

# Global University Entrepreneurial Spirit Students' Survey 21'

## POLAND



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Note: This report shows the results that were obtained only in basic terms. You are invited to search for future scientific publications that will successively provide more detailed and advanced analyses of the collected data. We would like to thank the academics who were willing to encourage students to participate in the survey and certainly the students themselves.

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## INTRODUCTION

It is a truism to say that knowledge is currently the most significant factor that enables efficient and flexible allocation of resources that are used in the management process. Both research and development activities that are provided by research entities (research and scientific) of the public sector and those that belong to the private sector can be considered as a source of knowledge creation. The entities that are involved in knowledge production in the economy (at the national and regional level) are scientific entities and higher education institutions (universities) in the public sector as well as research and development centres in the private sector. Universities seem to play a special role in the knowledge production. There is a combination of educational, scientific and research activities, which is of particular importance in shaping entrepreneurial attitudes in students and graduates. The primary function of universities is to 'equip' the student (graduate) with the widest possible range of knowledge, indicate the directions of further development, develop students' analytical and creative skills. Moreover, this is where the combination of basic research and development work takes place. Universities act not only as research and development entities, but also to some extent as educational institutions, which is the last stage of education for students before entering the labour market. Therefore, universities are a place where the development of entrepreneurial activity takes place, which is expressed by starting a business, often even during the course of studies. It becomes particularly important to intensify the interaction of universities with the environment, which is dictated by the need to respond to the needs of business entities in terms of the demand for future experts – graduates. In this aspect, it becomes important not only to conduct classes that stimulate entrepreneurial attitudes during academic studies but also supporting classes (e.g. in the form of training, internships, additional classes) that can be conducted (e.g. with the support of practitioners of economy) in private entities, financial institutions, innovation and entrepreneurship centres. Such multidimensional touch with the reality of the market economy may positively affect the formation of entrepreneurial attitudes in students.

In the academic year 2020/21, there were 349 universities in Poland – 130 public and 219 non-public ones (Statistic Poland, 2021a). In the aforementioned academic year, there were 1,215.3 thousand students in Poland (0.9% increase in the number of students compared to the previous year). The majority of students, 58%, were women (Statistic Poland, 2021a). As many as

65.6% of students were full-time students and 34.4% were part-time students (Statistic Poland, 2021a). The most frequently selected fields of study included business, administration, law (22.3% of all students) and technology, industry, construction (14.8%, respectively). There were 6.9% of foreign students out of all students in Poland. Most foreign students came from Ukraine (45.4% of all foreigners), Belarus (11.5%) and India (3%) (Statistic Poland, 2021a).

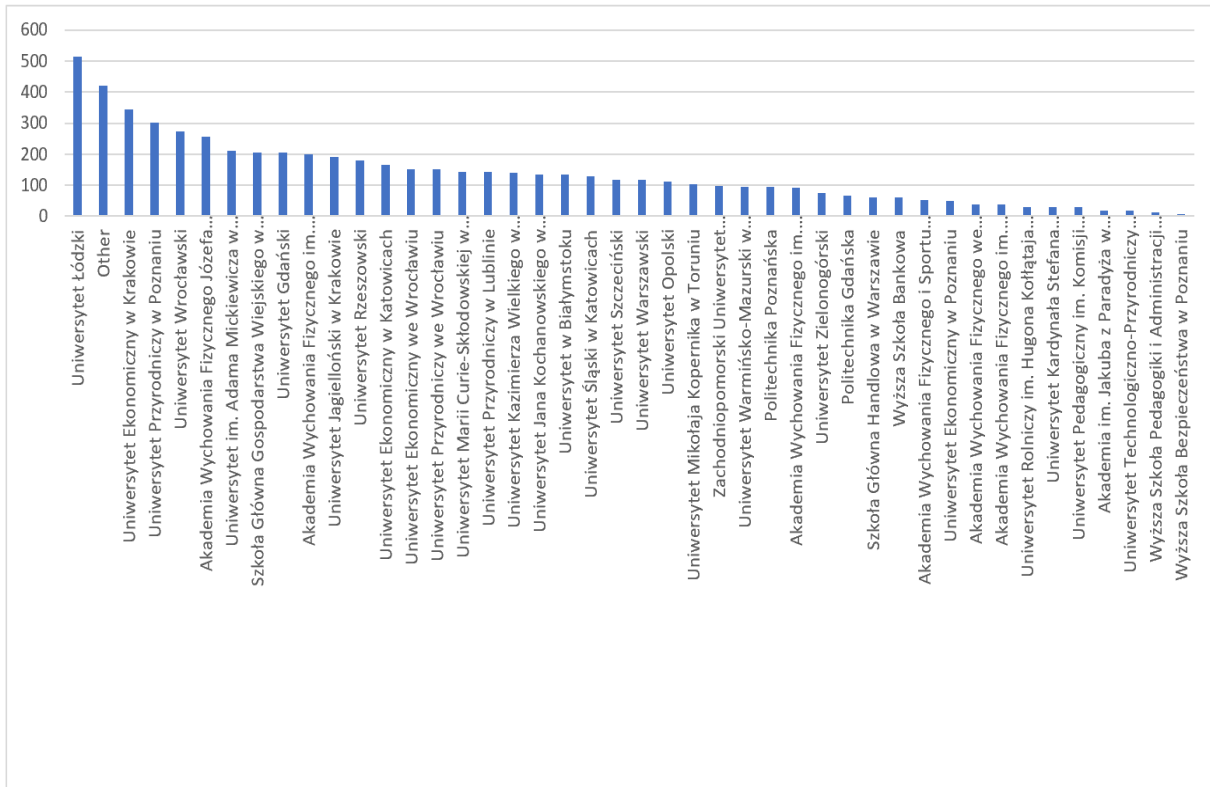
## **THE RESEARCH PROJECT GUESSS**

Entrepreneurship has long heralded as a panacea to the economic ills of nations. This is evidenced in the birthing of start-ups, spin-offs, mergers & acquisition, business paradigm shift as well as business model reengineering particularly in times of global crisis as in the current COVID-19 pandemic. As such, it is fundamental to gain insights into student entrepreneurship in Poland. The GUESSS Project (Global University Entrepreneurial Spirit Students' Survey) is dedicated to this mission since 2003. This report covers, students' entrepreneurial career choice intentions, their entrepreneurial activities and the underlying drivers and also highlights the implications of the COVID-19 pandemic.

## **RESULTS**

The GUESSS project spans across 58 countries with more than 267,000 students in 2021. In Poland, 6,012 students participated in the survey drawn from across 43 universities. Only completed surveys (in terms of specific questions from the questionnaire) were used in writing this report. The results revealed diverse participation from the distribution of participating universities, which shows that there is awareness of the GUESSS project in the Republic of Poland.

**Fig. 1. Students participating in the survey (by university)**



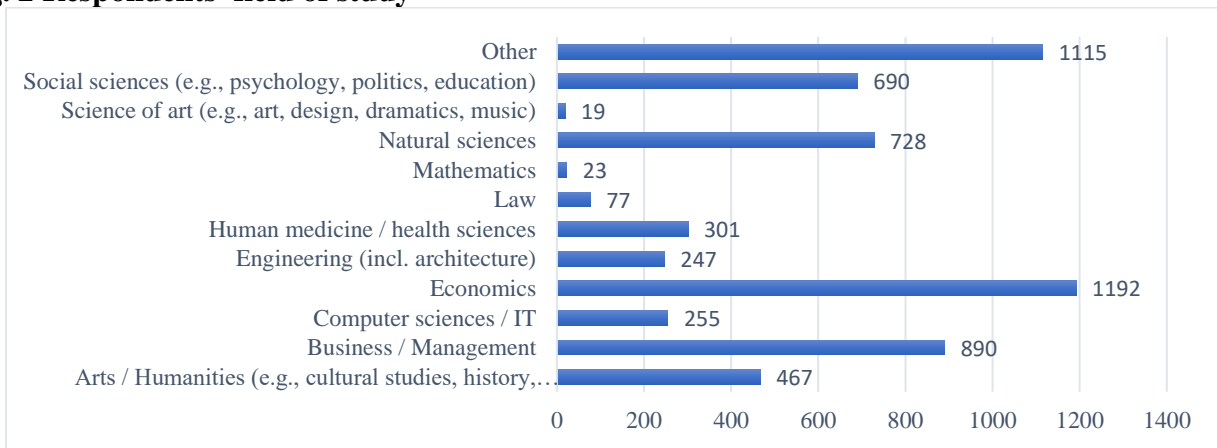
Source: Own elaboration

## 1. DEMOGRAPHIC INFORMATION OF SAMPLE (age, gender, marital status, nationality, level of studies, fields of study)

In total, 58% of the surveyed students were aged 18–22. In the surveyed group, there were 30.4% of male students and 68.4% of female students, which is similar to the gender distribution that is observed in the entire student population in Poland. 1.2% had their gender categorised as others implying that their gender is other than those of male or female. 87.40% of the student respondents were single, 4.46% of the student respondents were married and 8.15% of the student respondents were categorized as others. From the conducted research, the results of the nationality of the student respondents revealed that 96.52% of the respondents were Polish, 1.73% of the students were Ukrainian and 1.75% of the students had their nationality other than Polish and Ukrainian. More than half of the students are enrolled in an undergraduate (Bachelor level) program (3952), followed by students studying at graduate (Master level) (1719). 66 of the respondents are enrolled in a PhD program. 264 of the respondents are enrolled in other programs

MBA. The large number of students studying at the undergraduate level or graduate level should be seen in the affordability of diploma programs in Poland. Figure 2 illustrates the distribution of the aggregated fields of study. Approximately one third of the responding students are studying Economics (1192), followed by the category other courses order than the ones listed in the distribution (1115), Business/Management (890), Natural Sciences (728), Social Sciences (e.g. Psychology, Politics, Education) (690), Human Medicine/Health Sciences (301), Arts/Humanities (e.g. Cultural studies, History, Linguistics, Philosophy, Religion) (467), Computer Science/IT (255), Engineering (Inc. architecture) (247), Law (77), Mathematics (23), Science of art (e.g. art, design, dramatics, music) (19).

**Fig. 2 Respondents' field of study**



Source: Own elaboration

## 2. CAREER CHOICE INTENTIONS

### 2.1. Career choice intentions directly after and 5 years after graduation

The expressed intention to aspire either self-employment or employment directly after studies respectively five years after graduation can serve as a first indicator for the strength of an individual entrepreneurial attitude. Alumni studies show that the career goals expressed in student surveys are to a considerable extent out into practice.

Generally seen (Fig. 3), it can be stated that **directly after graduation** 1012 (16.8%) of the respondents want to be “a founder (entrepreneur) working in my own business”. Another 1047 of the respondents prefer to be “an employee in a small business (1-49 employees)”. 993 of the respondents prefer to be “an employee in a medium-sized business (50-249 employees)”, 811 of the respondents prefer to be “an employee in a large business (250 or more employees)”, 412 of

the respondents prefer to be “an employee in public service”, 363 of the respondents prefer an academic career path. 69 of the respondents prefer to be “an employee in a non-profit organization”. 90 of the respondents aim to take an already existing company (a successor in my parents’/family’s business). 21 of the students prefer to be “a successor in another business”. 1194 of the respondents preferred Other /do not know yet indicating that a larger proportion of the respondents either had other career intentions or do not yet know their most preferred career choice intentions.

However, **five years after** (Fig. 4), with more professional experience, the picture looks different (Fig. 4):

- 2071 (34.4%) of the respondents intend to found their own company 5 years after studies and 155 of the students are interested in taking over an existing company (84 respondents as a successor in parents’/family’s business, 71 respondents as a successor in another business not controlled by their family) as a career option. So, in total 2226 of the respondents see themselves as entrepreneurs after having acquired professional experience.
- The numbers of students who seek employment with in the private or public sector fluctuated (813 in large business - 250 or more employees), 649 respondents in medium-sized business (50-249 employees), 462 respondents in small business (1-49 employees), 370 respondents in public service, 328 respondents in the academia and 75 respondents in a non-profit organization.

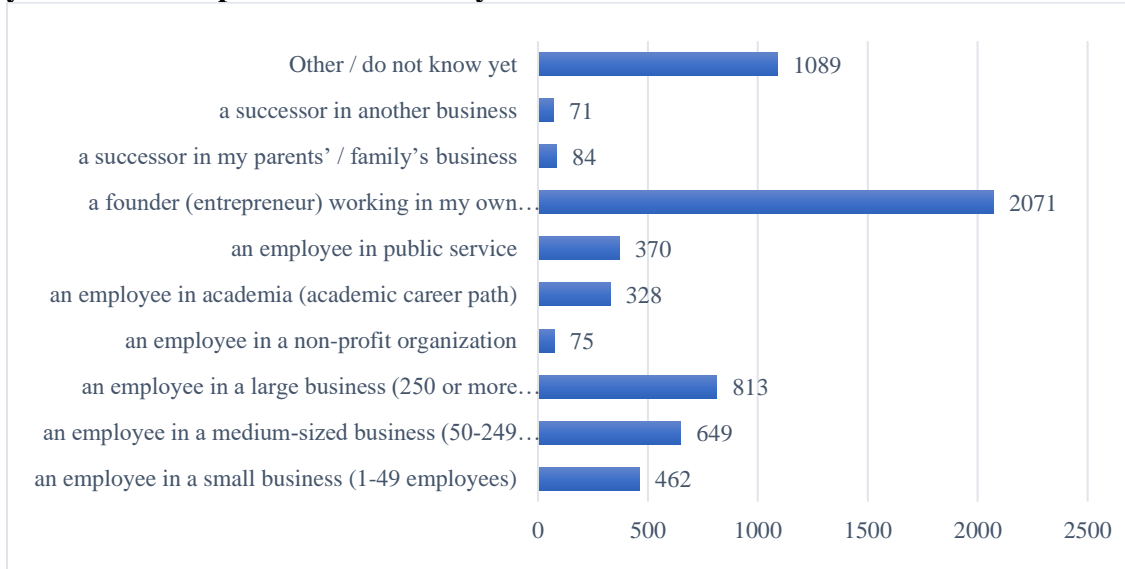
**Fig. 3 Respondents' career choice intentions directly after completion of university studies**



Source: Own elaboration



**Fig. 4. Distribution of answers to the question: Which career path are you going to pursue 5 years after completion of university studies?**



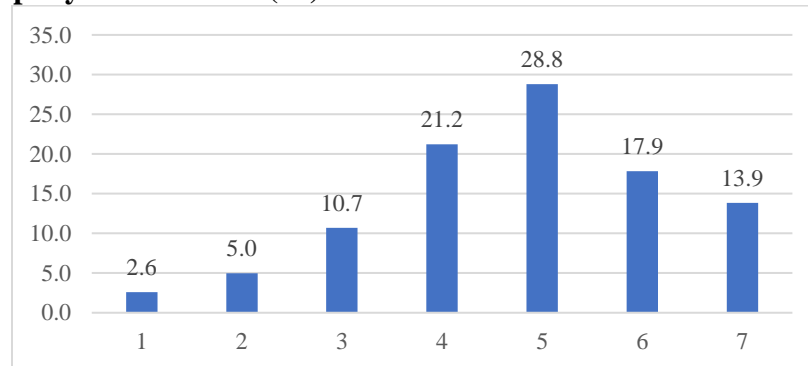
Source: Own elaboration

## 2.2 Share of Nascent and Active entrepreneurs

Only 7.2% of the respondents state that they are currently conducting business activity. The respondents' predispositions to start a business / to become self-employed were also analysed. 82.07% of the respondents gave a “NO” response as to “are you currently trying to start your own business/to become self-employed?”. A smaller percentage of the student respondents attested to “YES” with 17.93% when asked “are you currently trying to start your own business/to become self-employed?”. The result shows that a smaller percentage of the respondents are nascent entrepreneurs. Figure 5 shows the extent to which students are willing to take risks when choosing a job or a company to work for. Using a 7-point scale, 1728 of the student respondents gave a “1=not at all” rating which indicates that they are not willing to take risks when choosing a job or a company to work for. This response is closely followed by respondents with a “2 and 3” scale rating with responses suggesting that they disagree and somewhat disagree to take risks when choosing a job or a company to work for. Their responses had values of 298 and 642 respectively. On a neutral level, 1274 of the respondents neither agreed nor disagree that they are willing to take risks when choosing a job or a company to work for. The proportion of this respondents represents a category of students that are indifferent as to whether or not they should take risks when choosing a job or a company to work for. More so, 1728 respondents somewhat agreed with a “5” rating “to

the extent to which students are willing to take risks when choosing a job or a company to work for”. Still, 1071 respondents agreed with a “6” rating “to the extent to which students are willing to take risks when choosing a job or a company to work for “Finally, 831 respondents very much agreed with a “7” rating “to the extent to which students are willing to take risks when choosing a job or a company to work for”.

**Fig. 5. Distribution of answers to the statement: I am willing to take risks when choosing a job or a company to work for\* (%).**

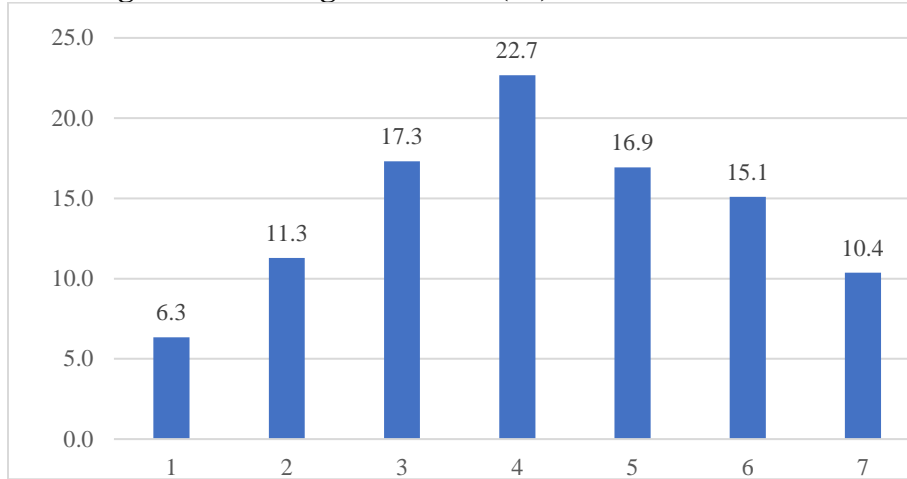


\*(1=not at all, 7=very much);

Source: Own elaboration

In addition, Figure 6 shows the extent to which students prefer a low risk/high security job over a job that offers. Using a 7-point scale, 377 of the student respondents gave a “1=not at all” rating which indicates their total dislike for prefer a low risk/high security job over a job that offers. This response is closely followed by respondents with a “2 and 3” scale rating with responses suggesting that they disagree and somewhat disagree with a low risk/high security job over a job that offers. Their responses had values of 671 and 1029 respectively. On a neutral level, 1348 of the respondents neither agreed nor disagree that they had preference for a low risk/high security job over a job that offers. The proportion of this respondents represents a category of students that are indifferent as to whether or not they should take a low risk/high security job over a job that offers. More so, 1006 respondents somewhat agreed with a “5” rating “a low risk/high security job over a job that offers”. Still, 898 respondents agreed with a “6” rating “to the extent to which students preferred a low risk/high security job over a job that offers “ Finally, 831 respondents very much agreed with a “7” rating “to the extent to which students preferred a low risk/high security job over a job that offers”.

**Fig. 6 Distribution of answers to the statement: I prefer a low risk/high security job over a job that offers high risks and high rewards\* (%)**

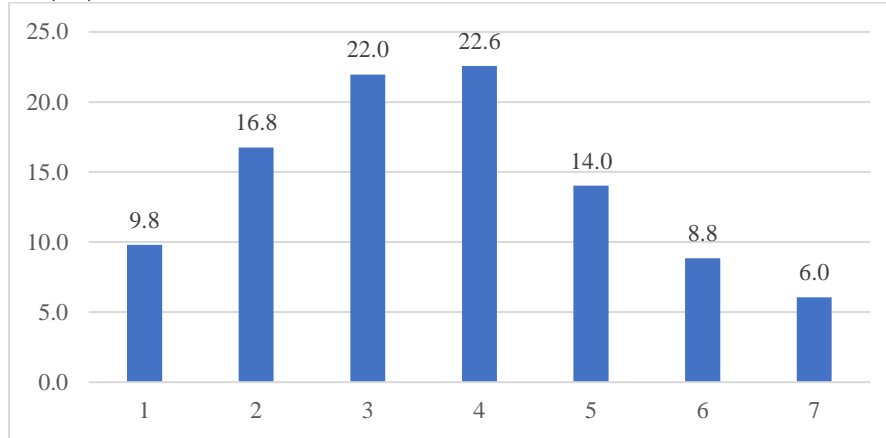


\*(1=not at all, 7=very much);

Source: Own elaboration

Furthermore, Figure 7 presents the distribution of students indicating their responses to “I view risk on a job as a situation to be avoided at all costs” on a 7-point scale. To begin, 581 respondents gave a “1” rating which implies “not at all” and suggests a complete disapproval as to their perception on how they view risk on a job as a situation to be avoided at all costs “This response is closely followed by respondents with a “2 and 3” scale rating with responses suggesting that they disagree and somewhat disagree that they view risk on a job as a situation to be avoided at all costs”. Their responses had values of 992 and 1300 respectively. On a neutral level, 1337 of the respondents neither agreed nor disagree that they view risk on a job as a situation to be avoided at all costs”. The proportion of this respondents represents a category of students that are indifferent as to whether or not they should view risk on a job as a situation to be avoided at all costs”. More so, 830 respondents somewhat agreed with a “5” rating “I view risk on a job as a situation to be avoided at all costs””. Still, 523 respondents agreed with a “6” rating “I view risk on a job as a situation to be avoided at all costs” . Finally, 358 respondents very much agreed with a “7” rating “I view risk on a job as a situation to be avoided at all costs”.

**Fig. 7 Distribution of answers to the statement: I view risk on a job as a situation to be avoided at all costs\* (%)**



\*(1=not at all, 7=very much)

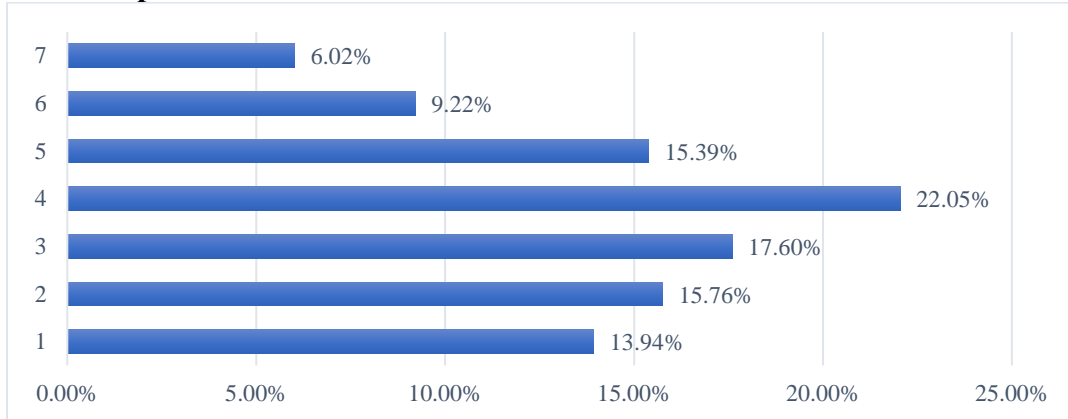
Source: Own elaboration

### 3. DRIVERS OF ENTREPRENEURIAL INTENTIONS

#### 3.1 University context

Figure 8 shows the responses of the students on a 1-7 scale on the extent to which they agree that the atmosphere at their university inspires them to develop new businesses. As shown in the table, 22.05% of the student respondents indicated a neutral position to the question (This implies that they were either indifferent to the question or in their perspective cannot determine whether or not the university environment influences their aspiration to start a new business. Again, 17.60% and 15.76% of the respondents respectively gave somewhat agree and disagree response. 15.39% of the respondents gave a “5” rating suggesting that they somewhat agreed to the assertion. About 13.94% of the respondents gave a “1” scale rating. In addition, 9.22% of the respondents gave a “6” rating suggesting that they agreed to the submission that the university atmosphere inspires them to develop new businesses. The category of the rating with least representation in terms of the percentage of respondents is “7” scale. 6.02% of the student respondents gave the highest rating suggesting that they very much agree that their university atmosphere inspires them to develop new businesses. This indicates that they perceive their university environment to be entrepreneurial and as such, it stirs the entrepreneurial spirit in them.

**Fig. 8 Distribution of answers to the statement: The atmosphere at my University inspires me to develop ideas for new businesses\***

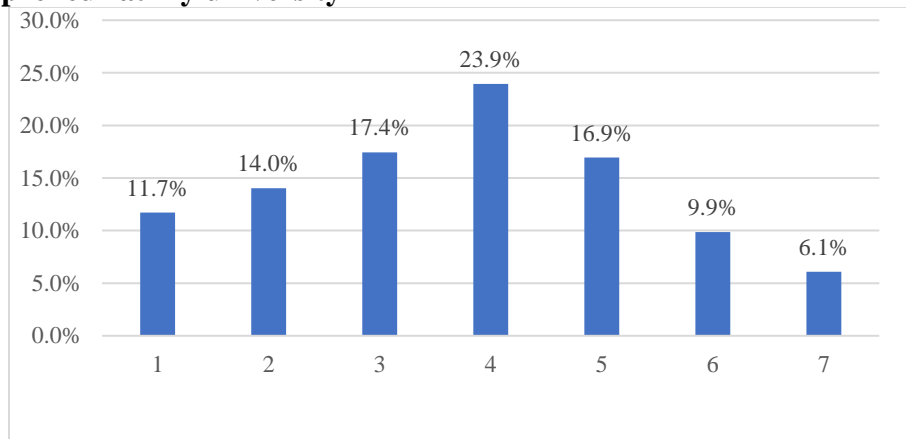


\*(1=not at all, 7=very much);

Source: Own elaboration

However, it should also be noted that only 6.1% of the respondents chose the answer "very much" to the statement "There is a favourable climate at my university for becoming an entrepreneur" (Fig. 9).

**Fig. 9 Distribution of answers to the statement: There is a favourable climate for becoming an entrepreneur at my university\***



\*(1=not at all, 7=very much);

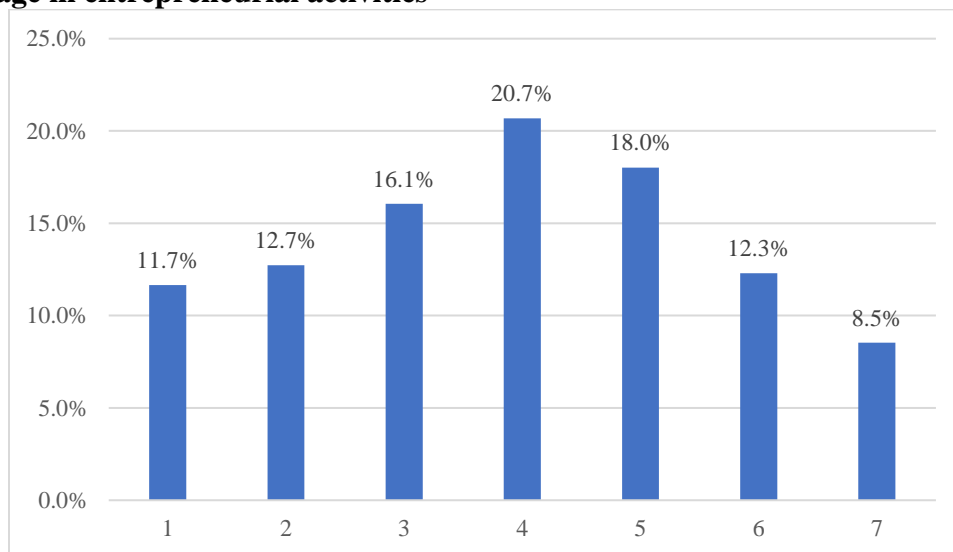
Source: Own elaboration

Figure 10 shows the responses of the students on a 1-7 scale on the extent to which they agree that at their university, students are encouraged to engage in entrepreneurial activities. A larger percentage of the respondents gave a neutral rating of "4" with an accompanying percentage of 20.7%, which implies that the student respondents had a neutral perception on whether or not their university encourages students to engage in entrepreneurial activities. 16.1% is the representative

percentage of respondents with a “3” rating on the 1-7 scale. 12.7% gave a rating of “2” and 11.7% gave “1” rating which implies that their university does not encourage students to engage in entrepreneurial activities. Moving on, 18% and 12.3% respectively represents the fraction of respondents with a “5” and “6” rating on the 1-7 scale adopted for the survey. Their responses imply a somewhat agree and disagree response.

To conclude, 8.5% of the entire responses gave a “7” rating on the 1-7 scale representing a “very much” response implying that in their university, students are encouraged to engage in entrepreneurial activities. This category of respondents represents the highest scale of positive responses as to university role in encouraging students’ involvement in entrepreneurial activities.

**Fig. 10 Distribution of answers to the statement: At my university, students are encouraged to engage in entrepreneurial activities\***



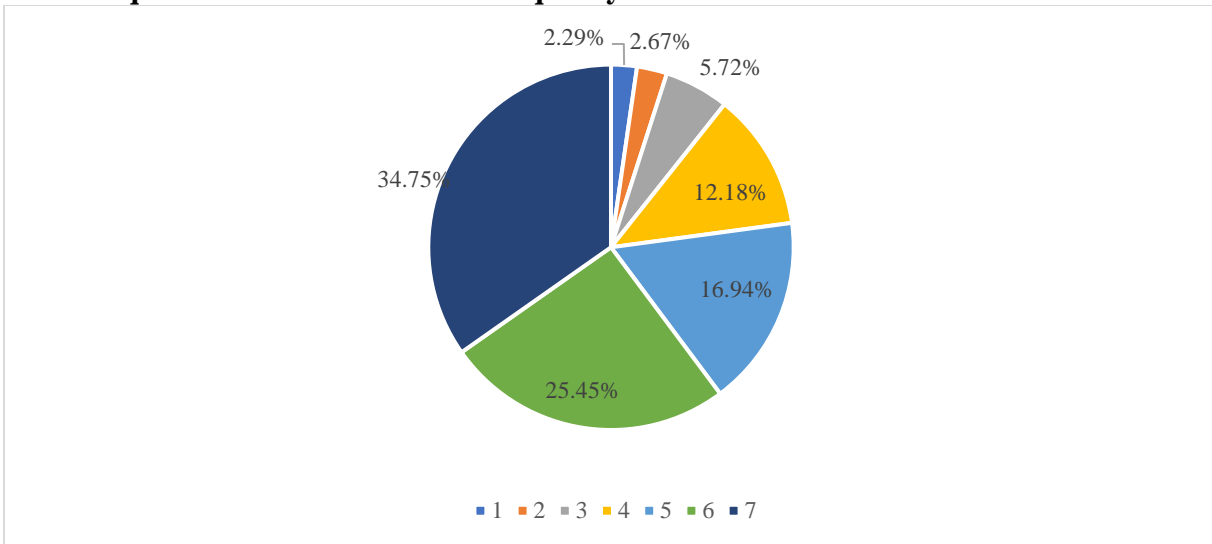
\*(1=not at all, 7=very much);

Source: Own elaboration

Figure 11 analyses the responses of the students on the extent to which they agree about a statement pertaining to their university “My university ensures that all students (irrespective of gender, age, ethnicity, religion, disability, or socio-economic status) have equal access to affordable and quality education”. Respondents were asked to assess their level of agreement with the statement on a seven-point scale ranging from “not at all (1) to “very much “(7). 2.29% of the respondents gave a “not at all” (1) response, 2.67% gave a “2” rating, 5.72% gave a “3” rating. 12.18% gave a rating of “4” which indicates a neutral response on the statement, 16.94% gave a “5” scale rating, 25.45%

gave a “6” scale rating. The highest percentage of respondents (34.75%) gave a “7” rating on the 1-7 scale.

**Fig. 11. Distribution of answers to the statement: My University ensures that all students have equal access to affordable and quality education\***

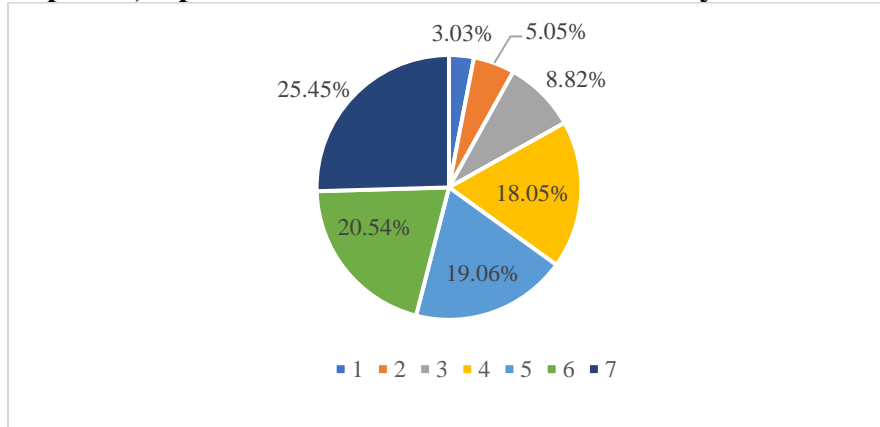


\*(1=not at all, 7=very much)

Source: Own elaboration

Figure 12 analyses the responses of the students on the extent to which they agree about a statement pertaining to their university “My university ensures that all students have equal participation, representation and voice in the university's decision making”. Respondents were asked to assess their level of agreement with the statement on a seven-point scale ranging from “not at all (1) to “very much “(7). 3.03% of the respondents gave a “not at all” (1) response, 5.05% gave a “2” rating, 8.82% gave a “3” rating. 18.05% gave a rating of “4” which indicates a neutral response on the statement, 19.06% gave a “5” scale rating, 20.54% gave a “6” scale rating. The highest percentage of respondents (25.54%) gave a “7” rating on the 1-7 scale. This means that a larger fraction of the respondents attested that their university ensures that all students have equal participation, representation and voice in the university's decision making.

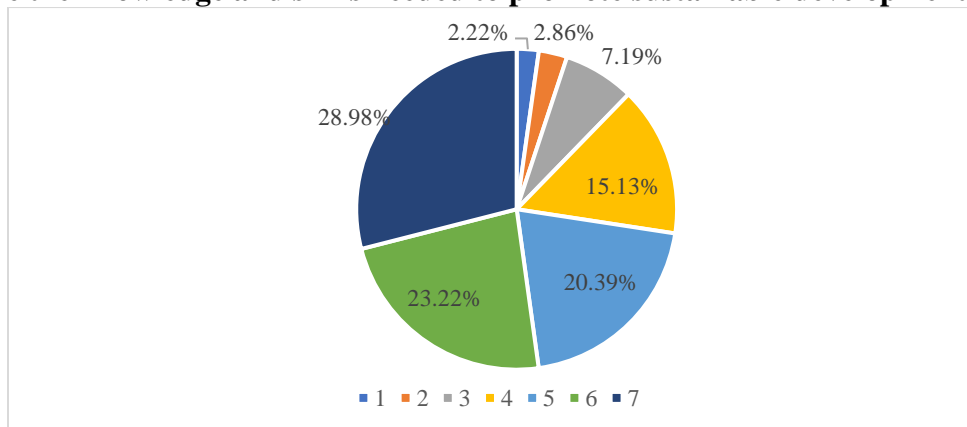
**Fig. 12. Distribution of answers to the statement: My University ensures that all students equal participation, representation and voice in the university's decision making\***



\*(1=not at all, 7=very much); Source: Own elaboration

Figure 13 analyses the responses of the students on the extent to which they agree about a statement pertaining to their university “My university ensures that all students acquire the knowledge and skills needed to promote sustainable development”. Respondents were asked to assess their level of agreement with the statement on a seven-point scale ranging from “not at all (1) to “very much (7). 2.22% of the respondents gave a “not at all” (1) response, 2.86% gave a “2” rating, 7.19% gave a “3” rating. 15.13% gave a rating of “4” which indicates a neutral response on the statement, 20.39% gave a “5” scale rating and 23.22% gave a “6” scale rating. The highest percentage of respondents (28.98%) gave a “7” rating on the 1-7 scale.

**Fig. 13. Distribution of answers to the statement: My University ensures that all students acquire the knowledge and skills needed to promote sustainable development\***



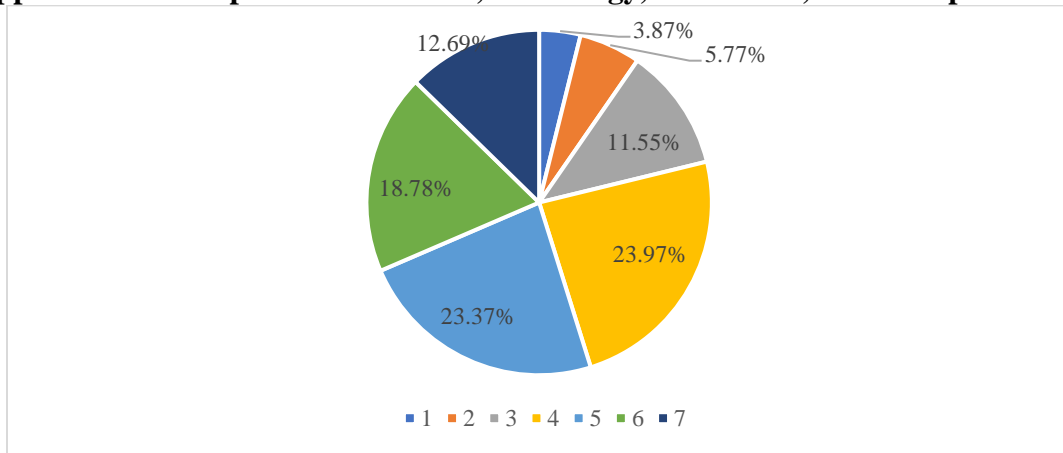
\*(1=not at all, 7=very much);

Source: Own elaboration



Figure 14 analyses the responses of the students on the extent to which they agree about a statement pertaining to their university “My university enhances, facilitates, and supports the development of research, technology, innovation, and entrepreneurship”. Respondents were asked to assess their level of agreement with the statement on a seven-point scale ranging from “not at all (1) to “very much “(7). 3.87% of the respondents gave a “not at all” (1) response, 5.77% gave a “2” rating, 11.55% gave a “3” rating. 23.97% gave a rating of “4” which indicates a neutral response on the statement, 23.37% gave a “5” scale rating and 18.78% gave a “6” scale rating. The highest rating on 1-7 scale had a 12.69% (“7”) indicating that the university enhances, facilitates and supports the development of research, technology, innovation and entrepreneurship.

**Fig. 14. Distribution of answers to the statement: My university enhances, facilitates, and supports the development of research, technology, innovation, and entrepreneurship\***

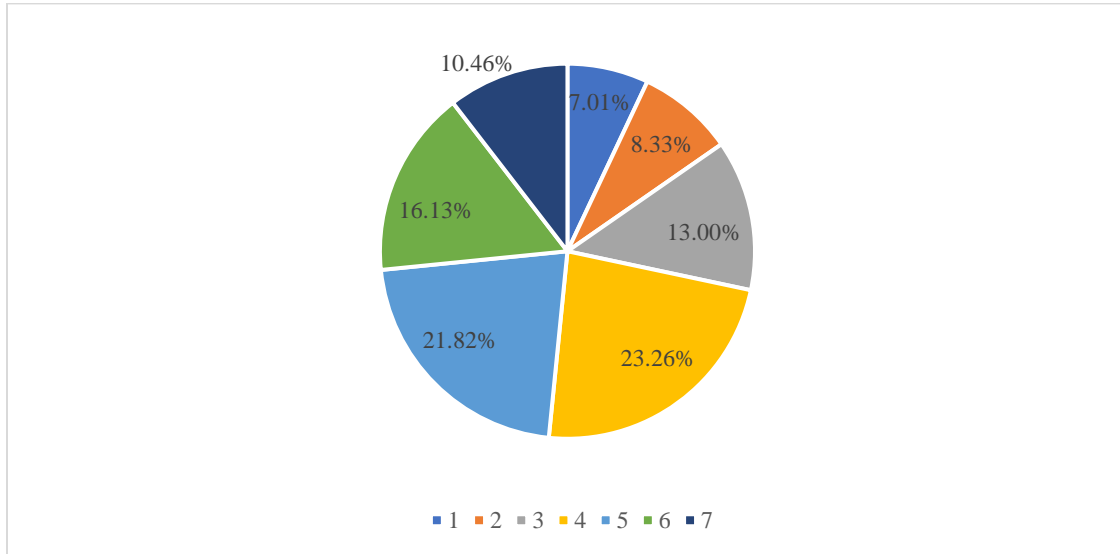


\*(1=not at all, 7=very much);

Source: Own elaboration

Figure 15 analyses the responses of the students on the extent to which they agree about a statement pertaining to their university “My university enhances, facilitates, and supports the collaboration with local authorities / firms to provide employment for all students.” Respondents were asked to assess their level of agreement with the statement on a seven-point scale ranging from “not at all (1) to “very much “(7). 7.01% of the respondents gave a “not at all” (1) response, 8.33% gave a “2” rating, 13.00% gave a “3” rating. 23.26% gave a rating of “4” which indicates a neutral response on the statement, 21.82% gave a “5” scale rating and 16.13% gave a “6” scale rating. 10.46% of the student respondents gave a “7” rating on the 1-7 scale adopted for the study; indicating that they gave a higher rating that their university enhances, facilitates and supports the collaboration with local authorities/firms to provide employment for all students.

**Fig. 15 Distribution of answers to the statement: My university enhances, facilitates, and supports the collaboration with local authorities/firms to provide employment for all students\***

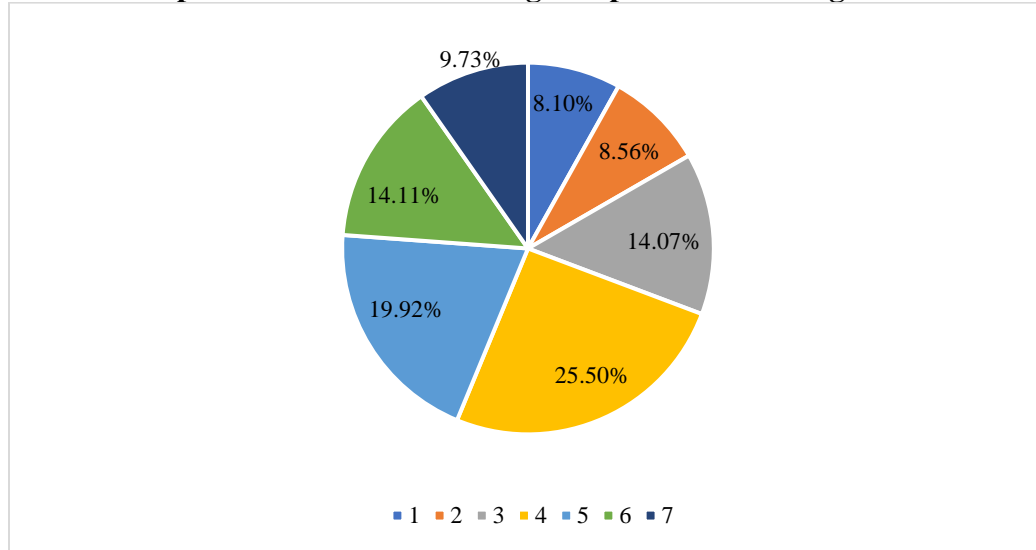


\*(1=not at all, 7=very much);

Source: Own elaboration

Figure 16 analyses the responses of the students on the extent to which they agree about a statement pertaining to their university “My university enhances, facilitates, and supports the development of sustainable and green practices to mitigate climate change”. Respondents were asked to assess their level of agreement with the statement on a seven-point scale ranging from “not at all (1) to “very much “(7). 8.10% of the respondents gave a “not at all” (1) response, 8.56% gave a “2” rating, 14.07% gave a “3” rating. 25.50% gave a rating of “4” which indicates a neutral response on the statement, 19.92% gave a “5” scale rating and 14.11% gave a “6” scale rating. 9.73% of the student respondents gave a “7” rating on the 1-7 scale adopted for the study; indicating that they gave a higher rating that their university enhances, facilitates and supports the development of sustainable and green practices to mitigate climate change. This orientation implies that the universities with a “7” rating imbibe the consciousness of people, planet and profit in devising their models of operation.

**Fig. 16 Distribution of answers to the statement: My university enhances, facilitates, and supports the development of sustainable and green practices to mitigate climate change\***



\*(1=not at all, 7=very much);

Source: Own elaboration

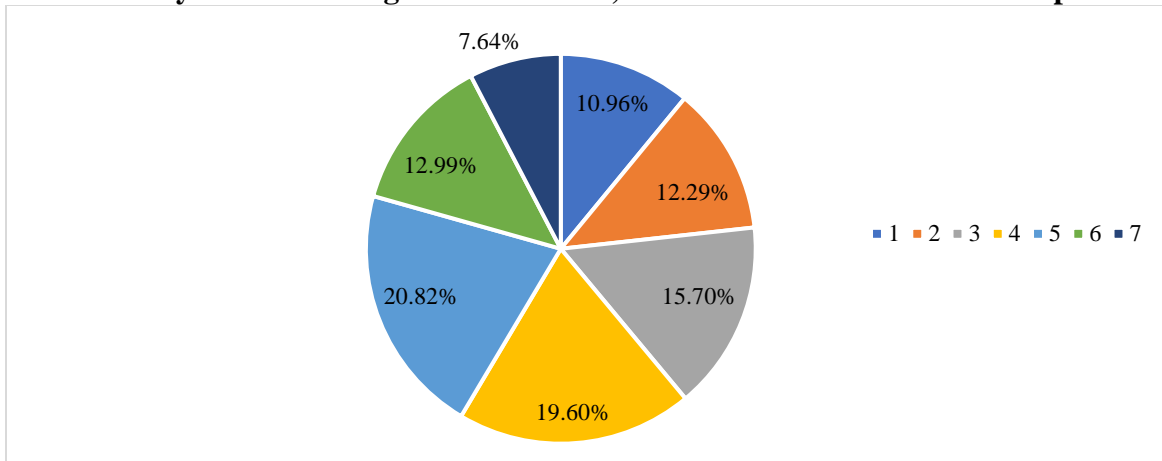
Moreover students were asked to give multiple answers possible with a “Yes” or “No” response on “I chose to study at this university mainly because of its strong entrepreneurial reputation”. 7.04% of the student respondents responded with a “Yes” answer implying that the choice of their current university is because of the university’s strong entrepreneurial reputation. As such they aspire to imbibe the entrepreneurial mind-set needed to start their own businesses and be their own bosses. On the other hand, 92.96% of the student respondents gave a “No” response implying that their choice to study in their current university is not mainly because of its strong entrepreneurial reputation.

### 3.2 Entrepreneurship education

Figure 17 analyses the responses of the students on the extent to which they agree about a statement pertaining to their studies “the courses and offerings I attended increased my understanding of the attitudes, values and motivations of entrepreneurs”. Respondents were asked to assess their level of agreement with the statement on a seven-point scale ranging from “not at all (1) to “very much (7).10.96% of the respondents gave a “not at all” (1) response, 12.29% gave a “2” rating, 15.70% gave a “3” rating, 19.60% gave a rating of “4” rating implying their neutral stand on the statement,

20.82% gave a “5” scale rating, 12.99% gave a “6” scale rating. Principally, the highest rating on the 1-7 scale “7” had 7.64%.

**Fig. 17 Distribution of answers to the statement: The courses and offerings I attended increased my understanding of the attitudes, values and motivations of entrepreneurs**

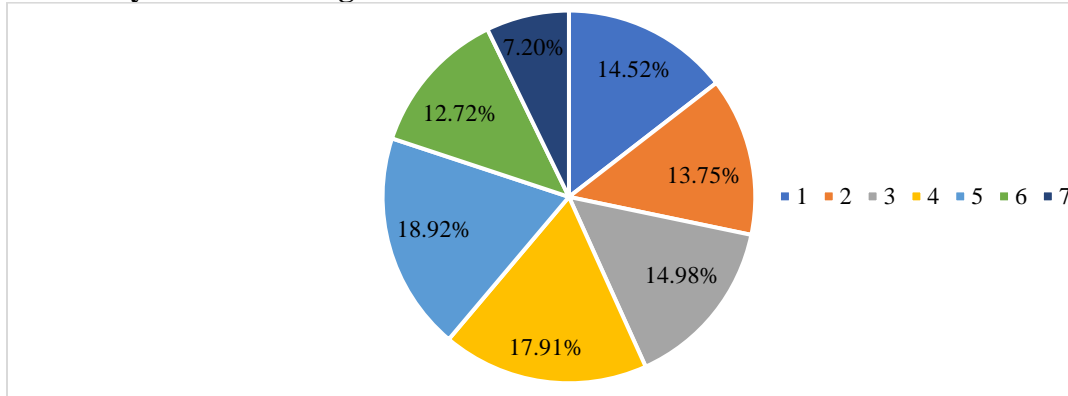


\*(1=not at all, 7=very much);

Source: Own elaboration

Figure 18 analyses the responses of the students on the extent to which they agree about a statement pertaining to their studies “the courses and offerings I attended increased my understanding of the actions someone has to start a business” Respondents were asked to assess their level of agreement with the statement on a seven-point Likert scale ranging from “not at all (1) to “very much “(7). 14.52% of the respondents gave a “not at all” (1) response, 13.75% gave a “2” rating, 14.98% gave a “3” rating, 17.91% gave a rating of “4” rating implying their neutral stand on the statement, 18.92% gave a “5” scale rating, 12.72% gave a “6” scale rating. Observably, a 7.20% of the responses were rated “7” on the 1-7 scale. Their response is indicative of the fact that the courses and offerings attended increases the understanding of student respondents of the actions someone has to take to start a business.

**Fig. 18 Distribution of answers to the statement: The courses and offerings I attended increased my understanding of the actions someone has to start a business\***

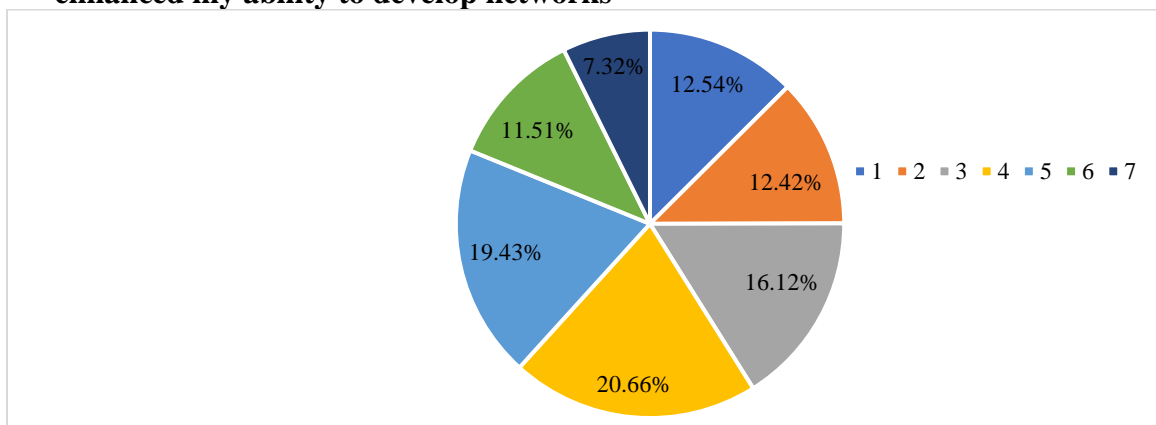


\*(1=not at all, 7=very much);

Source: Own elaboration

Figure 19 analyses the responses of the students on the extent to which they agree about a statement pertaining to their studies “the courses and offerings I attended enhanced my ability to develop networks”. Respondents were asked to assess their level of agreement with the statement on a seven-point Likert scale ranging from “not at all (1) to “very much “(7).12.54% of the respondents gave a “not at all” (1) response, 12.42% gave a “2” rating, 16.12% gave a “3” rating. 20.66% gave a rating of “4” rating implying their neutral stand on the statement, 19.43% gave a “5” scale rating, 11.51% gave a “6” scale rating. Noticeably, 7.32% of the responses gave the highest rating of “7” on the 1-7 scale rating.

**Fig. 19 Distribution of answers to the statement: The courses and offerings I attended enhanced my ability to develop networks\***

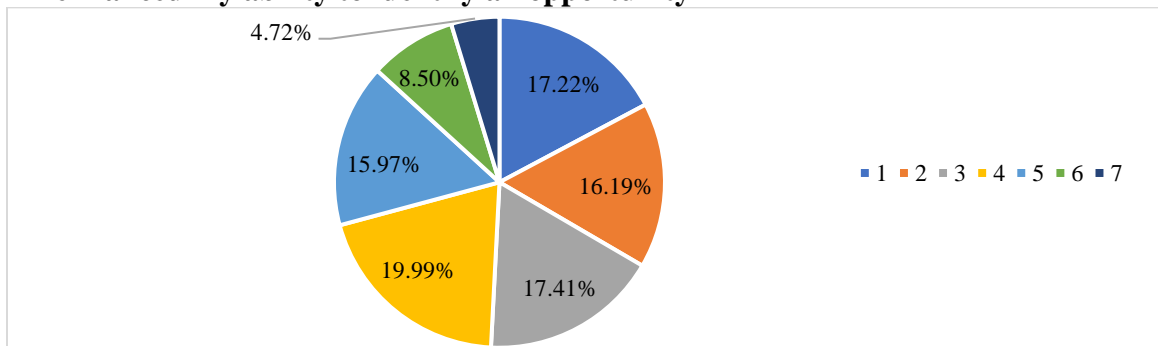


\*(1=not at all, 7=very much);

Source: Own elaboration

Figure 20 analyses the responses of the students on the extent to which they agree about a statement pertaining to their studies “the courses and offerings I attended enhanced my ability to identify an opportunity”. Respondents were asked to assess their level of agreement with the statement on a seven-point Likert scale ranging from “not at all (1) to “very much “(7). 17.22% of the respondents gave a “not at all” (1) response, 16.19% gave a “2” rating, 17.41% gave a “3” rating, 19.99% gave a rating of “4” which indicates a neutral stand on the statement, 15.97% gave a “5” scale rating, 8.50% gave a “6” scale rating. Emphatically, 4.72% of the respondents gave the highest rating of “7” on the 1-7 scale rating. The category of students’ respondents with a “7” is the least represented.

**Fig. 20. Distribution of answers to the statement: the courses and offerings I attended enhanced my ability to identify an opportunity\***

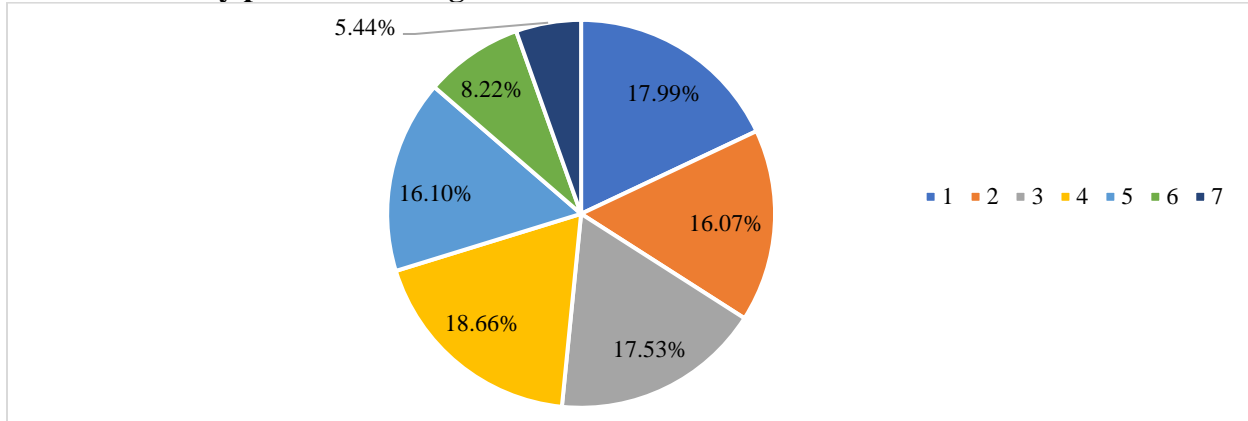


\*(1=not at all, 7=very much);

Source: Own elaboration

Figure 21 analyses the responses of the students on the extent to which they agree about a statement pertaining to their studies “the courses and offerings I attended enhanced my practical management skills to start a business”. Respondents were asked to assess their level of agreement with the statement on a seven-point Likert scale ranging from “not at all (1) to “very much “(7). 17.99% of the respondents gave a “not at all” (1) response, 16.07% gave a “2” rating, 17.53% gave a “3” rating, 18.66% gave a rating of “4” which is indicative of their neutral stand on the statement, 16.10% gave a “5” scale rating, 8.22% gave a “6” scale rating. Fundamentally, the category of respondents with the least responses had a 5.44% representation with the highest rating of “7” on the 1-7 scale adopted for the study.

**Fig. 21. Distribution of answers to the statement: The courses and offerings I attended enhanced my practical management skills to start a business\***



\*(1=not at all, 7=very much);

Source: Own elaboration

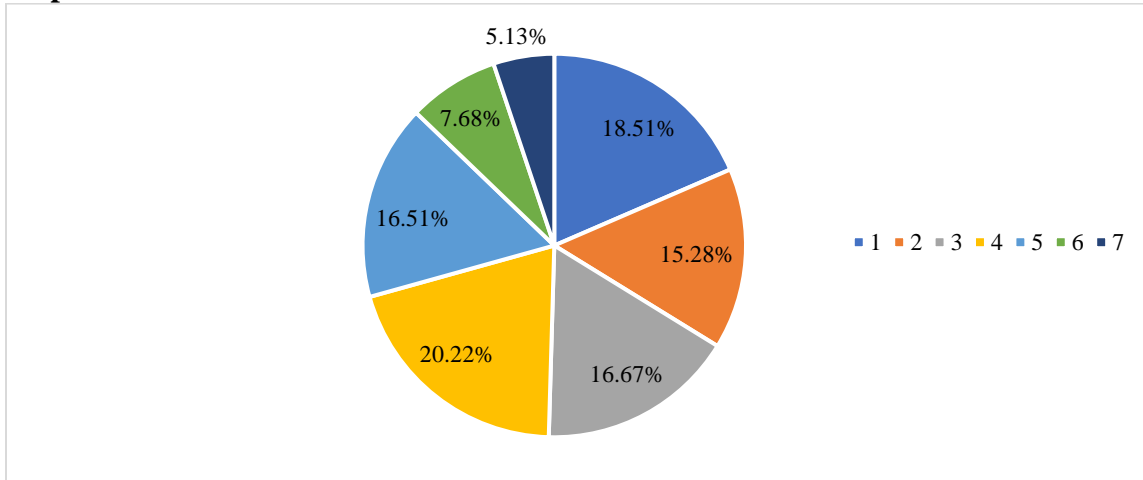
Furthermore, the survey results reveal that 59% of the respondents have not attended a course on entrepreneurship so far. This means they have no prior exposure to entrepreneurship education and training. 20.38% of the student respondents answered “I have attended at least one entrepreneurship course as elective”. Moreover student respondents gave multiple answers possible on “ I have attended at least one entrepreneurship course as compulsory part of my studies” with a “Yes” or “No” response. The least percentage of student respondents with a 20.46% answered with a “Yes” which is indicative that they have indeed attended at least one entrepreneurship course as a compulsory part of their studies. Students were asked to give multiple answers possible with a “Yes” or “No” response on “I am studying in a specific program on entrepreneurship” 8.17% of the student respondents responded with a “Yes” answer implying that they are studying in a specific program on entrepreneurship. On the other hand, 91.83% of the student respondents gave a “No” response indicating that they are not studying in a specific program on entrepreneurship.

### 3.3 Founding intention by participation in entrepreneurship education

Figure 22 analyses the responses of the students on the extent to which they agree about a statement pertaining to their university “ I am ready to do anything to be an entrepreneur.” Respondents were asked to assess their level of agreement with the statement on a seven-point Likert scale ranging from “strongly disagree” (1) to “strongly agree” (7). 18.51% of the respondents gave a “Strongly disagree” (1) response, 15.28% gave a “2” rating (Disagree), 16.67% gave a “3” rating (Somewhat

disagree) 20.22% gave a rating of “4” which indicates a neutral response on the statement (Neither agree or disagree), 16.51% gave a “5” scale rating (Somewhat agree) and 7.68% gave a “6” scale rating (Agree). The least category of respondents gave had 5.13% of the student respondents with a “7” (strongly agree) rating on the 1-7 scale adopted for the study; indicating that despite the least percentage, the category of students gave a higher rating about their university.

**Fig. 22. Distribution of answers to the statement: I am ready to do anything to be an entrepreneur\***



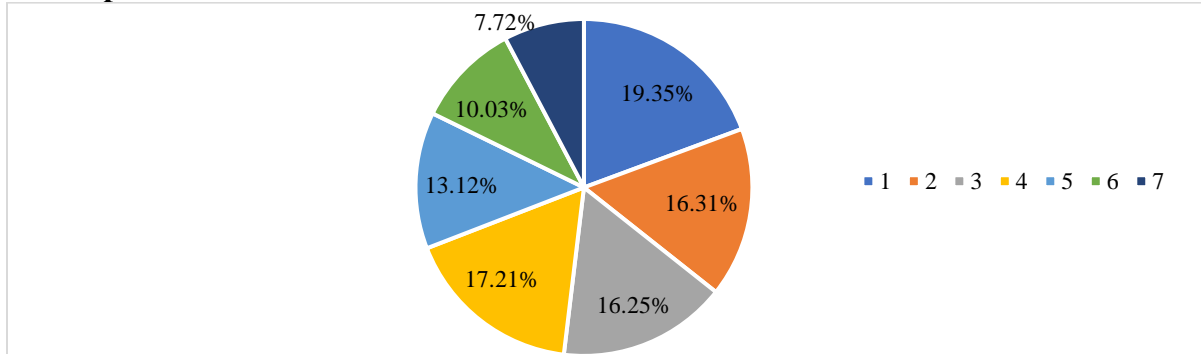
\*(1– Strongly disagree; 2 – Disagree; 3 – Somewhat disagree; 4 – Neither agree or disagree; 5 – Somewhat agree; 6 – Agree; 7 – Strongly agree)

Source: Own elaboration

Figure 23 analyses the responses of the students on the extent to which they agree about a statement pertaining to their university “ My professional goal is to become an entrepreneur.” Respondents were asked to assess their level of agreement with the statement on a seven-point Likert scale ranging from “strongly disagree” (1) to “strongly agree” (7). 19.35% of the respondents gave a “strongly disagree” (1) response, 16.31% gave a “2” rating, 16.25% gave a “3” rating. 17.21% gave a rating of “4” which indicates a neutral response on the statement, 13.12% gave a “5” scale rating and 10.03% gave a “6” scale rating. The least category of respondents gave had 7.72% of the student respondents with a “7” rating on the 1-7 scale adopted for the study; indicating that despite the least percentage, the category of students gave a higher rating about their definition of who an entrepreneur is and their professional goal of becoming an entrepreneur.



**Fig. 23 Distribution of answers to the statement: My professional goal is to become an entrepreneur\***

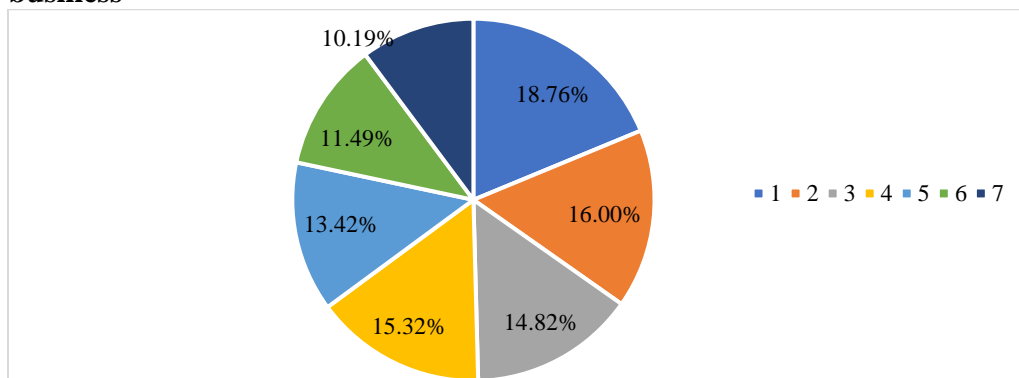


\*(1=strongly disagree, 7=strongly agree);

Source: Own elaboration

Figure 24 analyses the responses of the students on the extent to which they agree about a statement “I will make every effort to start and run my own business.” Respondents were asked to assess their level of agreement with the statement on a seven-point Likert scale ranging from “strongly disagree” (1) to “strongly agree” (7). 18.76% of the respondents gave a “strongly disagree” (1) response, 16.00% gave a “2” rating, 14.82% gave a “3” rating. 15.32% gave a rating of “4” which indicates a neutral response on the statement, 13.42% gave a “5” scale rating and 11.49% gave a “6” scale rating. The 10.19% represents the least category of student respondents to the question asked but also with the highest value “7” (strongly agree) on the 1-7 scale utilized. This result shows that the student respondents indeed attest that an entrepreneur refers to someone who runs his or her own business and that they will make effort to start and run their own business.

**Fig. 24 Distribution of answers to the statement: I will make every effort to start and run my own business\***

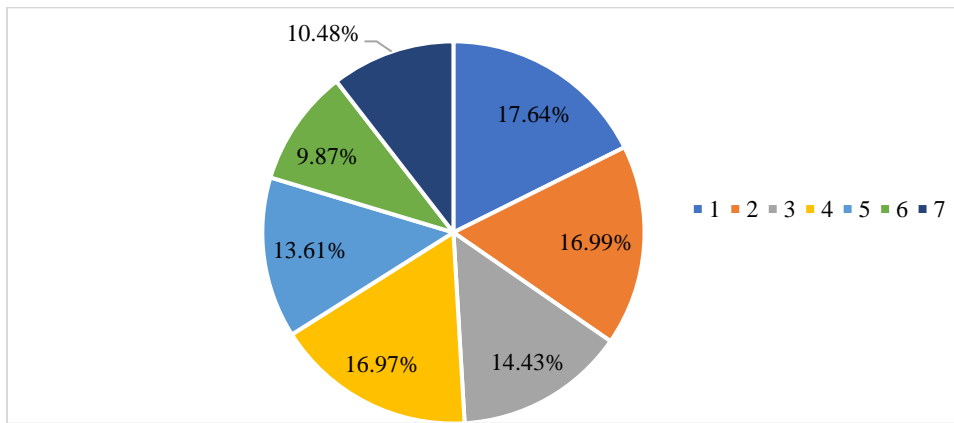


\*(1=strongly disagree, 7=strongly agree);

Source: Own elaboration

Figure 25 analyses the responses of the students on the extent to which they agree about a statement “I am determined to create a business in the future”. Respondents were asked to assess their level of agreement with the statement on a seven-point Likert scale ranging from “strongly disagree” (1) to “strongly agree” (7). 17.67% of the respondents gave a “strongly disagree” (1) response, 16.99% gave a “2” rating, 14.43% gave a “3” rating. 16.97% gave a rating of “4” which indicates a neutral response on the statement, 13.61% gave a “5” scale rating and 9.87% gave a “6” scale rating. The 10.48% represents the second least category of student respondents to the question asked but also with the highest value “7” on the 1-7 scale utilized. This result shows that the respondents are very much determined to create a business in the future.

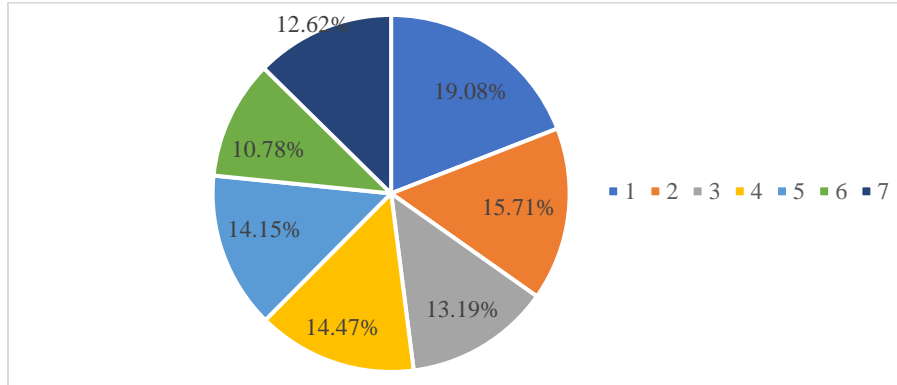
**Fig. 25. Distribution of answers to the statement: I am determined to create a business in the future\***



\*1=strongly disagree, 7=strongly agree; Source: Own elaboration

From Figure 26, the responses of the students on the extent to which they agree about a statement pertaining to their perspective on entrepreneurship “I have very seriously thought of starting a business.” Respondents were asked to assess their level of agreement with the statement on a seven-point Likert scale ranging from “strongly disagree (1) to “strongly agree “(7). 19.08% of the respondents gave a “strongly disagree” (1) response, 15.71% gave a “2” rating, 13.19% gave a “3” rating. 14.47% gave a rating of “4” which indicates a neutral response on the statement, 14.15% gave a “5” scale rating and 10.78% gave a “6” scale rating. 12.62% of the student respondents gave a “7” rating on the 1-7 scale indicating a stronger acceptance that they have seriously thought of starting a business.

**Fig. 26. Distribution of answers to the statement: I have very seriously thought of starting a business\***

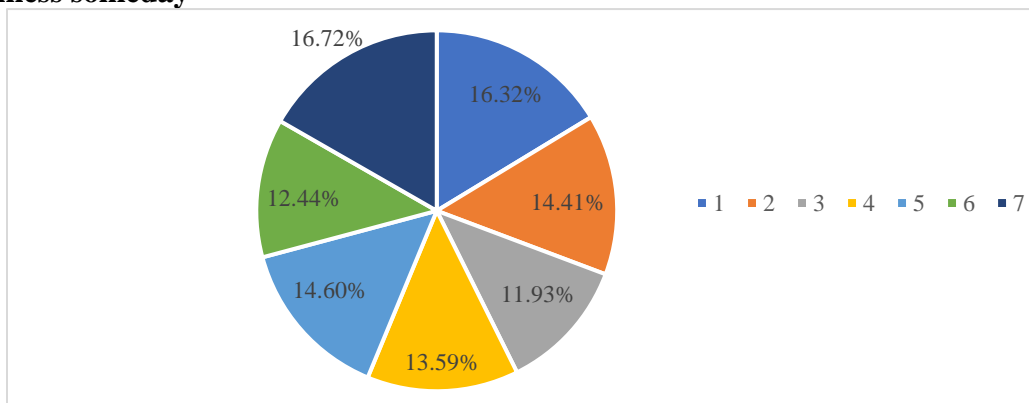


\*1=strongly disagree, 7=strongly agree;

Source: Own elaboration

From Figure 27, the responses of the students on the extent to which they agree about a statement pertaining to their perspective on entrepreneurship “I have the strong intention to start a business someday.” Respondents were asked to assess their level of agreement with the statement on a seven-point Likert scale ranging from “strongly disagree” (1) to “strongly agree” (7). 16.32% of the respondents gave a “strongly disagree” (1) response, 14.41% gave a “2” rating, 11.93% gave a “3” rating, 13.59% gave a rating of “4” which indicates a neutral response on the statement, 14.60% gave a “5” scale rating and 12.44% gave a “6” scale rating. 16.72% of the student respondents gave a “7” rating on the 1-7 scale indicating a stronger agreement that they have intention to start a business someday.

**Fig. 27. Distribution of answers to the statement: I have the strong intention to start a business someday\***

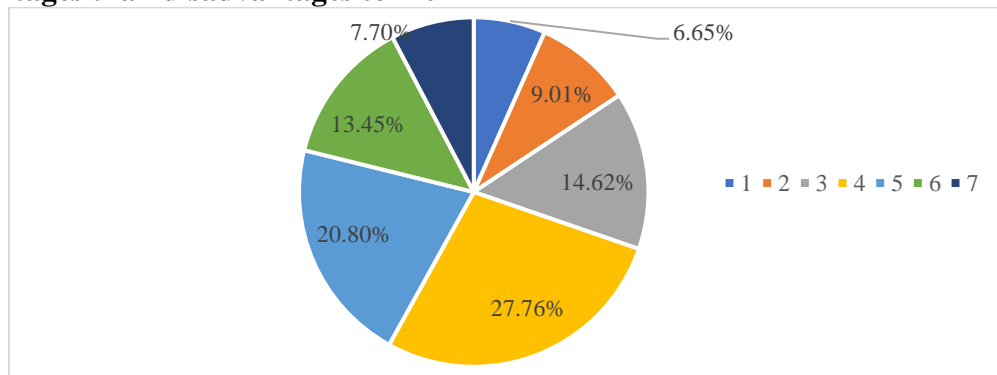


\*1=strongly disagree, 7=strongly agree;

Source: Own elaboration

From the conducted research, the responses of the students on the extent to which they agree about a statement pertaining to their perspective on entrepreneurship “Being an entrepreneur implies more advantages than disadvantages to me.” Respondents were asked to assess their level of agreement with the statement on a seven-point Likert scale ranging from “strongly disagree (1) to “strongly agree “(7). 6.65% of the respondents gave a “strongly disagree” (1) response, 9.01% gave a “2” rating, 14.62% gave a “3” rating. 27.76% gave a rating of “4” which indicates a neutral response on the statement, 20.80% gave a “5” scale rating and 13.45% gave a “6” scale rating. 7.70% of the student respondents gave a “7” rating on the 1-7 scale which implies a stronger stand that being an entrepreneur means more advantages than disadvantages to me.

**Fig. 28 Distribution of answers to the statement: Being an entrepreneur implies more advantages than disadvantages to me\***

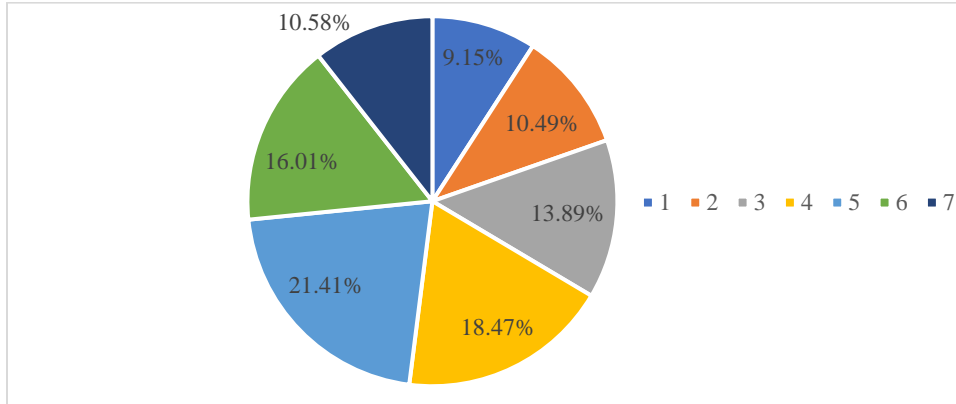


\*1=strongly disagree, 7=strongly agree;

Source: Own elaboration

From the conducted research(Fig. 29), the responses of the students on the extent to which they agree about a statement pertaining to their perspective on entrepreneurship “A career as entrepreneur is attractive for me”. Respondents were asked to assess their level of agreement with the statement on a seven-point Likert scale ranging from “strongly disagree (1) to “strongly agree “(7). 9.15% of the respondents gave a “strongly disagree” (1) response, 10.49% gave a “2” rating, 13.89% gave a “3” rating. 18.47% gave a rating of “4” which indicates a neutral response on the statement, 21.41% gave a “5” scale rating and 16.01% gave a “6” scale rating. 10.58% of the student respondents gave a “7” rating on the 1-7 scale which implies a stronger stand that “a career as entrepreneur is attractive for me”.

**Fig. 29 Distribution of answers to the statement: A career as entrepreneur is attractive for me\***

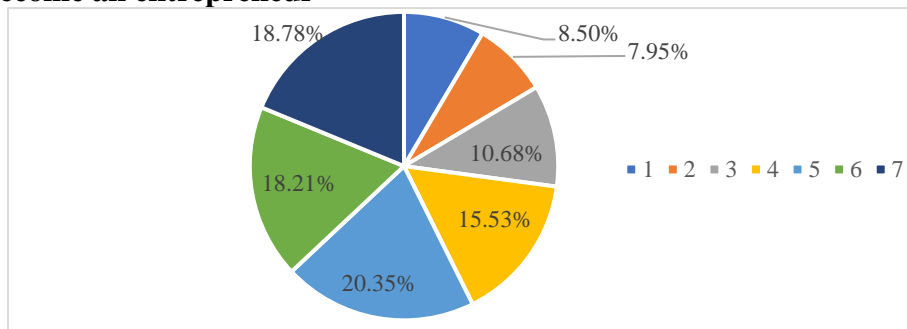


\*1=strongly disagree, 7=strongly agree;

Source: Own elaboration

From the conducted research (Fig. 30), the responses of the students on the extent to which they agree about a statement pertaining to their perspective on entrepreneurship “If I had the opportunity and resources, I would become an entrepreneur”. Respondents were asked to assess their level of agreement with the statement on a seven-point Likert scale ranging from “strongly disagree (1) to “strongly agree “(7). 8.50% of the respondents gave a “strongly disagree” (1) response, 7.95% gave a “2” rating, 10.68% gave a “3” rating. 15.53% gave a rating of “4” which indicates a neutral response on the statement, 20.35% gave a “5” scale rating and 18.21% gave a “6” scale rating. 18.78% of the student respondents gave a “7” rating on the 1-7 scale which implies a stronger stand that given the opportunity and resources, they would become entrepreneurs.

**Fig. 30 Distribution of answers to the statement: If I had the opportunity and resources, I would become an entrepreneur**

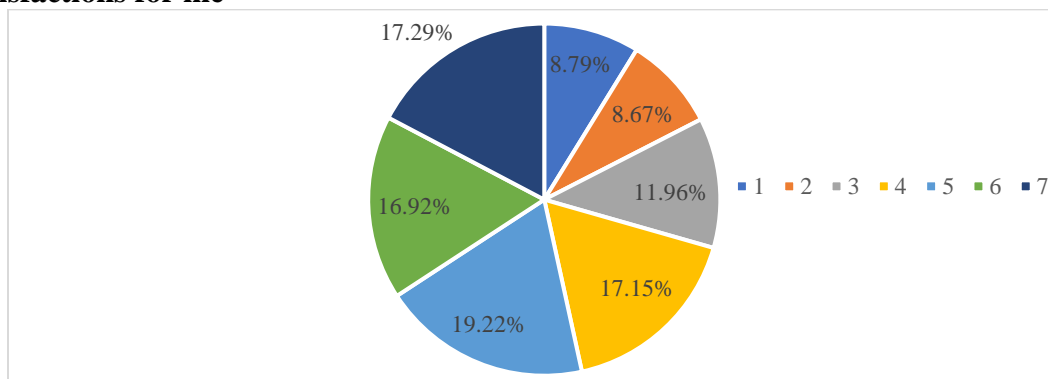


\*1=strongly disagree, 7=strongly agree;

Source: Own elaboration

From the conducted research (Fig. 31), the responses of the students on the extent to which they agree about a statement pertaining to their perspective on entrepreneurship “Being an entrepreneur would entail great satisfactions for me”. Respondents were asked to assess their level of agreement with the statement on a seven-point Likert scale ranging from “strongly disagree” (1) to “strongly agree” (7). 8.79% of the respondents gave a “strongly disagree” (1) response, 8.67% gave a “2” rating, 11.96% gave a “3” rating. 17.15% gave a rating of “4” which indicates a neutral response on the statement, 19.22% gave a “5” scale rating and 16.92% gave a “6” scale rating. 17.29% of the student respondents gave a “7” rating on the 1-7 scale indicating that being an entrepreneur would entail a greater satisfaction for the students.

**Fig. 31 Distribution of answers to the statement: Being an entrepreneur would entail great satisfactions for me\***

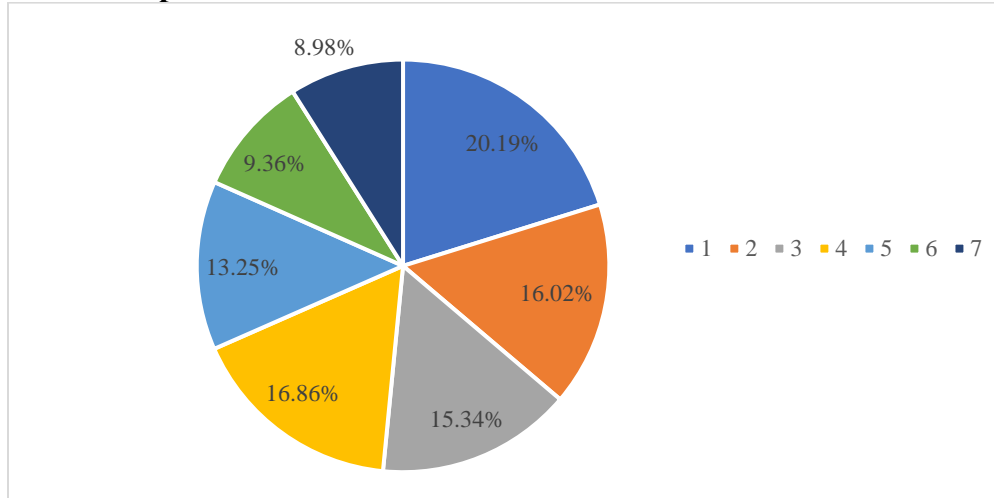


\*1=strongly disagree, 7=strongly agree;

Source: Own elaboration

From the conducted research (Fig. 32), the responses of the students on the extent to which they agree about a statement pertaining to their perspective on entrepreneurship “Among various options, I would rather become an entrepreneur”. Respondents were asked to assess their level of agreement with the statement on a seven-point Likert scale ranging from “strongly disagree (1) to “strongly agree “(7). 20.19% of the respondents gave a “strongly disagree” (1) response, 16.02% gave a “2” rating, 15.34% gave a “3” rating. 16.86% gave a rating of “4” which indicates a neutral response on the statement, 13.25% gave a “5” scale rating and 9.36% gave a “6” scale rating. 8.98% of the student respondents gave a “7” rating on the 1-7 scale indicating “a stronger view that among various options, I would rather become an entrepreneur”.

**Fig. 32 Distribution of answers to the statement: Among various options, I would rather become an entrepreneur.**



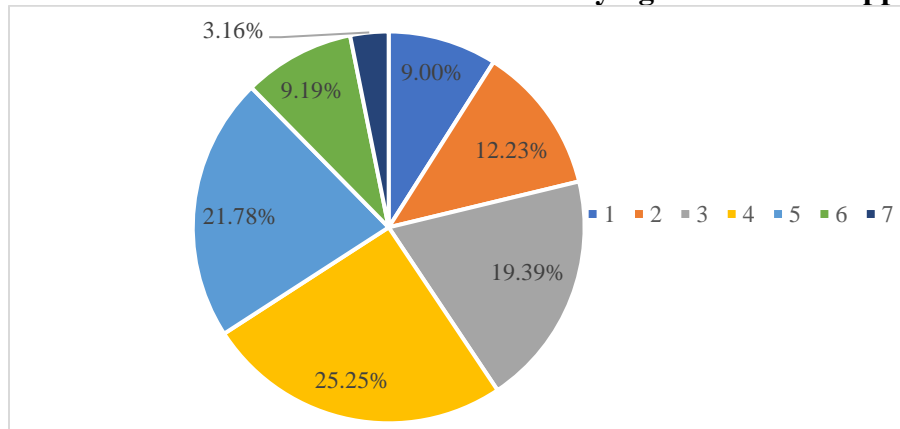
\*1=strongly disagree, 7=strongly agree;

Source: Own elaboration

### 3.4 Students' entrepreneurial competencies and skills

Here, students were assessed on a 1-7 scale to indicate their level of competence in performing some tasks "Identifying new business opportunities". Respondents were asked to assess their level of agreement with the statement on a seven-point Likert scale ranging from "very low competence (1) to "very high competence "(7). 9% of the respondents gave a "very low competence" (1) response, 12.23% gave a "2" rating, 19.39% gave a "3" rating. 25.25% gave a rating of "4" which indicates a neutral response on the statement, 21.78% gave a "5" scale rating and 9.19% gave a "6" scale rating. The least representation in terms of percentages was 3.16%; although with a "7" rating on the 1-7 scale. This response implies that only a smaller fraction of the student respondents have very high competence in terms of identifying new business opportunities. This is depicted in Figure 33.

**Fig. 33 Distribution of answers to the statement: Identifying new business opportunities\***

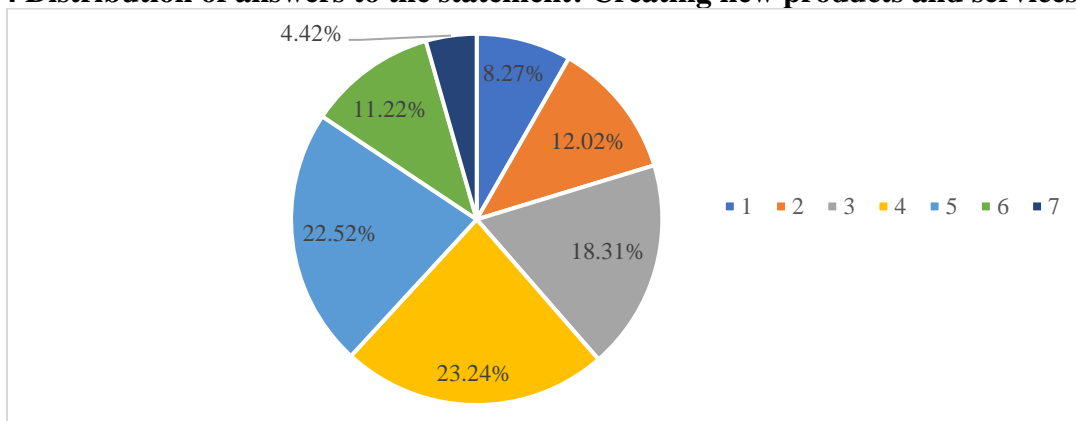


\*1=very low competence; 7=very high competence;

Source: Own elaboration

Moreover, students were assessed on a 1-7 scale to indicate their level of competence in performing some tasks “creating new products and services”. Respondents were asked to assess their level of agreement with the statement on a seven-point Likert scale ranging from “very low competence (1) to “very high competence “(7). (See Figure 34 below) 8.27% of the respondents gave a “very low competence” (1) response, 12.02% gave a “2” rating, 18.31% gave a “3” rating. 23.24% gave a rating of “4” which indicates a neutral response on the statement, 22.52% gave a “5” scale rating and 11.22% gave a “6” scale rating. The least representation in terms of percentages was 4.42%; although with a “7” rating on the 1-7 scale. This response implies that only a smaller fraction of the student respondents have very high competence in terms of creating new products and services.

**Fig. 34 Distribution of answers to the statement: Creating new products and services**



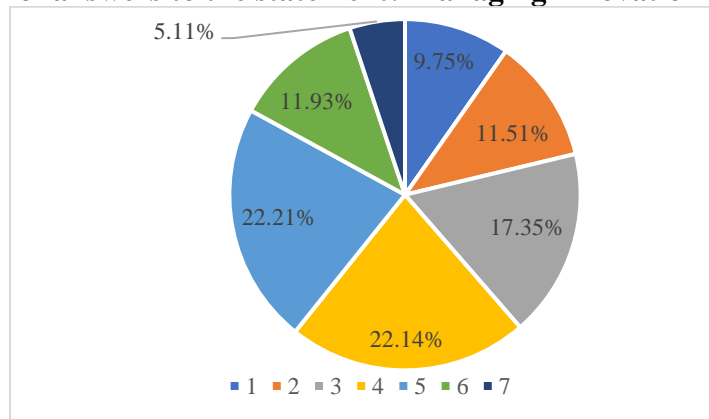
\*1=very low competence; 7=very high competence;

Source: Own elaboration



Here (Fig. 35), students were assessed on a 1-7 scale to indicate their level of competence in performing some tasks “managing innovation within a business”. Respondents were asked to assess their level of agreement with the statement on a seven-point Likert scale ranging from “very low competence (1) to “very high competence “(7). 9.75% of the respondents gave a “very low competence” (1) response, 11.51% gave a “2” rating, 17.35% gave a “3” rating. 22.14% gave a rating of “4” which indicates a neutral response on the statement, 22.21% gave a “5” scale rating and 11.93% gave a “6” scale rating. The least representation in terms of percentages was 5.11%; although with a “7” rating on the 1-7 scale. This response implies that only a smaller fraction of the student respondents has very high competence in terms of managing innovation within a business.

**Fig. 35 Distribution of answers to the statement: Managing innovation within a business**

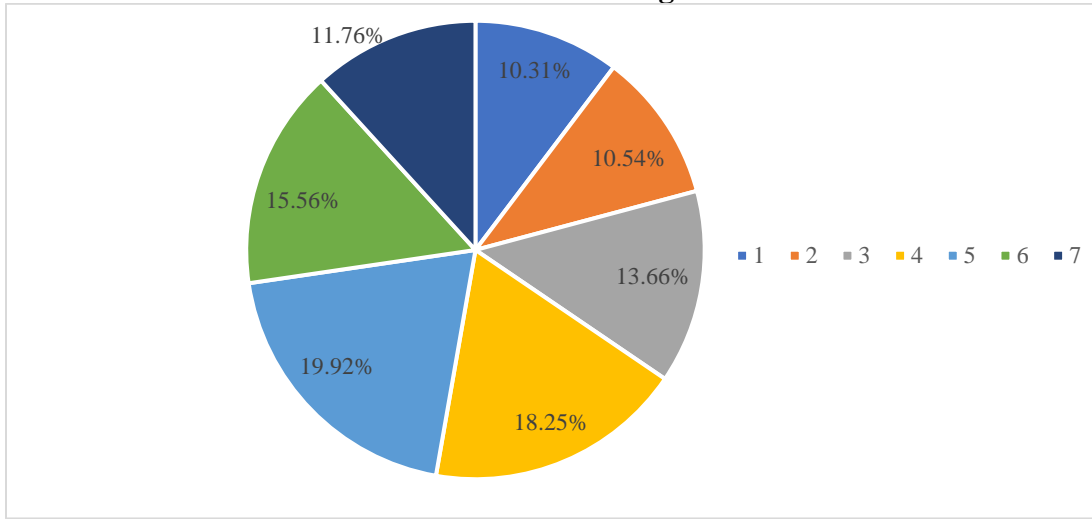


\*1=very low competence; 7=very high competence;

Source: Own elaboration

Here, students were assessed on a 1-7 scale to indicate their level of competence in performing some tasks “being a leader and communicator”. Respondents were asked to assess their level of agreement with the statement on a seven-point Likert scale ranging from “very low competence (1) to “very high competence “(7). (See Fig. 36 below). 10.31% of the respondents gave a “very low competence” (1) response, 10.54% gave a “2” rating, 13.66% gave a “3” rating. 18.25% gave a rating of “4” which indicates a neutral response on the statement, 19.92% gave a “5” scale rating and 15.56% gave a “6” scale rating. 11.76% of the student respondents gave a “7” rating on the 1-7 scale. This response implies a very higher competence on being a leader and communicator.

**Fig. 36 Distribution of answers to the statement: Being a leader and communicator**

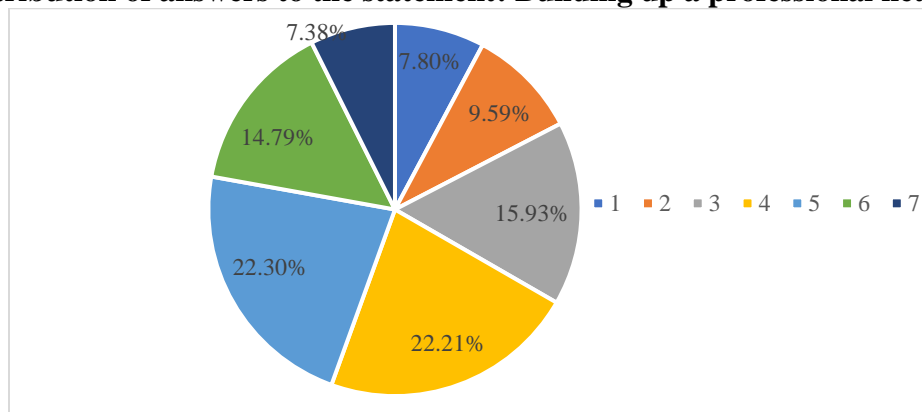


\*1=very low competence; 7=very high competence;

Source: Own elaboration

Here, students were assessed on a 1-7 scale to indicate their level of competence in performing some tasks “building up a professional network”. Respondents were asked to assess their level of agreement with the statement on a seven-point Likert scale ranging from “very low competence (1) to “very high competence” (7). (See Fig. 37). 7.80% of the respondents gave a “very low competence” (1) response, 9.59% gave a “2” rating, 15.93% gave a “3” rating. 22.21% gave a rating of “4” which indicates a neutral response on the statement, 22.30% gave a “5” scale rating and 14.79% gave a “6” scale rating. 7.38% of the student respondents gave a “7” rating on the 1-7 scale which is indicative of a very high competence on building up a professional network.

**Fig. 37 Distribution of answers to the statement: Building up a professional network**

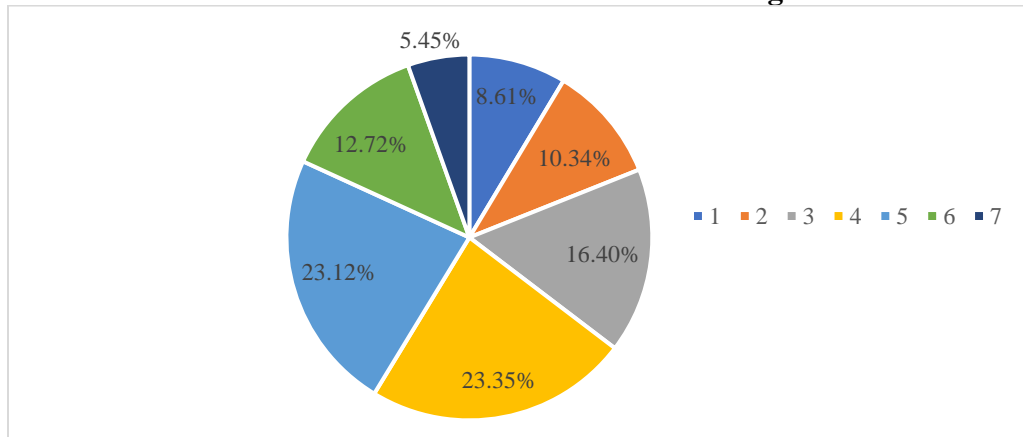


\*1=very low competence; 7=very high competence;

Source: Own elaboration

Here (in Fig. 38), students were assessed on a 1-7 scale to indicate their level of competence in performing some tasks “commercializing a new idea or development”. Respondents were asked to assess their level of agreement with the statement on a seven-point scale ranging from “very low competence (1) to “very high competence”(7). 8.61% of the respondents gave a “very low competence” (1) response, 10.34% gave a “2” rating, 16.40% gave a “3” rating. 23.35% gave a rating of “4” which indicates a neutral response on the statement, 23.12% gave a “5” scale rating and 12.72% gave a “6” scale rating. 5.45% of the student respondents gave a “7” rating on the 1-7 scale which is indicative of a very high competence in commercializing a new idea or development.

**Fig. 38 Distribution of answers to the statement: Commercializing a new idea or development**

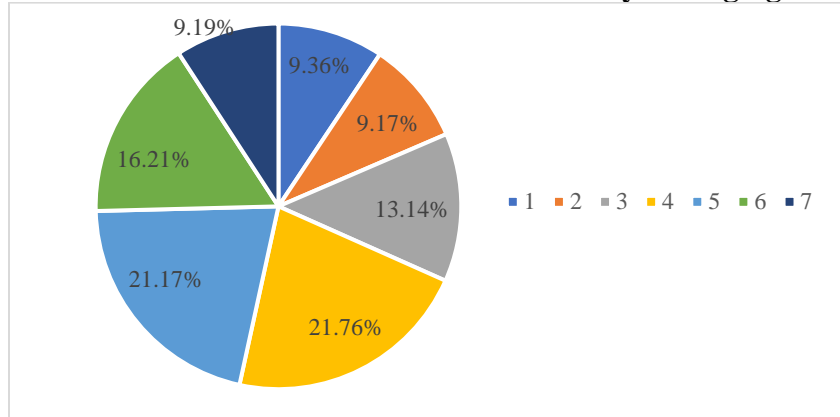


\*1=very low competence; 7=very high competence;

Source: Own elaboration

Here (Fig. 39), students were assessed on a 1-7 scale to indicate their level of competence in performing some tasks “successfully managing a business”. Respondents were asked to assess their level of agreement with the statement on a seven-point scale ranging from “very low competence (1) to “very high competence “(7). 9.36% of the respondents gave a “very low competence” (1) response, 9.17% gave a “2” rating, 13.14% gave a “3” rating. 21.76% gave a rating of “4” which indicates a neutral response on the statement, 21.17% gave a “5” scale rating and 16.21% gave a “6” scale rating. 9.19% of the student respondents gave a “7” rating on the 1-7 scale which is indicative of a very high competence in successfully managing a business.

**Fig. 39 Distribution of answers to the statement: Successfully managing a business**

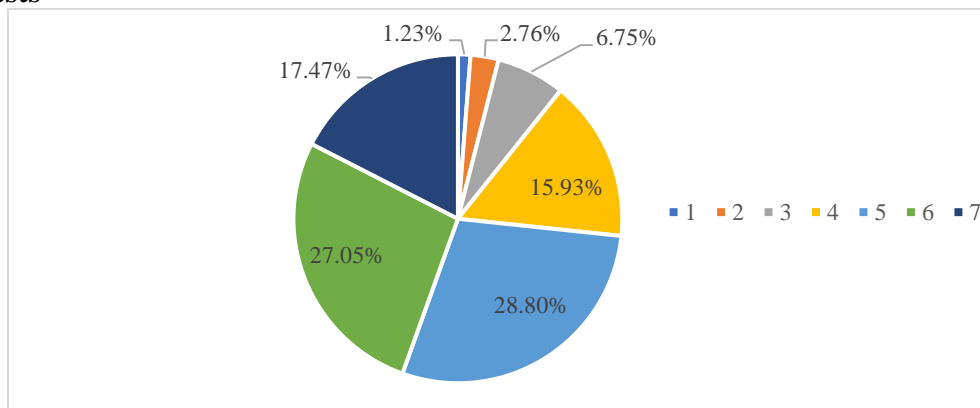


\*1=very low competence; 7=very high competence;

Source: Own elaboration

Here, students were assessed on a 1-7 scale to indicate their level of agreement to the statement “I am usually able to protect my personal interests”. Respondents were asked to assess their level of agreement with the statement on a seven-point Likert scale ranging from “strongly disagree (1) to “strongly agree “(7). (See Fig. 40 below). 1.23% of the respondents gave a “strongly disagree” (1) response, 2.76% gave a “2” rating, 6.75% gave a “3” rating. 15.93% gave a rating of “4” which indicates a neutral response on the statement, 28.80% gave a “5” scale rating and 27.05% gave a “6” scale rating. 17.47% of the student respondents gave a “7” rating on the 1-7 scale meaning that they strongly agree to the statement that they are able to protect their personal interests.

**Fig. 40 Distribution of answers to the statement: I am usually able to protect my personal interests**

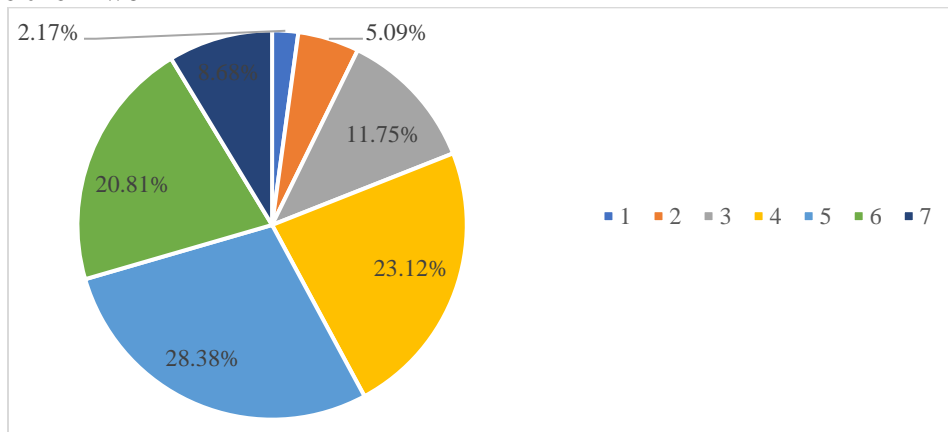


\*1=strongly disagree, 7=strongly agree;

Source: Own elaboration

Here, students were assessed on a 1-7 scale to indicate their level of agreement to the statement “When I make plans, I am almost certain to make them work”. Respondents were asked to assess their level of agreement with the statement on a seven-point Likert scale ranging from “strongly disagree (1) to “strongly agree “(7). 2.17% of the respondents gave a “strongly disagree” (1) response, 5.09% gave a “2” rating, 11.75% gave a “3” rating. 23.12% gave a rating of “4” which indicates a neutral response on the statement, 28.38% gave a “5” scale rating and 20.81% gave a “6” scale rating. 8.68% of the student respondents gave a “7” rating on the 1-7 scale meaning that they strongly agree to the statement that they are able to make plans and almost certain to make them work (Fig. 41).

**Fig. 41 Distribution of responses to the statement: When I make plans, I am almost certain to make them work**

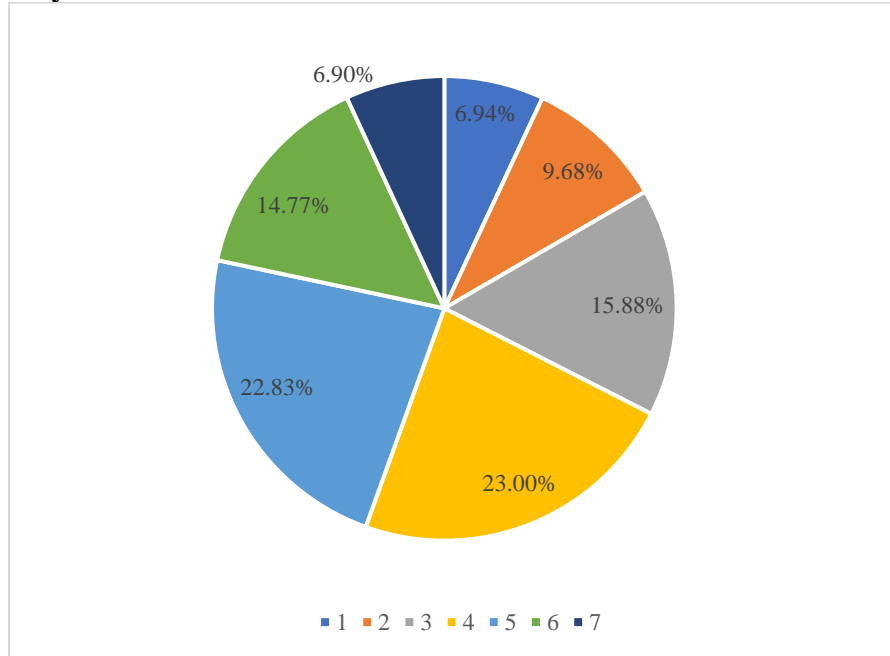


\*1=strongly disagree, 7=strongly agree;

Source: Own elaboration

In Figure 42, students were assessed on a 1-7 scale to indicate their level of agreement to the statement “I can pretty much determine what will happen in my life”. Respondents were asked to assess their level of agreement with the statement on a seven-point Likert scale ranging from “strongly disagree (1) to “strongly agree “(7). 6.94% of the respondents gave a “strongly disagree” (1) response, 9.68% gave a “2” rating, 15.88% gave a “3” rating. 23.00% gave a rating of “4” which indicates a neutral response on the statement, 22.83% gave a “5” scale rating and 14.77% gave a “6” scale rating. 6.90% of the student respondents gave a “7” rating on the 1-7 scale meaning that they strongly agree to the statement that they can pretty much determine what will happen in their lives.

**Fig. 42 Distribution of answers to the statement: I can pretty much determine what will happen in my life**



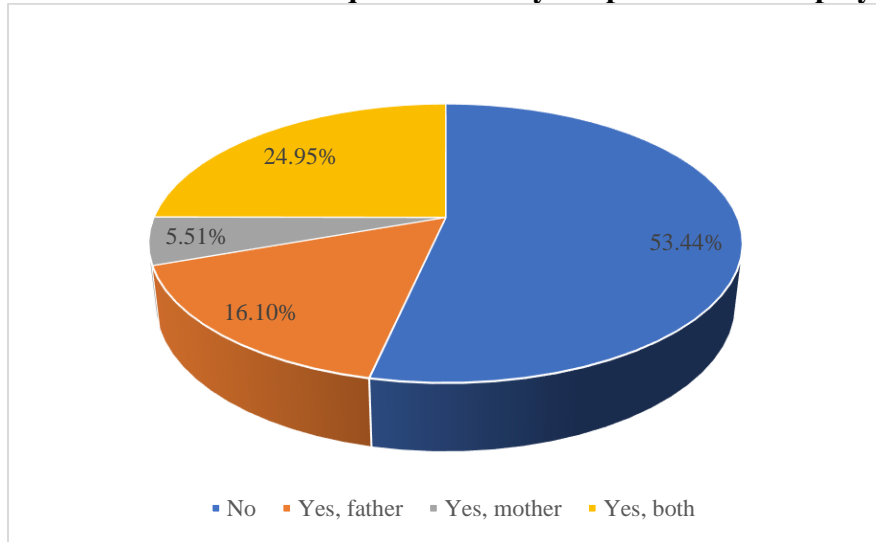
\*1=strongly disagree, 7=strongly agree;

Source: Own elaboration

### 3.5 Family background/society as a whole

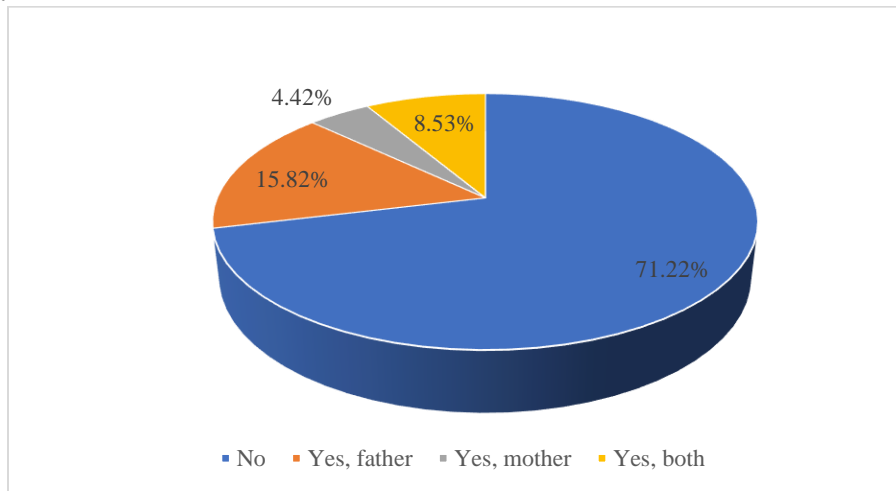
The external environment can influence the decision to pursue a career as an entrepreneur. Thus, the following questions exhibit the perceived reaction of friends, students and family when the decision is made to birth a business. Overall, the presumed reactions of the respective environment seem to be fair. Also, In this section, students were asked if their parents were self-employed. Respondents were then required to response using “No”, “Yes, Father”, “Yes, Mother”, “Yes, both”. From the analysis of their responses, 5.51% of the respondents indicated that “Yes, mother” meaning only the mother is self-employed. 16.10% indicated that “Yes, father” implying that the father is self-employed. 24.95% indicated that “Yes, both” indicative that both father and mother are self-employed. A greater percentage of the respondents (53.44%) indicated with a “No” response suggestive that neither or either parent is self-employed. See Figure 43 and 44 below.

**Fig. 43 Distribution of answers to the question: Are your parents self-employed?**



Source: Own elaboration

**Fig. 44 Distribution of answers to the question: Are your parents majority owners of a business?**



Source: Own elaboration

From the results of the analysis (Tab. 1), students were assessed on a 1-7 scale to indicate “if they would pursue a career as an entrepreneur, how would people in your environment react- Your close family, your friends, your fellow students”. Respondents were asked to assess their level of agreement with the statement on a seven-point Likert scale ranging from “very negatively (1) to “very positively “(7).

**Tab. 1. Distribution of answers to the question: If you would pursue a career as an entrepreneur, how would people in your environment react\* (%)?**

Items	1	2	3	4	5	6	7
Your close family	1.6	2.2	5.7	12.9	17.8	23.6	36.3
Your friends	0.9	1.2	2.7	11.2	16.4	28.6	39.1
Your fellow students	1.4	1.7	5.1	18.8	20.3	24.2	28.5

\*(1=very negatively, 7=very positively)

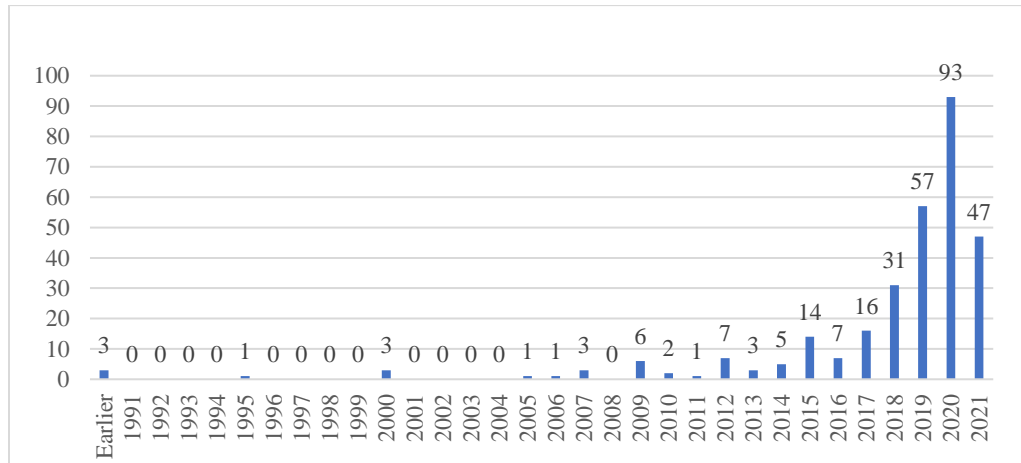
Source: Own elaboration

#### 4. ENTREPRENEURIAL ACTIVITIES

##### 4.1 Active entrepreneurs

301 students indicated that they are active entrepreneurs, meaning that they already own and run their own business. This represents 5% of all students surveyed. The vast majority of companies that were founded by the surveyed students had been in business for only a few years (Fig. 43). The survey also revealed that 44.8% of the respondents were sole proprietors and 23.1% had 1 employee.

**Fig. 45 Year in which business was established**



Source: Own elaboration

From the conducted research on the ownership share in business, 13.29% of the students' respondents had 0-49% (minority owner), 14.20% had 50% which is well in between minority and majority ownership, 72.51% had 51-100% (majority owner). Moreover, the analysis shows the distribution of student responses to the statement "How many co-owners (next to yourself) does your business have?" The results revealed that 65.20% of the respondents had "0" co-owners,



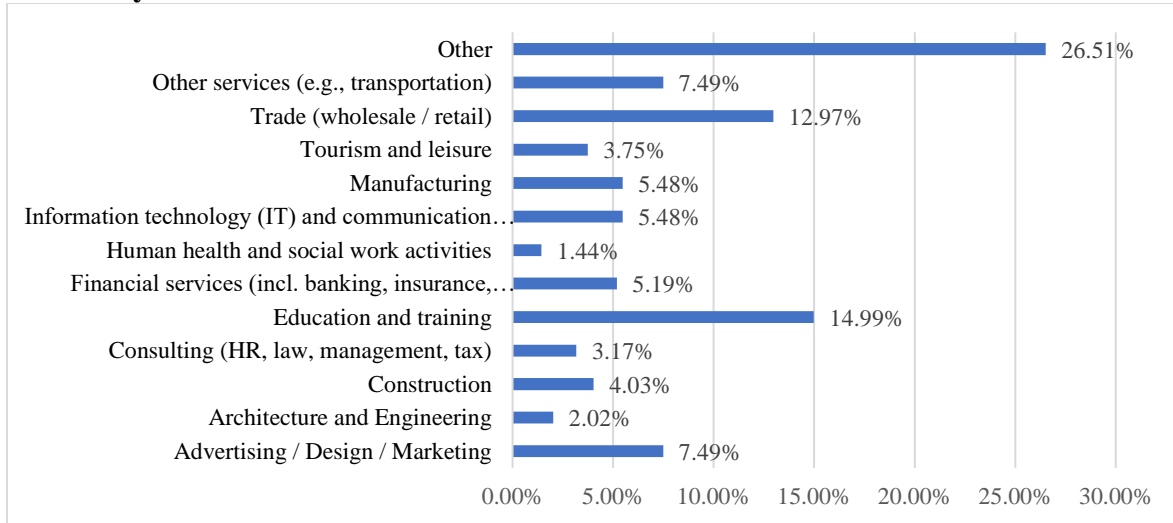
25.73% of the respondents had “1” co-owner, 5.26% of the respondents had “2” co-owners, 1.75% of the respondents had “3” co-owners and 2.05% of the respondents had above “>3” co-owners in their business.

From the conducted research, students were asked to indicate their position on the statement “Do you want this business to become your main occupation after graduation?” with “No”, “Yes” and “Do not know yet” response. 26.76% of the student respondents gave a “No” response indicating that they do not wish their current business to become their main occupation after graduation. 42.25% of the respondents gave a “Yes” response implying that they want their current business to become their main occupation after graduation. 30.99% of the student respondents gave a “Do not know yet” response indicating that at the moment they are unsure as to whether or not they want their current business to become their main occupation after graduation.

From the conducted research, student respondents were asked to indicate their position on the statement “Have you created your business largely because of the implications of the COVID-19 pandemic?” with a “No” or “Yes” response. 82.13% of the student respondents responded with a “No” indicating that their business was not created because of the implications of the global COVID-19 pandemic. 17.87% of the student respondents gave a “Yes” response indicating that their business was created largely because of implications of the COVID-19 pandemic. Moreover, 15.77% students declared that they have created other businesses before and are not just creating a new business for the first. This implies that this category of respondents have more experience in terms of venture management and development. From the conducted research (*See Fig. 44*), respondents were asked to indicate “In which economic sector is your business mainly active in?” with multiple choices from which they can conveniently indicate the economic sector that is associated to their business activity. The results of the analysis revealed the percentages of the economic sectors in which the business activity is mainly active as follows: 7.49% for Advertising/Design/Marketing, 2.02% for Architecture and Engineering, 4.03% for construction, 3.17% for consulting (HR, law, management, tax), 14.99% for Education and training, Financial services (incl. banking, insurance, investment..), 1.44% for Human health and social work activities, 5.48% for Information technology(IT) and communication and Manufacturing respectively, 3.75% for tourism and leisure, 12.97% for trade(wholesale/retail), 7.49% for Other services (e.g transportation) and 26.51% for others aside the individual categorization. The results

revealed that others had the highest ranking in terms of economic sector with most activity which is closely trailed by education and training as well as trade (wholesale and retail).

**Fig. 46. Distribution of answers to the question: In which economic sector is your business mainly active in?**



Source: Own elaboration

Students were also asked about their motivations for starting a business. The distribution of answers is shown in Table 2.

**Tab. 2. Distribution of answers to the statement: I created my firm in order... (%)**

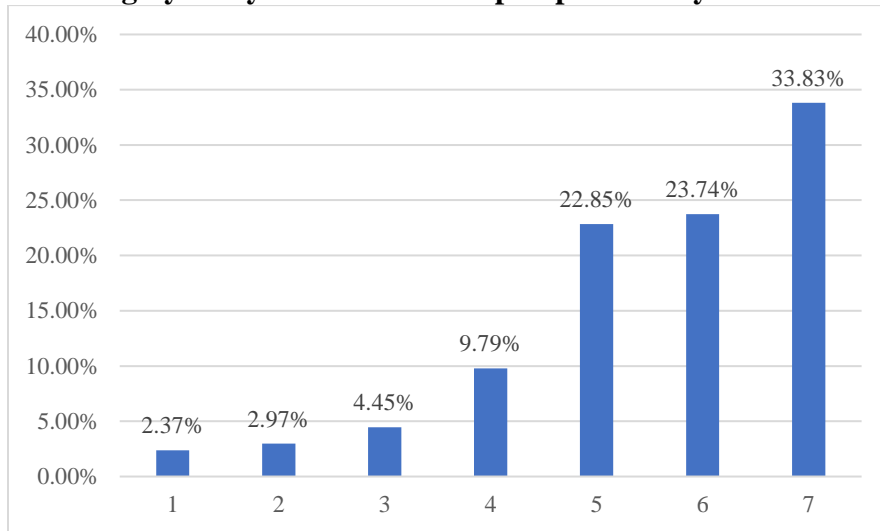
Items	1	2	3	4	5	6	7
to make money and become rich	2.5	2.0	3.6	9.8	17.3	17.6	47.2
to advance my career in the business world	4.6	4.6	5.5	15.5	17.2	18.7	33.9
to solve a specific problem for a group of people that I strongly identify with (e.g., friends, colleagues, club, community)	15.6	8.9	11.2	16.4	15.6	13.3	19.0
to play a proactive role in shaping the activities of a group of people that I strongly identify with (e.g., friends, colleagues, club, community)	15.0	7.5	11.3	19.1	14.2	13.9	19.1
to solve a societal problem that private businesses usually fail to address (such as social injustice, environmental protection)	21.0	11.8	8.9	16.4	12.1	13.2	16.7
to play a proactive role in changing how the world operates.	15.3	10.7	8.9	16.7	14.7	14.1	19.6

1= strongly disagree, 7= strongly agree;

Source: Own elaboration

From the conducted research, respondents were asked to indicate their level of agreement with the statement "I created my firm in order to operate my business on the basis of solid management practices." by using 1-7 Likert scale point to indicate their response using strongly disagree "1" and strongly agree "7". 3.14% of the students' respondents indicated strongly disagree "1", 3.71% of the respondents gave a "2" rating on the 1-7 Likert scale, 4.00% of the students gave a "3" rating, 16.29% gave a "4" rating on the scale indicating a neutral stance on the statement, 21.43% gave a "5" rating on the scale, 20.86% gave a "6" rating on the scale. The category of student respondents with a "7" rating on the 1-7 Likert scale had a 30.57% representation showing that the strongest orientation to operate on the basis of solid management practices. Moreover, respondents were asked to indicate their level of agreement with the statement "As a firm founder, it is very important to me to have thoroughly analyzed the financial prospects of my business." by using 1-7 Likert scale point to indicate their response using strongly disagree "1" and strongly agree "7". 2.37% of the students' respondents indicated strongly disagree "1", 2.97% of the respondents gave a "2" rating on the 1-7 Likert scale, 4.45% of the students gave a "3" rating, 9.79% gave a "4" rating on the scale indicating a neutral stance on the statement, 22.85% gave a "5" rating on the scale, 23.74% gave a "6" rating on the scale. The category of student respondents with a "7" rating on the 1-7 Likert scale had a 33.83% representation indicating that as founders, they thoroughly analyzed the financial prospects of their businesses.

**Fig. 47. Distribution of answers to the statement: As a firm founder, it is very important to me to have thoroughly analyzed the financial prospects of my business.**



Source: Own elaboration

From the conducted research, respondents were asked to indicate their level of agreement with the statement "As a firm founder, it is very important to me to provide a product / service that is useful to a group of people that I strongly identify with (e.g., friends, colleagues, club, community)" by using 1-7 Likert scale point to indicate their response using strongly disagree "1" and strongly agree "7". 5.56% of the students' respondents indicated strongly disagree "1", 7.31% of the respondents gave a "2" rating on the 1-7 Likert scale, 6.14% of the students gave a "3" rating, 12.87% gave a "4" rating on the scale indicating a neutral stance on the statement, 16.675% gave a "5" rating on the scale, 21.93% gave a "6" rating on the scale. The category of student respondents with a "7" rating on the 1-7 Likert scale had a 29.53% representation indicating that as a firm founder, it is very important for them to provide a product / service that is useful to a group of people that they strongly identify with (e.g., friends, colleagues, club, community).

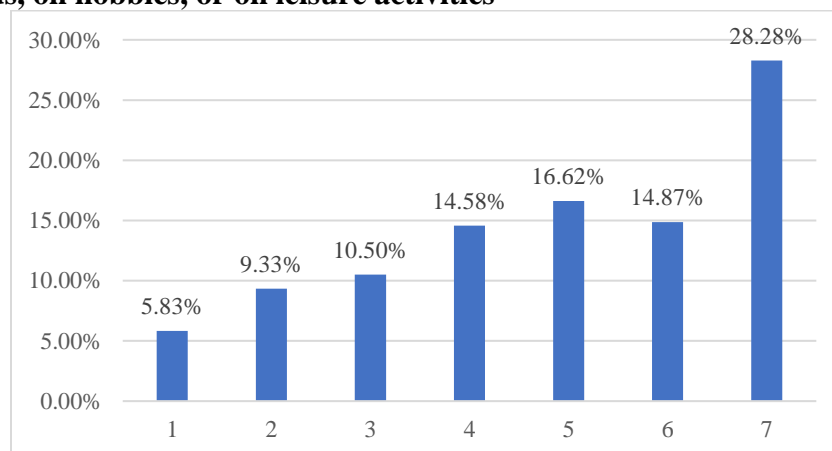
Moreover, respondents were asked to indicate their level of agreement with the statement "As a firm founder, it is very important to me- to be able to express to my customers that I fundamentally share their views, interests and values" by using 1-7 Likert scale point to indicate their response using strongly disagree "1" and strongly agree "7". 6.45% of the students' respondents indicated strongly disagree "1", 4.40% of the respondents gave a "2" rating on the 1-7 Likert scale, 6.74% of the students gave a "3" rating, 17.01% gave a "4" rating on the scale indicating a neutral stance on the statement, 21.70% gave a "5" rating on the scale, 19.94% gave a "6" rating on the scale. The category of student respondents with a "7" rating on the 1-7 Likert scale had a 23.75% representation indicating that as a firm founder, it is very important to be able to express to my customers that I fundamentally share their views, interests and values.

Moreover, from the conducted research, respondents were asked to indicate their level of agreement with the statement "As a firm founder, it is very important to me to be a highly responsible citizen of our world" by using 1-7 Likert scale point to indicate their response using strongly disagree "1" and strongly agree "7". 5.26% of the students' respondents indicated strongly disagree "1", 5.56% of the respondents gave a "2" rating on the 1-7 Likert scale, 6.73% of the students gave a "3" rating, 15.50% gave a "4" rating on the scale indicating a neutral stance on the statement, 16.67% gave a "5" rating on the scale, 21.35% gave a "6" rating on the scale. The category of student respondents with a "7" rating on the 1-7 Likert scale had a 28.95% representation indicating that as a firm founder, the goal is to be a highly responsible citizen of our world.

Respondents were also asked to indicate their level of agreement with the statement “As a firm founder, it is very important to me to make the world a “better place” (e.g., by pursuing social justice, protecting the environment) “ by using 1-7 Likert scale point to indicate their response using strongly disagree “1” and strongly agree “7”. 9.12% of the students’ respondents indicated strongly disagree “1”, 5.00% of the respondents gave a “2” rating on the 1-7 Likert scale, 4.41% of the students gave a “3” rating, 15.88% gave a “4” rating on the scale indicating a neutral stance on the statement, 19.41% gave a “5” rating on the scale, 16.76% gave a “6” rating on the scale. The category of student respondents with a “7” rating on the 1-7 Likert scale had a 29.41% representation indicating that as a firm founder, it is very important to me to make the world a “better place” (e.g., by pursuing social justice, protecting the environment).

Moreover, students were asked to indicate their level of agreement with the statement “as an entrepreneur I spend more time working than socializing with friends, on hobbies, or on leisure activities” by using 1-7 Likert scale point to indicate their response using strongly disagree “1” and strongly agree “7”. 5.83% of the students’ respondents indicated strongly disagree “1”, 9.33% of the respondents gave a “2” rating on the 1-7 Likert scale, 10.50% of the students gave a “3” rating, 14.58% gave a “4” rating on the scale indicating a neutral stance on the statement, 16.62% gave a “5” rating on the scale, 14.87% gave a “6” rating on the scale. The category of student respondents with a “7” rating on the 1-7 Likert scale had a 28.28% representation indicating that as an entrepreneur - I spend more time working than socializing with friends, on hobbies, or on leisure activities.

**Fig. 48. Distribution of answers to the statement: I spend more time working than socializing with friends, on hobbies, or on leisure activities**



Source: Own elaboration

#### 4.2 Responders behaviour as an entrepreneur

Students' perceptions of themselves as entrepreneurs were also examined. The obtained results are shown in Table 3.

**Tab. 3. Distribution of respondents' answers to statements that define them as an entrepreneur**

Items	1	2	3	4	5	6	7
I tend to manipulate others to get my way	16.6	13.8	12.2	14.9	18.8	12.4	11.3
I have used deceit or lied to get my way	27.9	18.9	13.0	12.1	12.4	8.2	7.6
I have used flattery to get my way	22.2	11.6	11.3	12.7	14.7	14.7	12.7
I tend to exploit others towards my own end	30.5	16.2	9.1	16.0	14.0	5.7	8.5
I tend to lack remorse	20.9	19.3	16.3	15.4	11.6	9.4	7.2
I tend to be unconcerned with the morality of my actions	30.4	21.7	13.5	12.7	7.9	6.5	7.3
I tend to be callous or insensitive	48.0	16.2	11.6	8.2	6.0	5.4	4.5
I tend to be cynical	43.6	15.7	7.4	12.3	7.4	6.6	7.1
I tend to want others to admire me	10.2	7.4	11.6	17.9	22.0	12.4	18.5
I tend to want others to pay attention to me	9.0	7.8	12.6	19.3	22.7	12.6	16.0
I tend to seek prestige or status	9.3	7.6	10.1	14.3	21.9	16.3	20.5
I tend to expect special favors from others	29.5	22.2	15.1	11.9	8.2	4.5	8.5

1= strongly disagree, 7= strongly agree; Source: Own elaboration

Furthermore, the results revealed that students who were entrepreneurs generally had strong family support. The mean values of the declared responses are shown in Table 4 .

**Tab. 4. Distribution of respondents' answers in relation to the presented statements**

Items	Mean
When I have a problem at work, members of my family express concern	4.2
When I am frustrated by my business, someone in my family tries to understand	4.5
Members of my family are interested in my business	4.8
When I talk with them about my business, family members do not really listen	3.0
Family members often contribute to my business without expecting to be paid	3.8
I can count on my family members to fill in for me and/or my employees if needed	3.8
My family gives me useful feedback about my ideas concerning my business	4.3
Family members often go above and beyond what is normally expected in order to help my business succeed	3.7
Members of my family often help me with my business	3.8

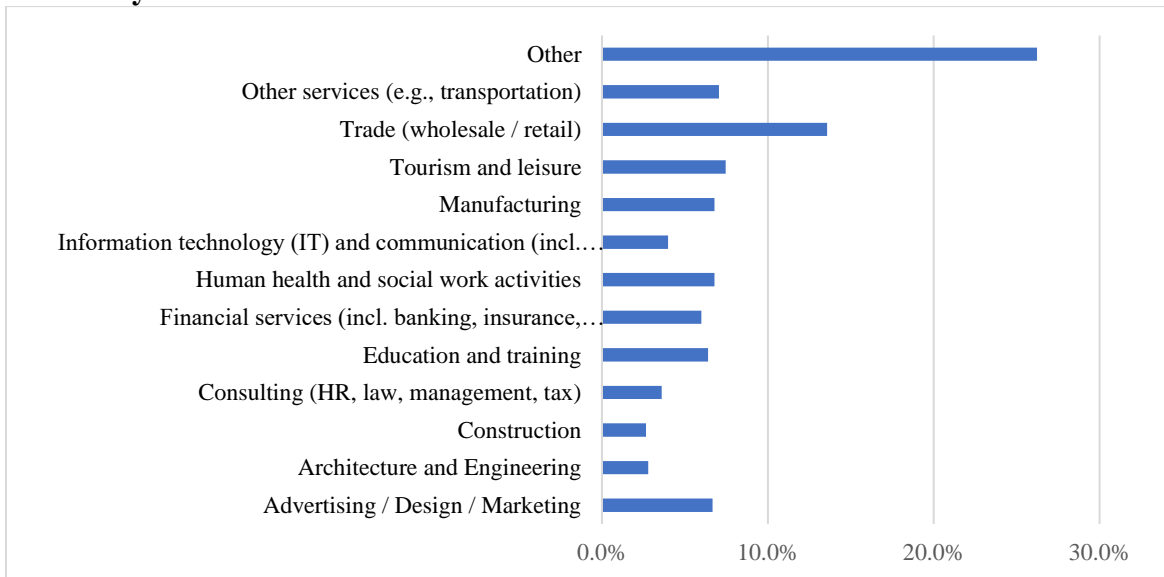
1= strongly disagree, 7= strongly agree;

Source: Own elaboration

### 4.3. Students Who Planned Their Own Business

The survey also included students' plans in terms of starting their own business. According to the survey, 19.9% of the students declared that they would start a business during their university studies while 13.4% immediately after graduation. As many as 54.7% of the respondents were going to start a company on their own while 38% with 1 co-founder. Moreover, 57.3% of the surveyed students assumed that business activity would become their main occupation after graduation. However, 77% of the surveyed students indicated that this start-up project emerged largely independently of the university. Only 23% of the surveyed students stated that their business idea was related to a university course (6.6%) or another university-related form (15.6%). When asked to choose one of the alternatives in terms of their planned business activity, the respondents more frequently indicated "increasing the value of this business as much as possible" (54.7%) compared to "maintaining maximum ownership and control of this business" (45.3%). Fig. 49 indicates in which areas the surveyed students plan to start their business.

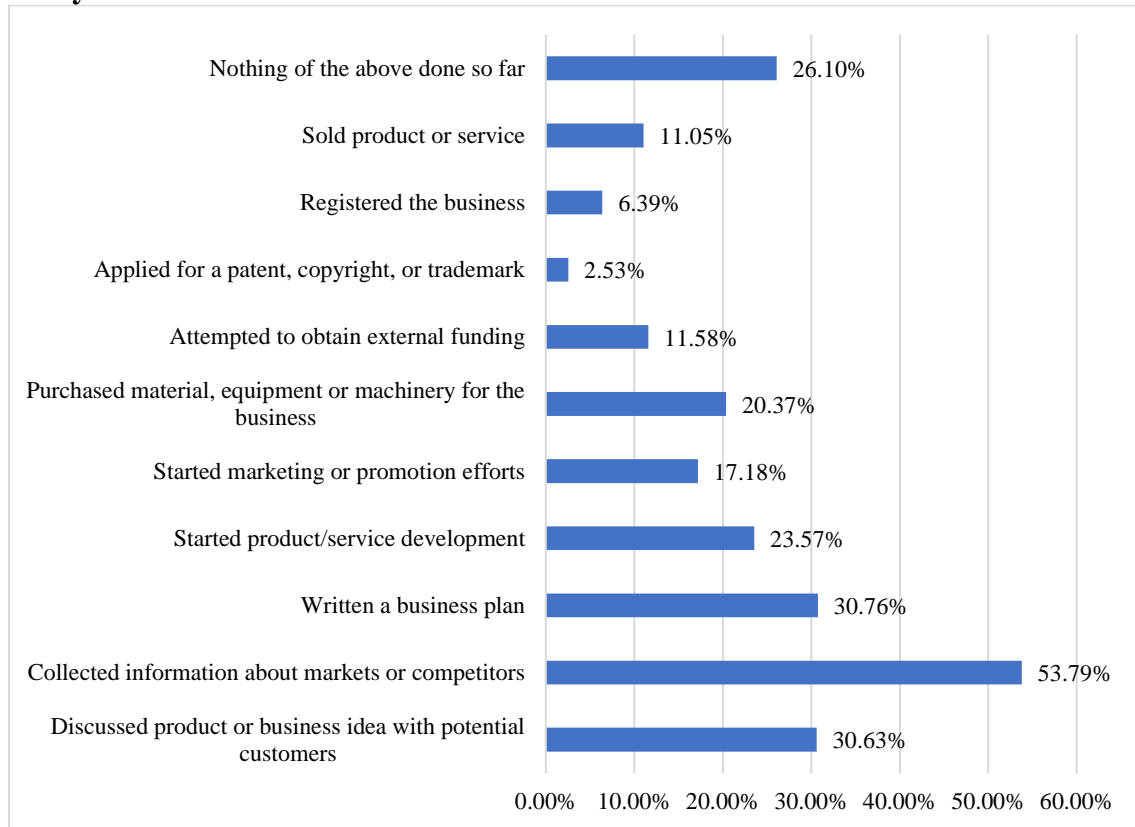
**Fig. 49. Distribution of answers to the question: Which economic sector will your business be mainly active in?**



Source: Own elaboration

The students were also asked to indicate which activities they (or somebody else from the founding team, if applicable) already carried out to start their own business. The results are shown in Fig. 50.

**Fig. 50. Distribution of answers to the question: Which of the following activities have you (or somebody else from the founding team, if existing) already carried out in order to start your own business\***



\*(multiple answers possible)

Source: Own elaboration

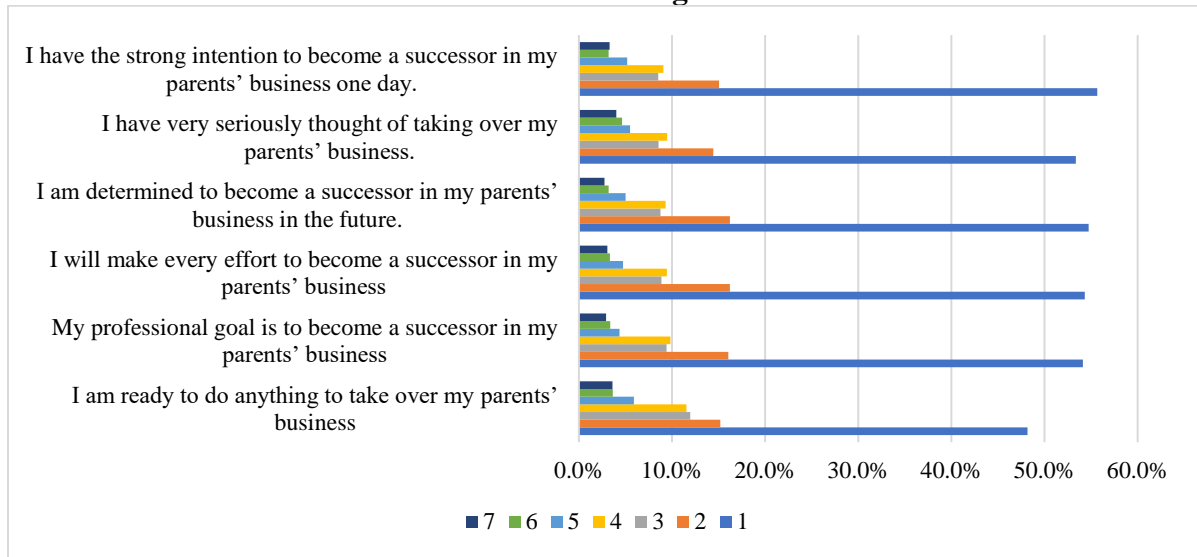
#### 4.4 Entrepreneurship of Parents

According to the surveyed students' declarations, until 1989 – the fall of communism in Poland – their parents ran a total of 126 businesses, which constitutes 8% of all businesses that were declared by the respondents in the survey. In 1990–2003, i.e. during the period of major political changes in Poland and during the period of EU accession, 645 businesses were established that were run or co-run by the respondents' parents (41%). From 2004 – the year in which Poland joined the EU – up to the moment of conducting the survey, the respondents declared the establishment of 806 companies, which constitutes 51% of all companies run or co-run by their parents. This indicates that these are relatively new companies where the first succession is likely to occur. In most cases, these are microenterprises with 1 (30.2%) or 2 (16.4%) employees.



In 67% of cases, the respondents' parents (father and/or mother) run the business operationally. However, 94% of the surveyed students declared that they did not have any personal ownership stake in the business. On the other hand, 39% of the surveyed students revealed that they were employed in their parents' business. In addition, as Figure 49 indicates, the vast majority of the surveyed students were not particularly strongly focused on business succession activities.

**Fig. 51. Distribution of answers to statements concerning succession\***



\*(1- strongly disagree; 7-strongly agree);

Source: Own elaboration

The students were also asked to evaluate their parents' company in selected aspects in terms of competition. The results are shown in Table 5.

**Tab. 5. Distribution of answers to the question: How do you rate the performance of your parents' business compared to its competitors over the last three years in the following dimensions?**

Items	1	2	3	4	5	6	7
Sales growth	7.5	4.9	11.1	29.6	23.5	15.1	8.2
Market share growth	8.2	6.3	12.3	33.1	20.7	12.1	7.3
Profit growth	7.5	5.5	10.5	28.8	22.3	16.3	9.1
Job creation	24.7	11.7	12.8	27.5	11.0	7.2	5.1
Innovativeness	13.2	9.2	13.2	27.3	18.5	11.1	7.6

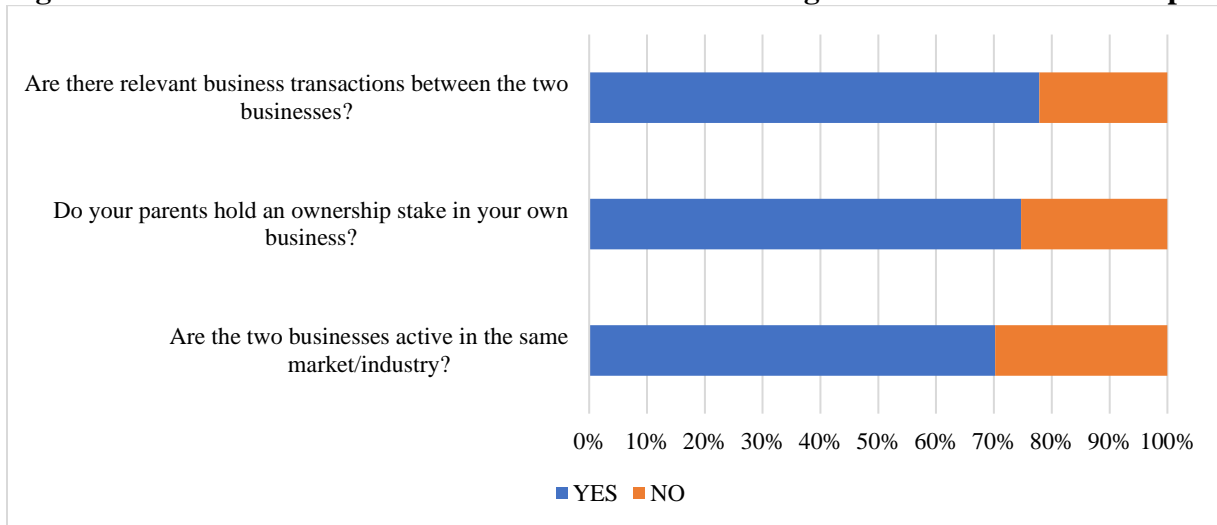
(1=much worse, 7=much better);

Source: Own elaboration

Particular attention should be paid to the strong connections that were declared by the majority of the surveyed students between the company run or co-run by their parents and their own business

(Fig. 52). This indicates once again that family can provide the "base" in the development of a business.

**Fig. 52. Distribution of answers to the statements concerning connections between companies**



Source: Own elaboration

## 5. CONCLUSIONS AND RECOMMENDATIONS

This survey aims to determine the entrepreneurial intentions and actions taken among students studying in Poland.

In summary, the presented (limited) survey findings reveal that:

- 5% of the surveyed students are currently self-employed;
- 16.8% of the total number of the respondents declare their willingness to start their own business immediately after completion of their university studies;
- 34.4% of the respondents declared that they would establish a business within 5 years after university studies;
- 13.9% of the respondents declared a very high willingness to take risks when choosing a job or a company to work for, which – with a low percentage of indications of perceiving risk at work as a situation to be avoided at all costs (6% of answers: "very much") – indicates relatively high acceptance of risk in terms of doing business by the respondents;
- the most frequently stated reason for establishing a business was money earning and a willingness to become rich (47.2% of the respondents strongly agreed), however, 43.1% of the surveyed

students admitted (agreed or strongly agreed) that they spent more time on work than on socialising with friends, their hobbies, leisure activities.

- however, only 6.1% of the respondents chose the answer "very much" to the statement "There is a favourable climate at my university for becoming an entrepreneur";
- every fifth student (20.7% of the respondents) neutrally assessed their university in terms of encouragement of students to engage in entrepreneurial activities; only 8.5% of the respondents agreed that their university highly encouraged students to engage in entrepreneurial activities;
- according to every tenth student (10.5% of the respondents), their university significantly improves, facilitates and supports working with local authorities/businesses to secure employment for all students (simultaneously, 7% of the surveyed students declared that their university did not support them in this area at all);
- only 7.6% of the surveyed students stated that courses they took greatly increased their understanding of entrepreneurial attitudes, values and motivations, while 11% did not notice such a link at all;
- 59% of the surveyed students have not attended a course on entrepreneurship so far;
- a career as an entrepreneur is attractive for 26.6% of the surveyed students (they agreed or strongly agreed);
- 17.9% of the surveyed students stated that their business was created largely because of implications of the COVID-19 pandemic, which indicates their adaptability to changing market conditions.

The factors for stimulating an entrepreneurial spirit among students can be found in various areas of life. The labour market situation is certainly one of these factors. The SARS-CoV-2 outbreak in Poland and introduction of several COVID-19-related restrictions, including those concerning movement and business activities, have disrupted the previously favourable labour market trends in Poland. The COVID-19 pandemic has had a negative impact primarily on the employment situation of young people. However, as Statistics Poland (2021b) indicates, the youth unemployment rate continues to be very low at 3.3% in 2019 and 3.2% in 2020. Therefore, it should be assumed that the entrepreneurial intention that is observed among students in Poland is motivated by opportunity rather than necessity. Currently, it seems that in order for students to display entrepreneurial attitudes, it is not enough to have appropriate legal regulations, easy access to modern technology and funds for financing activities – a socio-cultural "climate" that enables

young people to identify and take advantage of opportunities is also necessary. Universities and widely understood material institutional infrastructure play a special role in terms of forming this "climate." Entrepreneurial behaviour is typical of naturally gifted individuals who, however, have simultaneously developed their innate aptitude through the learning process. Furthermore, as the survey results indicate, the family and the closest environment play a significant role in this aspect.

The dynamically changing reality forces changes in the education process. The collaboration between universities and the private sector in this regard now seems to be an obvious necessity. In many cases, the problem lies in the paucity of these collaborations and the quality of the university's links with the private sector. According to the surveyed students, to a large extent this results in a lack of, in their opinion, effective measures to build entrepreneurial attitudes and encourage people to start their own business.

Solutions that systemically encourage universities in Poland to create strong links with the labour market include the Polish Graduate Tracking System (ELA) and the implementation doctorate programme. The nationwide ELA system, which has been operating in Poland since 2016 and is based, among others, on data obtained from the Social Insurance Institution, is indirectly a tool for building a favourable image of the university precisely in this regard. On the other hand, the possibility of obtaining a doctoral degree under the implementation doctorate programme (from 2017) is supposed to support innovation by facilitating cooperation between business and universities as well as scientific and research institutes. The doctoral dissertation prepared under the implementation doctorate programme is designed to improve the operations of a specific company or solve a technological problem facing the company that employs a doctoral student. For universities, it is also an opportunity to make contacts that can support the widely understood teaching process. This is because the practical nature of education (especially at the undergraduate level) should be seen as one of the most important factors that foster the formation of entrepreneurial attitudes and taking entrepreneurial activities among students and graduates in Poland.

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