity to respond to a question about their plans for starting their own business. At this point it is also worth mentioning that out of more than 500 people participating in the survey, 30 already have experience in running a business. Both before and during the pandemic, responses indicating a desire to start their own business (definitely yes and rather yes) predominated. The pandemic significantly increased the proportion of “definitely yes” responses by 62% and “rather yes” by 23%, which is consistent with the results of previous questions. Detailed data are shown in Figure 5.7.

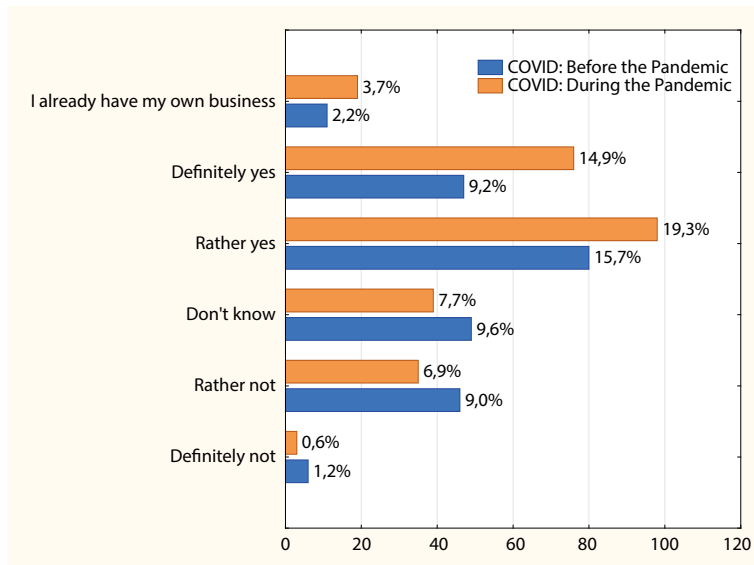


Figure 5.7. Distribution of responses regarding desire to start your own business

Source: Own elaboration based on empirical results.

The next question was designed to elaborate on the conclusions of the previous question—respondents could specify within what time frame they planned to start a business (if any). Both before and during the pandemic, the predominant intention was to open a business in more than two years, which was mainly due to the desire to complete the study first and acquire the necessary knowledge and experience. The differences in the shares of individual responses in this case were not due to the pandemic situation, but rather to the age of the respondents and the year and degree of study. Detailed data are shown in Figure 5.8.

Finally, respondents were asked to identify whether they already had an idea for their own business. Both before and during the pandemic, affirmative answers dominated (among those planning to start their own business). It is particularly interesting to note that in the surveys conducted during the pandemic, the percentage of “definitely yes” answers was 63% higher and “rather yes” 49% higher compared to the pre-pandemic stage. At the same time, it should be emphasized that the second stage of the research was dominated by younger people, in the earlier years of study, which only confirms that students take their future business seriously and its plans are well thought out. Detailed data on the structure of responses are shown in Figure 5.9.

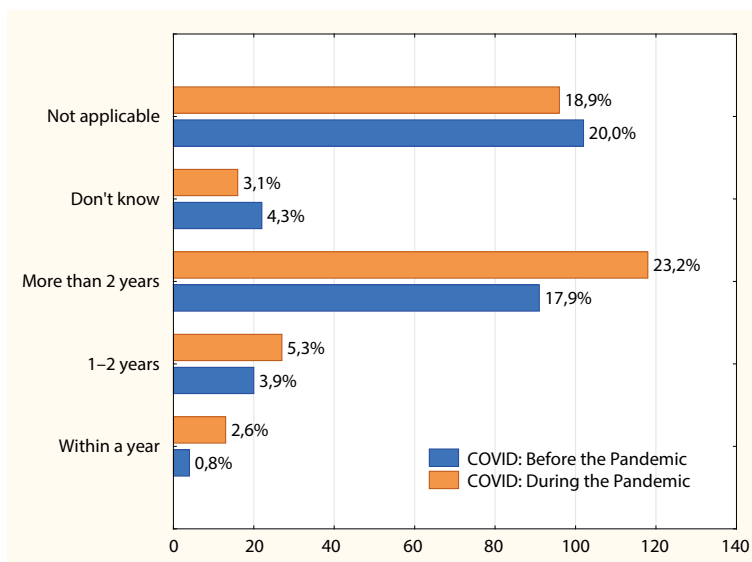


Figure 5.8. Distribution of responses regarding when to possibly start your own business

Source: Own elaboration based on empirical results.

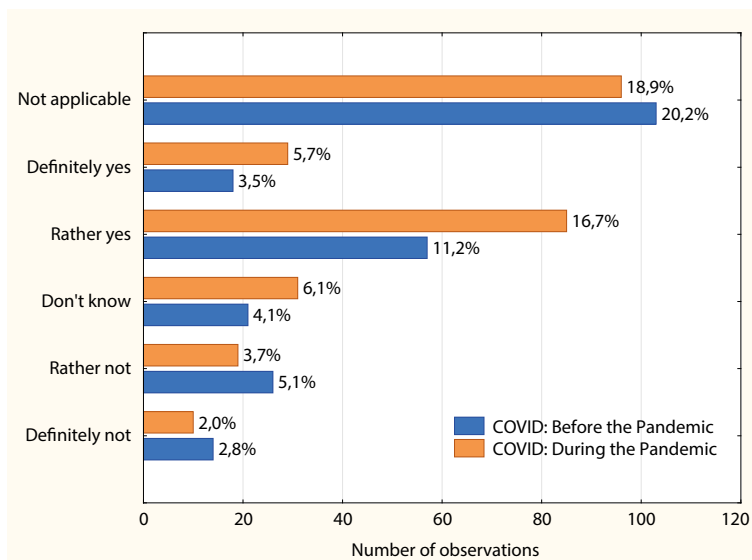


Figure 5.9. Distribution of responses regarding having an idea for a business

Source: Own elaboration based on empirical results.

As the research has shown, interest in setting up one's own business has increased over the years studied. Therefore, the research was deepened, where students were asked about the motives that lead them to set up their own business.

To this end, 14 factors encouraging self-employment were identified. Based on the analysis of literature and own experience, the following variables were identified:

- possibility of high earnings,
- good business idea,
- sense of independence,
- lack of other alternatives,
- social prestige,
- possibility of self-employment,
- possibility of obtaining financial support,
- flexible working hours,
- self-employment,
- the opportunity to realise your own goals and dreams,
- job security,
- results dependent on your efforts,
- freedom to choose your working conditions,
- no monotony of work.

The basic statistical analysis of all variables in terms of their significance did not allow a clear and exhaustive evaluation and interpretation. Many of the variables had a similar cognitive load and showed significant correlation. As a result, the resulting picture of the phenomenon was unclear and chaotic. It was therefore necessary to deepen the analysis. For this purpose, a factor analysis was used, the results of which are presented in Table 5.1.

Factor analysis made it possible to isolate 5 main factors explaining almost 55% of the variance of the studied problem. The first mega-factor, explaining less than 17% of the variance of the problem consisted of one variable, i.e. the possibility of obtaining funding. So it is related to external support and so it was also named. For the second factor three variables were assigned: self-employment the possibility of realizing your own goals and dreams and the effects depending on your work effort. The combination of these variables relates the direct translation of the time and effort involved to the results obtained, therefore it was called effort = results and explained more than 12% of the analyzed phenomenon. The third mega-factor was called financial independence, as it contained two variables (possibility of high earnings and sense of independence) and the degree of explained variance was more than 10%. Within the fourth mega-factor, which should be called business idea, only one variable was identified which explained

Table 5.1. Factor loadings matrix after Varimax rotation for motives to start a business

Motives	Factor 1	Factor 2	Factor 3	Factor 4	Factor 5
	External support	Effort = Effect	Financial independence	Business idea	Prestige
Possibility of high earnings	0,07	0,01	0,73	-0,07	-0,02
Good business idea	-0,01	0,01	0,07	0,89	0,03
Sense of independence	-0,04	0,05	0,69	0,26	0,05
Lack of other alternatives	0,52	-0,17	0,30	-0,02	0,37
Social prestige	0,30	-0,17	0,12	0,09	0,68
Possibility of self-employment	0,27	-0,01	-0,10	-0,09	0,63
Possibility of obtaining financial support	0,68	0,18	0,12	-0,19	0,02
Flexible working hours	0,58	0,18	-0,20	0,30	0,11
Self-employment	0,12	0,76	0,00	0,00	0,01
The opportunity to realise your own goals and dreams	0,18	0,67	-0,03	0,29	-0,12
Job security	0,46	0,28	-0,19	0,09	0,15
Results dependent on your efforts	-0,05	0,67	0,09	-0,20	0,08
Freedom to choose your working conditions	-0,22	0,35	0,31	-0,11	0,56
No monotony of work	-0,14	0,10	-0,26	0,19	0,60
Percentage share of explanation of variance	1,57	1,81	1,40	1,19	1,73
Cumulative percentage of explanation of variance	0,11	0,13	0,10	0,08	0,12
Eigenvalues	2,34	1,69	1,40	1,16	1,11

Legend: Charges of ≥ 0.65 are indicated.

Source: Own elaboration based on empirical data.

about 8%. Also, the last main factor accounted for less than 8% of the variance and was identified as prestige.

Conclusions

Student entrepreneurship is an important aspect as considered from academic, teaching and business perspectives. During their studies, young people gain their first work experience and form their skills and competencies for running their own business. However, it is worth noting that the coronavirus pandemic has significantly affected both the labour market and business prospects. In this context, it was important to conduct a study that answered the question of how the coronavirus pandemic affected students' career plans and whose purpose was to present

the importance of the coronavirus pandemic in the context of business start-ups among business students.

A number of interesting conclusions can be drawn from the research. First of all, the pandemic has significantly affected students' career plans. Although the desire to stabilize employment through employment in the public sector can be seen, above all, a significant increase in interest in starting their own business can be observed, while interest in working in the private sector has decreased. The pandemic has also affected the preferred profile of future professional activity—students think above all about flexibility and ease of adaptation to changing conditions in the environment. It can also be noted that plans to start a business have become more concrete. There has been a clear increase in the percentage of those who have an idea for their business. It is noteworthy that among the main motives that induce students to start a business were: external support, effort = effect, financial independence, business idea, prestige. This shows the high ambitions of young people, who see in their own business the possibility of becoming independent and achieving results proportional to the resources involved. Moreover, widely available external sources of financing help in taking the decision to start a business. Not without significance is also the social position, which is connected with running a business.

Therefore, if research in this area is to be continued, it would be appropriate to focus primarily on the question of what factors most influence young people's willingness to start businesses and how entrepreneurial attitudes can be shaped among students.

References

- Bąkowski, A., Zasiadły, K., & Guliński, J. (red.). (2005). *Innowacyjna przedsiębiorczość akademicka – światowe doświadczenia*. Warszawa: Polska Agencja Rozwoju Przedsiębiorczości.
- Borowiec, A. (2011). Badanie postaw przedsiębiorczych związanych z zakładaniem mikroprzedsiębiorstw w Polsce wśród studentów kierunków ekonomicznych. *Zeszyty Naukowe Uniwersytetu Szczecińskiego. Ekonomiczne Problemy Usług*, 63, 40–48.
- Budyldina, N. (2018). Entrepreneurial universities and regional contribution. *International Entrepreneurship and Management Journal*, 14(2), 265–277. <https://doi.org/10.1007/s11365-018-0500-0>
- Klonowska-Matynia, M., & Palinkiewicz, J. (2013). Przedsiębiorczość w teorii ekonomicznej. *Zeszyty Naukowe Wydziału Nauk Ekonomicznych Politechniki Koszalińskiej*, 17, 29–40.
- Komarnicka, A. (2020). *Przedsiębiorczość akademicka w Polsce / stan, uwarunkowania i perspektywy rozwoju*. Bydgoszcz: Wydawnictwa Uczelniane Uniwersytetu Technologiczno-Przyrodniczego.

- Kumański, M. (2016). Przedsiębiorczość akademicka, czyli koncepcja spółek typu spin off. *Journal of Modern Management Process*, 1(1), 89–97.
- Matusiak, K. (2006). *Rozwój systemów wsparcia przedsiębiorczości: Przesłanki, polityka, instytucje*. Radom–Łódź: Instytut Technologii Eksploatacji.
- Matusiak, K. (2009). Kierunki dyskusji nad przedsiębiorczością akademicką w Polsce i na świecie. In G. Banerski, A. Gryzik, K. Matusiak & M. Mażewska (red.), *Przedsiębiorczość akademicka (rozwoj firm spin-off, spin-out) – zapotrzebowanie na szkolenia służące jej rozwojowi. Raport z badania* (pp. 29–40). Warszawa: PARP. <https://doi.org/10.13140/RG.2.2.11799.32167>
- Matusiak, K., & Matusiak, M. (2007). Pojęcie i ekonomiczne znaczenie przedsiębiorczości akademickiej. *Zeszyty Naukowe Uniwersytetu Szczecińskiego*, 453, *Ekonomiczne Problemy Usług*, 8, 155–165.
- Meoli, M., & Vismara, S. (2016). University support and the creation of technology and non-technology academic spin-offs. *Small Business Economics*, 47(2), 345–362.
- Micozzi, A. (2020). *The entrepreneurial dynamics in Italy: A focus on academic spin-offs*. Cham: Springer International Publishing. <https://doi.org/10.1007/978-3-030-55183-4>
- Misiak-Kwit, S., & Zhang, Y. (2022). Entrepreneurial attitude of students—comparative study between China and Poland. *Entrepreneurship and Sustainability Issues*, 9(3), 118–133. [https://doi.org/10.9770/jesi.2022.9.3\(8\)](https://doi.org/10.9770/jesi.2022.9.3(8))
- Nowak, D. (2011). Przedsiębiorczość małych przedsiębiorstw w procesie kooperacji. *Zeszyty Naukowe Uniwersytetu Ekonomicznego w Poznaniu*, 193, 45–62.
- Nowak, D., & Wściubiak, L. (2020). Rola Olimpiady Przedsiębiorczości w edukacji – próba oceny założeń tematycznych. *Przedsiębiorczość – Edukacja*, 16. <https://doi.org/10.24917/20833296.161.13>
- NZS. (2017). *Przedsiębiorczość wśród polskich studentów*. Warszawa: Centrum Analiz Niezależnego Zrzeszenia Studentów.
- Piech, K. (2010). Przedsiębiorczość akademicka – bariery i szanse rozwoju. In *Warszawa potencjałem innowacji. Poradnik innowacyjnego przedsiębiorcy. Analiza potencjału innowacyjnego Warszawy* (pp. 36–48). Warszawa: Miasto st. Warszawa.
- Poznańska, K. (2014). Przedsiębiorczość akademicka: Cechy i znaczenie w gospodarce światowej i polskiej. *Studia Ekonomiczne / Uniwersytet Ekonomiczny w Katowicach*, 183(2), 164–172.
- Prochorowicz, M. (2009). Czynniki kształtujące przedsiębiorczość akademicką. Wyniki badań. *Folia Pomeranae Universitatis Technologiae Stetinensis. Oeconomica*, 55. Retrieved from <http://agro.icm.edu.pl/agro/element/bwmeta1.element.dl-catalog-159c895e-cc01-4308-acd7-651c368beaf9>
- Stawasz, E. (2007). Stymulowanie przedsiębiorczości środowiska naukowego w Polsce. *Zeszyty Naukowe Uniwersytetu Szczecińskiego*, 453, *Ekonomiczne Problemy Usług*, 8, 265–276.
- Szara, K., & Pierścieniak, A. (2011). *Przedsiębiorczość akademicka*. Rzeszów: Wydawnictwo Uniwersytetu Rzeszowskiego.