DOI: 10.5281/zenodo.5567035

CASE STUDY ON ENTREPRENEURIAL TRAINING NEEDS AMONG STUDENTS

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Abstract: *This article presents the results of a sociological survey based on a questionnaire conducted to find out the needs, attitudes and opinions of students of the University of Medicine and Pharmacy of Craiova, Romania, and their willingness to start a business. Considering the specific profile of the target group, consisting of students of the University of Medicine and Pharmacy of Craiova, within the Faculty of Medical Assistance, the Faculty of Dentistry and the Faculty of Pharmacy, respectively students pursuing long-term master's studies and PhD, a special emphasis was placed on the formulation of interrogative items on the development of entrepreneurship in the Health and Pharmaceuticals sector, an area recognized by the ,,National Strategy for Competitiveness 2015-2020" as one with significant competitive potential. The research group consisted of 747 subjects.*

Keywords: *new companies' formation, entrepreneurship, student entrepreneurship, health entrepreneurship*
Jel Classification: *C44, C88, I23*

1. Context

In the elaboration of the study, the National Strategy for Competitiveness 2015-2020 was taken into account, which identifies 10 sectors with competitive potential, which correlate with the areas of smart specialization identified by the National Strategy for Research, Development and Innovation 2014-2020.

These fields, which were taken into account in the elaboration of the present research tools, are: tourism and ecotourism; textiles and leather; wood and furniture; creative industries; automotive and components industry; information and communication technology; food and beverage processing; health and pharmaceuticals; energy and environmental management; bioeconomy (agriculture, forestry, fisheries and aquaculture), biopharmaceuticals, biotechnologies.

The vision of the National Strategy for Competitiveness 2015-2020 starts from the following premises:

- Capitalizing on the best advantages available to Romania, the top specializations in production and research, as well as local qualification resources, entrepreneurial initiative and natural factors;
- Increasing the attractiveness of the conditions for the competitive development of business through transparent and stimulating regulations for innovation;
- Formulation of public policy directions around initiatives and achievements with major impact on creating added value in the business environment;
- Correlation of development initiatives at sectoral, territorial and societal level for efficient and integrated training of competitive advantages.

One of the priorities of the National Competitiveness Strategy 2015-2020 aims to improve the regulatory environment. In this regard, important steps have been taken by adopting measures to reduce taxation, through the Law of the Fiscal Code:

- Extending the application of the reinvested tax exemption in the production / acquisition of electronic computers and peripheral equipment, machines and household appliances, control, invoicing, as well as in computer programs;
- Reduction of the dividend tax rate from 16% to 5% starting with January 1, 2017, for dividends distributed between Romanian legal entities, as well as for persons resident in the European Union and states with which Romania has concluded double taxation agreements;
- Reduction of the tax rate for incomes obtained by individuals in the form of dividends, including income obtained as a result of holding shares defined by the relevant legislation in collective investment undertakings, to 5% of their amount, starting with January 1, 2017 ;
- Reduction of the standard VAT rate to 20% from 1 January 2016 and to 19% from 1 January 2017.

- The Strategy also aimed to support factors and support services. In this regard, the promotion of the enterprises' own research and development and innovation activities was considered, including by promoting support measures financed from national and European funds. It also aims to develop, especially in the fields of intelligent specialization, integrated structures that bring together companies and research organizations with a similar and / or complementary profile. The strategy also aimed at promoting the 10 economic sectors with competitive potential (mentioned above) and ensuring foundations in the field of education, adapted to today's society, through objectives such as: monitoring compulsory education based on a standard of skills generated by international experiences, implementation a flexible and innovative system in education, fostering intellectual openness to the values of contemporary civilization and creating bridges with the diaspora through sustainable cooperation mechanisms - opportunities for professional affirmation.

We also mention that this research was undertaken within the „Innotech student 2020" program. This is an entrepreneurship program that provides funding for entrepreneurial schemes of students who want to open a small business in Romania. The program is funded by the Human Capital Operational Program (POCU) 2014-2020, Priority Axis 6 - Education and skills, Thematic objective 10: Making investments in education, training and vocational training in order to acquire skills and learning throughout life.

2. Research methodology

2.1. The purpose or general objective of the research: to know the needs, attitudes and opinions of the students of the University of Medicine and Pharmacy from Craiova, as well as their availability to start a business.

2.2. Target group: students of the University of Medicine and Pharmacy of Craiova

2.3. The way the data was collected: online

2.4. The period in which the questionnaires were applied: 12.08.2020 - 29.08.2020

2.5. Number of completed questionnaires: 748

2.6. Number of validated questionnaires: 747 (a questionnaire was not taken into account due to the fact that the respondent did not give his consent to the processing of the data provided.) We also mention that the items that succeed the filter question Would you like to open your own business in the

field What specialization will you obtain after completing your studies ?, only the respondents who answered "Yes" to this question have in mind, so a total of 569 students

2. 7. Research limits:

- the accuracy of the information was affected due to the way the information was collected online (answers to the questionnaires);
- the questionnaires were not applied to a representative sample, they were answered by students who had access to information on the application of the questionnaire;
- a precoding of the answers was performed, considering their heterogeneous character;
- limitations regarding the elaboration of the online questionnaire imposed by the conditions of the Google Forms platform.

3. The structure of the investigated group

Table 1. Batch structure depending on the area of residence

Residence	Answers	
	%	Number of respondents
Urban	79,4%	593
Rural	20,6%	154
TOTAL	100%	747

We find from table 1 that most of the students participating in the survey come from urban areas (79.4%). Only 20.6% live in rural areas. Promoting entrepreneurship is essential in both types of communities, rural and urban.

Table 2. Batch structure according to age category

Age category	Answers	
	%	Number of respondents
Under 25 years old	67,3%	503
25-54 years	32,7%	244
TOTAL	100%	747

Naturally, most students are young: 67.3% of them have 67.3%. At the same time, 32.7% are between 25 and 54 years old. Therefore, the conclusions of the research take into account young people, who attend the courses of a higher education institution with a medical profile.

Table 3. Batch structure by gender

Gender	Answers	
	%	Number of respondents
Female	77,4%	578
Male	22,6%	169
TOTAL	100%	747

The predominance of the female gender at the level of the investigated group is noteworthy, which represents 77.4%. On the other hand, male students are represented in proportion of 22.6%.

Table 4. Batch structure according to the year of study

What college year (master's, doctorate or postdoctoral) are you currently in?	Answers	
	%	Number of respondents
Year I	8%	60
Year II	19%	142
Year III	17,1%	128
Year IV	22,6%	169
Year V	16,2%	121
Year VI	16,3%	122
Another	0,5%	5
TOTAL	100%	747

We find that the distribution of the research group according to the year of study largely respects the distribution of the statistical population, in the sense that most students are from the middle years. Most of them are enrolled in year IV (22.6%), and the fewest (8%) in year I.

Table 5. The structure of the group according to the year of specialization obtained after completing the studies

The specialization (title) that you will obtain after graduating:	**Answers**	
	%	Number of respondents
Dentist	55,2%	413
Nurse	14,6%	109
chemist	13,8%	103
Dental technician	11,1%	83
Doctor of Medical Sciences	1,6%	12
Doctor other specialties	1,6%	12
Physiotherapist	1,1%	10
Other	0,8%	5
TOTAL	100%	747

Regarding the degree that students will obtain after graduation, the majority (55.2%) will obtain the necessary qualification to practice the profession of dentist. The next profession in the ranking is that of nurse, a field for which 14.6% of students in the research group are prepared.

4. Presentation of results

Table 6. Willingness of students to open their own business after graduation

Would you like to open your own business in the field of specialization that you will obtain after completing your studies?	**Answers**	
	%	Number of respondents
Yes	76,2%	569
No	15,1%	113
DK / DA	8,7%	65
TOTAL	100%	747

The largest share of students surveyed (76.2%) are interested in opening a business after graduation. The percentage is encouraging and highlights the importance of projects and programs to encourage entrepreneurship among this category of the population. Next, we set out to highlight the resources that students have at their disposal, namely their needs in terms of starting a business.

Table 7. Respondents' perception of the current level of information on the benefits of participation

In your opinion, is there currently enough information on the benefits of participating in entrepreneurial training activities?	**Answers**	
	%	Number of respondents
Yes	30,5%	174
No	63%	359
DK / DA	6,3%	36
TOTAL	100%	569

Worryingly, most respondents, 63%, believe that there is insufficient information on the benefits of participating in entrepreneurship training. This finding draws attention to the need for information programs for students on training opportunities in entrepreneurship, especially in view of their willingness to start businesses in the fields in which they have specialized.

Table 8. The importance that students attach to the various aspects of starting a business

In your opinion, what action do you consider a priority to support students / masters / doctoral students in opening their own business?						
	Very important	Important enough	Somewhat important	Unimportant	The least important	TOTAL
Information and awareness campaigns	41,5% (236)	14,2% (81)	18,8% (102)	17,9% (87)	11,1% (63)	100% (569)
Vocational training in entrepreneurship	42,2% (240)	18,3% (104)	14,6% (83)	15,1% (86)	9,8% (56)	100% (569)
(acquisition of theoretical knowledge)	54,3% (309)	9,3% (53)	13,5% (77)	15,1% (86)	7,7% (44)	100% (569)
Counseling in the development of entrepreneurial skills	52,2% (297)	12,3% (70)	12,1% (69)	14,9% (85)	8,4% (48)	100% (569)

Among the aspects related to starting a business, the most important aspect evoked by the respondents is counseling in the development of entrepreneurial skills (practical applications of entrepreneurship under the

coordination of a specialist), which 54.3% consider very important. At the same time, if we add the weight of the "very important" and "important" options for the option "entrepreneurship consulting and receiving grants", we get 64.5%. Both aspects lead to the same conclusion, namely the need to expand counseling and guidance programs. At the same time, 42.2% of respondents consider vocational training in entrepreneurship (acquisition of theoretical knowledge) to be very important.

Table 9. The degree of adequacy of the financial resources available to support the student, regarding the chance of starting his own business

Currently, how do you assess the financial resources available to support the student, regarding the chance of starting his own business, after completing his studies?	**Answers**	
	%	Number of respondents
Sufficient	15,3%	87
Insufficient	78,9%	449
DK/DA	5,8%	33
TOTAL	100%	569

We note that the vast majority of respondents, respectively 78.9%, assess as insufficient the financial resources available to support the student to start their own business. Only 15.3% appreciate these resources as sufficient.

Table 10. Share of students who participated in a vocational training course in entrepreneurship (in the last 3 years)

Have you participated in a professional training course in entrepreneurship (in the last 3 years)?	**Answers**	
	%	Number of respondents
Yes	14,2%	81
No	85,1%	484
DK / DA	0,7%	4
TOTAL	100%	569

The share of students who, in the last 2 years, have participated in a vocational training course in the field of entrepreneurship is relatively small: only 14.2% attended such courses during the mentioned period. Next, we were

interested in identifying the degree of availability of students regarding the attendance of vocational training programs in the entrepreneurial field.

Table 11. Willingness of students to participate in a free training course in entrepreneurship

Would you like to attend a free training course in entrepreneurship?	**Answers**	
	%	Number of respondents
Yes	92,8%	528
No	4,6%	26
DK / DA	2,6%	15
TOTAL	100%	569

The vast majority of survey participants (92.8%) are interested in participating in a free training course in entrepreneurship, which is in line with previous conclusions. Only 4.6% of them are not interested in attending such a course, while 2.6% are undecided.

Table 12. Identifying the needs of vocational training students in the field of entrepreneurship

Please express your opinion on your need for professional training in entrepreneurship:	**Answers**	
	%	Number of mentions
Acquiring skills to develop a business plan	32,1%	394
Development of useful personal skills (communication, teamwork)	24,8%	305
Access to modern alternative methods of continuous training in the field of entrepreneurship	22,1%	271
Improving the level of skills in entrepreneurship	21%	258
TOTAL	100%	1228

Respondents were able to opt for several answer options (multiple choice question). The table shows the total evocations for each response variant. We note that the most frequently mentioned need refers to the acquisition of skills for developing a business plan, which was mentioned by no less than 394 of the students surveyed. This is followed by the development of useful personal skills (communication, teamwork), a variant selected by 305 of them. Therefore, entrepreneurship courses are needed for students to build on the

business design (business plan) and improve the qualities, skills and personal abilities that students need to become good entrepreneurs.

Table 13. The usefulness of entrepreneurial training courses felt by students

To what extent do you consider that participating in and graduating from an entrepreneurship training course will help you in developing a business plan for setting up a business in the field of your specialization?	**Answers**	
	%	Number of respondents
To a very large extent	41,1%	233
Largely	40,2%	229
To some extent	17%	98
To a small extent	1,2%	7
To a very small extent	0,4%	2
TOTAL	100%	569

The surveyed students consider to a large extent (41.1%) and to a large extent (40.2%) that participating in an entrepreneurial training course would help them to properly develop a business plan for setting up a business in the field of who specializes. Only 9 students do not see the usefulness of such an initiative.

Table 14. Areas of smart specialization in which students want to open businesses

In which areas of smart specialization would you like to start a business?	**Answers**	
	%	Număr de mentions
Health and pharmaceuticals	71,4%	508
Creative industries	5,8%	41
Tourism and ecotourism	4,8%	34
Information and communication technology	4,1%	29
Bioeconomics (agriculture, forestry, fisheries and aquaculture), biopharmaceuticals and biotechnologies.	3,7%	26
Energy and environmental management	3,2%	23

Food and beverage processing	2,7%	19
Construction	2,4%	17
Automotive and components industry	2%	14
TOTAL	100%	711

And in this case, the respondents could opt for several answer options (multiple choice question). The table shows the total evocations for each response variant. We also mention that, in formulating the item, we took into account the areas of smart specialization mentioned in the National Strategy for Competitiveness. Given the specific profile of students - training in the medical field - the vast majority of survey participants are interested in opening a business in the field of health and pharmaceuticals (71.4% of evocations, equivalent to 508 responses).

Table 15. Business initiatives in the field of health and pharmaceuticals

If you want to start a business in the field of health and pharmaceuticals, which of the following activities would you consider:	**Answers**	
	%	Number of mentions
Dentistry offices	61,3%	349
Polyclinic of dentistry	32,5%	185
Dental technique laboratory	23,4%	133
Pharmacy	13,4%	76
Radiology Service	14,8%	84
Medical recovery and rehabilitation center	8,1%	46
Another activity	6,7%	38
TOTAL	100%	569

Consistent with the structure of the exploratory group, where students from the Dentistry specialization predominate, most respondents are interested in opening offices in this sector of activity, mentioned by 61.3% of students. On the next position are the polyclinics, also in the field of dentistry (32.5%), followed by dental laboratories (23.4%).

We mention that, in this section, we presented in detail the data obtained for the most important items of the questionnaire. Correlations between them, but also other trends that are worth mentioning, will be presented in the conclusions and discussion section.

5. Conclusions and discussion

1. The vast majority of respondents (76.2%), respectively 569 students out of the 747 students who gave their consent to have their personal data processed, want to open a business in the field of specialization that they will obtain after completion of studies.

2. At the same time, more than half of the students surveyed (63%) believe that there is insufficient information on the benefits of participating in entrepreneurship training activities. Only 30.5% believe that there is enough information in this regard.

3. Among the actions designed to support students who want to start a business, counseling in the development of entrepreneurial skills was most often mentioned as the most important thing (53.4%).

4. Only 15.3% of the surveyed students who want to open a business believe that there are sufficient financial resources to support students, regarding the chance of starting their own business, after completing their studies. 78.9% state that the available resources are insufficient.

5. The vast majority of students surveyed (85.1%, respectively 484 out of 569) who want to start a business have not participated in a training course in entrepreneurship in the last 3 years. Most of them (92.8% and 528 respectively) expressed their willingness to participate in a free course in entrepreneurship.

6. Consistent with the answers given to the previous questions, 24.8% (305) of students who want to start a business consider it a priority to improve their entrepreneurial skills. At the same time, 32.1% (394) of them expressed the need to acquire new skills for developing a business plan.

7. Most surveyed students interested in starting a business believe that participating in and completing an entrepreneurship training course will help them greatly (41.1% and 233 respondents, respectively) and greatly (40.2%). , respectively 229 respondents) in the elaboration of a business plan, for the establishment of a business in the field in which they specialize.

8. Regarding the counties where students want to start businesses, the most frequently mentioned was Dolj county (391 respondents), followed, at a great distance, by Olt county (35 respondents), respectively Argeș (31) and Gorj (18).

9. Potential entrepreneurs feel very much the need for advice for developing and implementing a business plan, respectively for business management. 81.9% (466) of the surveyed students who want to start a business expressed this need.

10. Among the areas of smart specialization provided by the National Strategy for Competitiveness 2015-2020 and taken into account in this study, the most frequently mentioned was Health and pharmaceuticals, for which 71.4% (508) of respondents opted. At the same time, dental offices (61.3%) are the main type of business mentioned by the respondents who opted for this field. These are followed by dental polyclinics, with 32.5%.

11. Most of the subjects in the research group wishing to start a business (79.1% and 450 respondents, respectively) expressed their desire to get involved in the project and participate in a business plan competition, in the aim of obtaining funding, which demonstrates the increased interest of the target group, the innovative potential and the desire to get involved.

12. Most students who want to start a business live in urban areas (464). Only 105 students from rural areas said they were interested in starting a business.

13. The dominant age group among potential entrepreneurs is under 25 (396 of the 569 students interested in starting a business).

14. There is a high number of women (423) who want to start a business, in contrast to the relatively small number of men (146).

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