

Entrepreneurship Ambitions of BUas students

Study year 2020-2021



DISCOVER YOUR WORLD



Breda
University
OF APPLIED SCIENCES

Preface

Entrepreneurship represents an important value for the economy. After all, entrepreneurs create jobs. Research within the Global Entrepreneurship Monitor (GEM, 2019) shows that countries in which entrepreneurship is supported by society tend to be more prosperous and competitive. Entrepreneurship stimulates innovation, knowledge growth, sustainability, and international cooperation. In particular, ambitious entrepreneurs contribute to job growth, innovation, and exports. The current economic developments therefore require employees to adopt an independent and proactive, entrepreneurial attitude with responsibility for the organisation; education plays an important role in this (Ondernemend.nu, 2020).

Within Breda University of Applied Sciences (BUas) much attention is paid to entrepreneurship. Both entrepreneurship and entrepreneurial attitude are part of the central educational vision of BUas and part of our DNA.

Entrepreneurship remains an important pillar of Dutch society and at national and regional level, government funded, initiatives that encourage and stimulate entrepreneurship are in place. In higher education too, entrepreneurship is an integral part of curricula. This development has stimulated the curiosity of researcher Adriaan van Liempt and coordinator of entrepreneurship education Tijs van Es about the status of entrepreneurial ambitions within the ranks of BUas.

This research offers the organisation insight into the entrepreneurial ambitions of our students within BUas and can follow this development over the years. Thanks to this research, valuable insights have been created that are used to continuously improve entrepreneurship education and to provide support for students with start-up ambitions.

Thanks to our consortium partners from the regional network Braventure (www.braventure.nl) and particularly Avans University of Applied Sciences for sharing their experiences in conducting this research.



Tijs van Es



Coordinator Entrepreneurship Education
Breda University of applied sciences

Contents

Preface	1
Contents	2
Summary	3
1 Entrepreneurship ambitions among BUas students	4
2 Methodology	5
2.1 Data analysis	5
2.1.1 Data from academic years 2018-2019 and 2019-2020	5
3 Results	6
3.1 Response	6
3.2 A BUas wide look at students' entrepreneurial ambitions	7
3.2.1 Comparing entrepreneurial ambitions of students at BUas over the period 2018-2020	8
3.3 A closer look at entrepreneurial ambitions of BUas students	8
3.3.1 Entrepreneurial ambitions per BUas domain	8
3.3.2 Entrepreneurship by year of registration	9
3.3.3 Entrepreneurship ambitions and the impact on study progress	10
3.3.4 Entrepreneurship at BUas controlled for study delay	11
3.4 Demographic outlook of entrepreneurial ambition	12
3.4.1 The influence of age on interest in entrepreneurship	12
3.4.2 The influence of gender on entrepreneurial ambitions	13
3.4.3 The influence of nationality on interest in entrepreneurship	15
3.5 Stability and change in entrepreneurial ambition of Cohort 2018-2019	17
3.5.1 Changes of Cohort 2018-2019 in their first year	17
3.5.2 Changes of Cohort 2018-2019 in their second year	18
3.5.3 Cohort 2018-2019: plotting dynamics	20
4 Concluding	22
4.1 Conclusion and discussion	22
4.2 Suggestions for further research	22
5 References	24
6 Appendix	25
7 About the author	26

Summary

This study aims at answering two questions related to BUAs students' interest in starting/owning a business and whether this interest changes during their study. The first question is answered by looking at figures extracted from BUAs internal database. The second question is predominantly answered by following a specific cohort (Cohort 2018-2019) over several years. This cohort has been followed for two years now and trends and patterns are emerging from the data. Students' preferences stabilize in the sense that they are more certain in what direction they are moving. Fewer students have doubts. In general, the inclination to start a business declines for this cohort.

Entrepreneurial ambitions of BUAs students in study year 2020-2021

BUAs wide 16.1 percent of the students indicate they are interested in starting a business in study year 2020-2021. Exactly 4.0 percent has already started a business during their study, 2.4 percent plans to do so whilst they are still studying and 9.7 percent plans to do so after their study. 50.7 percent of the students is uncertain whether they want to become entrepreneurs and 33.2 percent is certain they do not. Compared to study year 2018-2019, these figures have changed in favor of those that have optimistic entrepreneurial ambitions for two years in a row now.

The above figures are slightly biased towards favoring entrepreneurship as 41.5 percent of the group of students that own a business already during their studies, is defined by students that have a mild to severe study delay. The effect is not severe. After correcting, 15.5 percent of the students have positive ambitions and the percentage of students that has already started a business drops to 2.8 percent. All other categories stay relatively close to uncorrected figures.

A closer look at the eight domains BUAs offers studies in, shows that there are noticeable differences. Particularly the domains of Media, where 23.9 percent of the students thinks that they will start a business at some point, Hotel and leisure & Events deviate positively from the overall BUAs figures. Facility, Logistics, Games, Tourism and Built Environment all deviate negatively in terms of student entrepreneurial ambition from the overall BUAs figures.

Those that have started a business during their studies tend to take more time to graduate than students that do not have a business. Whilst the relative number of students that is an entrepreneur during their studies rises, fewer students are interested in starting a business after their studies as their study progresses. Being an entrepreneur means that on average students acquire fewer ECTS annually on average, which translates to being enrolled for more extensive periods of times and them being older on average.

Gender also has an important effect on ambitions. Though overall the ambitions do not deviate as strongly. For instance, planning on starting a business after their studies is not very different between males and females, owning a business during their study, or planning to do so whilst studying is. Here males dominate quite strongly. This effect is seen in all domains. Even in domains where females make up close to or more than 70 percent of the student population.

Nationality also seems to influence the outcomes. Students with a non-Dutch nationality tend to entertain the thought of becoming an entrepreneur more so than Dutch students. However, these figures are biased towards those that plan to start a business after their study. Here also differences between the various domains can be discerned. It is mostly those international students within the domains of media, Games and Logistics that plan on starting a business.

Cohort 2018-2019: Developments in entrepreneurial ambitions of BUAs students

When following a group of students more closely, it is striking that many of the students (26 percent in 2019-2020 and again 24 percent in 2020-2021) have changed their entrepreneurial ambition over a year. Looking more closely at one group of students, one that is characterized by being relatively younger and still at the start of their study career, shows that they are become more certain of their choices over time. Although there is a countertrend towards the overall figure, which favor a trend towards entrepreneurship, this cohort is slowly becoming more aware of their options. Perhaps also because they know more about themselves and who they are.

1 Entrepreneurship ambitions among BUAs students

In college year 2018-2019, a project started to monitor the interest in entrepreneurship of students of Breda University of Applied Sciences (BUAs in short) (Van Liempt & Van Es, 2019, 2020). Similar studies had already taken place at Saxion and Avans (cf. Rovers, 2016) and this study started with the same basic question as the other studies: "Are you planning to start your own business?". One simple question that aims to monitor students' interest and ambition to start their own business. One of the main reasons to monitor students' ambitions in entrepreneurship is to get a clearer picture of our students overall. As educational institutions we tend to focus on preparing people for the work field, to become employees, without assuming students might want to employ themselves, or even become employers. Or as Borbye (2010) suggests to get out of our own comfort zones and adapt the way we teach more in line with students' wishes, interests and abilities.

This is already the third year in which data was collected. By no means, an ordinary year due to Covid-19. One of the key questions which the current survey can answer is whether the pandemic so far, has had an impact on student's ambitions. The main results from the previous years can be summarized as following: overall, approximately 16% of the students have plans to start a business during or after their studies or have already started a business. This percentage is different for the various BUAs domains. Both sex and whether or not a student has a Dutch origin, influences the statistics.

The overall goal of these studies is to gather insights in order to support both students and entrepreneurship education at BUAs in their goals and ambitions. Data used in this publication was collected at three points in time (each time in November) over a period of three years, 2018, 2019 and, again, in November 2020. The report itself reports on study year 2020-2021 and pays special attention to a cohort of students that started studying in 2018-2019. By following a cohort during their study, we hope to get a better look at the development in entrepreneurial ambition over the years during the time students try to finish their study.

Reporting is thus limited to an analysis of quantitative data that was available during the registration process. No interviews were held, nor were external sources and publications consulted to reach conclusions about students' motivations to become entrepreneurs. This report is thus a description of the situation at a point in time in November 2020.¹

¹ The authors would like to thank Tom Konings from Team Control at BUAs for providing the data and answering many questions.

2 Methodology

This study aims to answer the following research questions:

1. To what extent are BUAs students interested in becoming entrepreneurs?

And, based on cohort data of students that started their studies in study year 2018-2019:

2. How does the interest of students in becoming an entrepreneur develop over the course of their study at BUAs?

The question asked to students has been used in other studies and has been copied from Rovers (2016), which itself has used the question from a comparable study by Saxion to which Rovers (2016) refers. Using the same question allows us to compare the results of these various reports to one another. The question used in these studies is phrased in the following manner: "Do you intend to start your own business?". The following answer categories were available for students in both Dutch and English:

- > No.
- > Maybe.
- > Yes, after my studies.
- > Yes, during my studies.
- > Yes, I have already started my own business.

2.1 Data analysis

Data of all students enrolled and active on 2 October 2020 has been imported from the central student administration system and was cleaned in R (R Core Team, 2020) in the R-studio environment (RStudio Team, 2020). The following packages were used for cleaning and reporting data: 'haven', 'readxl' and 'writexl' for importing and exporting datasets (Ooms, 2020; Wickham & Bryan, 2019; Wickham & Miller, 2020), 'psych' for data manipulations (Revelle, 2020); 'lubridate' for date calculations (Grolemund & Wickham, 2011); and, finally, 'summarytools' for descriptive purposes (Comtois, 2020). The analyses reported on in this study involved the data of 7,520 students. After a check for double enrolments, 7,159 students were included in the final dataset. In the report, however, occasionally a total number (N) of 7,156 respondents is reported because of missing data.

The analyses are solely descriptive in nature (frequencies and percentages). Techniques that are used include frequency tables and cross tables. In most cases, these tables were exported to Excel, where they were processed into tables and figures that could be used in this report. Sankey diagrams have been used to visualize the year-to-year aggregate changes in entrepreneurship intentions of the 2018-2019 student cohort. These were generated with SankeyMATIC (SankeyMATIC, 2014) and further edited in Adobe Illustrator (25.1) before being imported into this report.

2.1.1 Data from academic years 2018-2019 and 2019-2020

In some cases, such as the cohort analysis, data from the study year 2018-2019 (N=7,049) and 2019-2020 (N=7,060) is used. These data were collected in November 2018 and November 2019, respectively.

3 Results

In the following sections both the total response as well as answer to the main research question 'Are you planning to start your own business?' will be discussed. We will also try to make a comparison with last year's results. A deeper, more thorough, analysis, which allows us to make a trend analysis, will only be possible after we have collected data of more than two years. Finally, students' plans to start their own business is analysed in relation to their domain, sex, and nationality.

3.1 Response

The total number of students studying at BUAs has been quite stable over the previous years but saw a mild influx in 2020. Almost 8 percent of the students is enrolled in more than one program. The figures in the report, however, are limited to a student's main study. Figure 1 below provides an overview of the main demographic features of our students. They are sex and nationality.

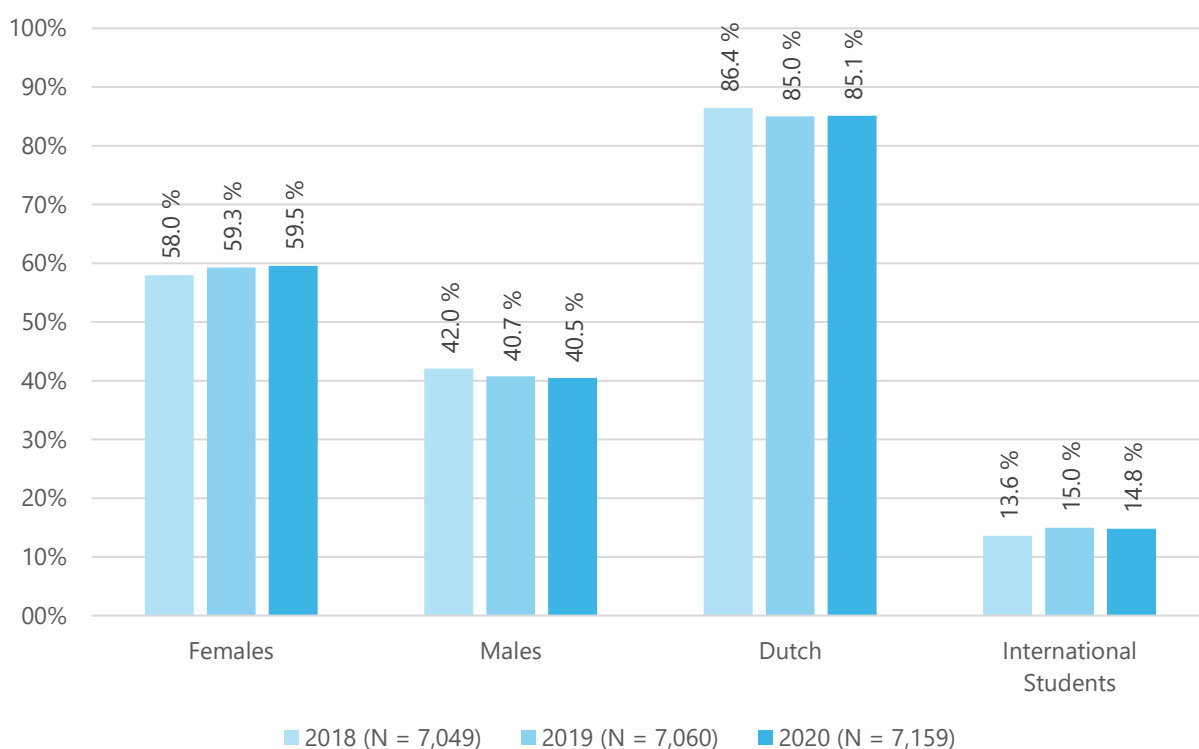


Figure 1 Response study years 2018-2019 to 2020-2021

The relative number of women studying at BUAs is close to 60 percent. BUAs offers several large study programs such as Leisure and Tourism, where women are overrepresented. The relative number of international students (students that are not listed as Dutch) remains around 15% of the total population. Covid-19 does not appear to have had an overly negative impact on the influx of international students to BUAs. In absolute figure they have remained stable to the previous study year (N= 1,058).

3.2 A BUAs wide look at students' entrepreneurial ambitions

This study's central question is: "Are you planning to start your own business?". In Figure 2 and Figure 3 below, this question is answered. Figure 2 shows that 16.1 percent of the student intent to, or have already started, a business in 2020. The type or form of business students have in mind, is unknown. Figure 3 shows that, compared to 2018, there seems to be a small overall increase in interest in starting a business.

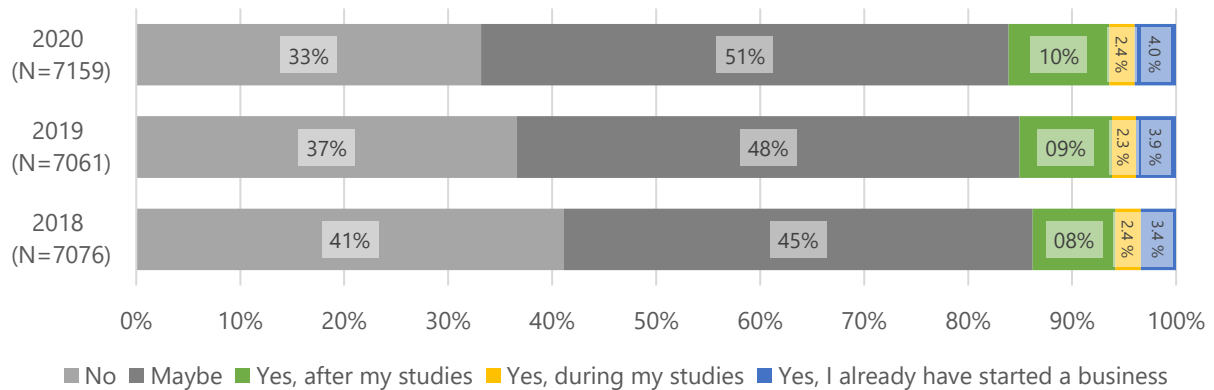


Figure 2 Three years of entrepreneurial intention of students at BUAs 2018-2020.

As Figure 2 demonstrates, more than 16 percent of our 7,159 students indicate an interest in starting a business. 4.0 Percent has already started a business, 2.4 percent thinks about starting a business during their studies and the largest share, 9.7 percent, aims to start a business after their studies. More than 50 percent of the students indicated that *maybe* they will start a business somewhere in the future.

The nature and direction of the study, as well as developments of the labour market, will probably influence students' decisions. At the same time, it is difficult to assess whether the percentages mentioned in this study are high or low, because there is no proper frame of reference to compare the figures to. Would we compare the numbers to Windesheim University of Applied Sciences (Corré, 2016) where 10 percent of the students is an entrepreneur, then we might conclude that 4.0 percent is comparably low. However, when the figures would be compared to Avans University of Applied Sciences, where a percentage of 2.8 was reported in 2016 (Rovers, 2016), then probably we might conclude our students are slightly more entrepreneurial on average. The above figures show interesting differences later on when compared to the various knowledge domains BUAs hosts.

3.2.1 Comparing entrepreneurial ambitions of students at BUAs over the period 2018-2020

Figure 3 compares entrepreneurial ambitions of BUAs students over the years. The figures appear to be rather stable relatively, but in absolute terms the increase is more notable: 1154 in 2020 compared to 977 in 2018.

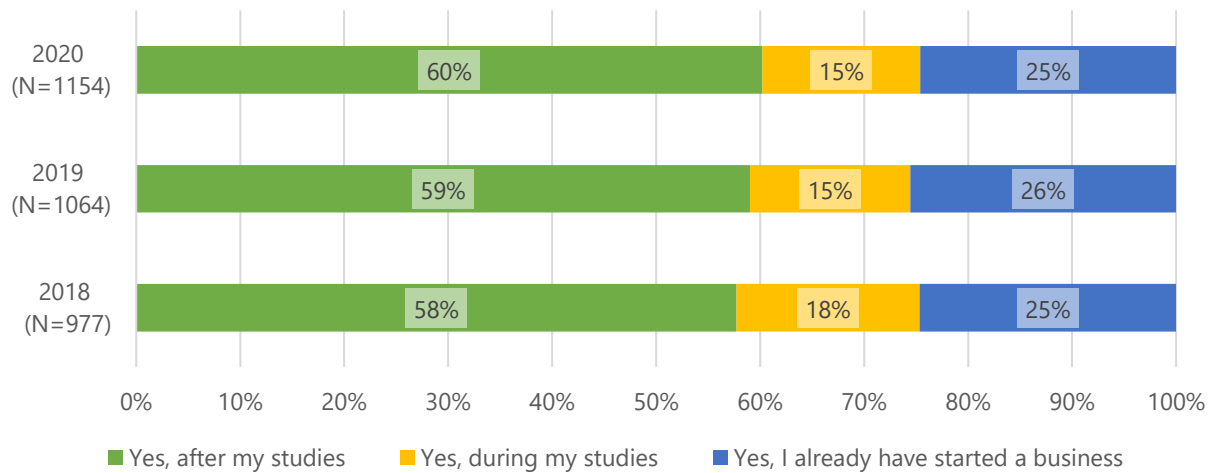


Figure 3 Three years of positive entrepreneurial intention of students at BUAs 2018-2020.

3.3 A closer look at entrepreneurial ambitions of BUAs students

The following sections try to relate students' choices to some of their properties such as the domain in which they study, how long they have been studying at BUAs and the extent to which this impacts their study progress.

3.3.1 Entrepreneurial ambitions per BUAs domain

BUAs is active in eight different domains. Figure 4 shows that there are considerable differences in entrepreneurial intentions per domain. First of all, it should be noted that the categories 'no' and 'maybe' are not considered in this figure. By excluding these two categories we get a better insight into the actual differences between domains. The domains in the graph are arranged according to the total relative percentage of students within an academy who intend to start a business or have already started one.

As was the case in the previous years, from a BUAs-wide perspective, three domains, Leisure & Events, Hotel and Media, stand out in terms of students having entrepreneurial ambitions. In the other five domains students seem to be less interested in becoming entrepreneurs. There is probably a logical explanation for the variance in entrepreneurial ambitions amongst students in the various domains. It seems likely that working in a domain like Media often means people become entrepreneurs. Looking at national statistics provided by CBS (see Table 3) 77 percent of the businesses in the Netherlands employ one person. This is less common in the hospitality industry and more common in the media industry. Because the leisure industry is looser, it was more difficult to determine this for the leisure and events domain from CBS data.

Even though students within the Hotel domain seem interested in becoming entrepreneurs, the percentage of students who have already started a business is considerably lower compared to Leisure & Events and Media. This is very likely because their business is less likely to be combined with a study. From the latter point of view, it seems to make sense that fewer students seem interested in combining a study with an education. Most of the students indicate they think they will start their business after their studies.

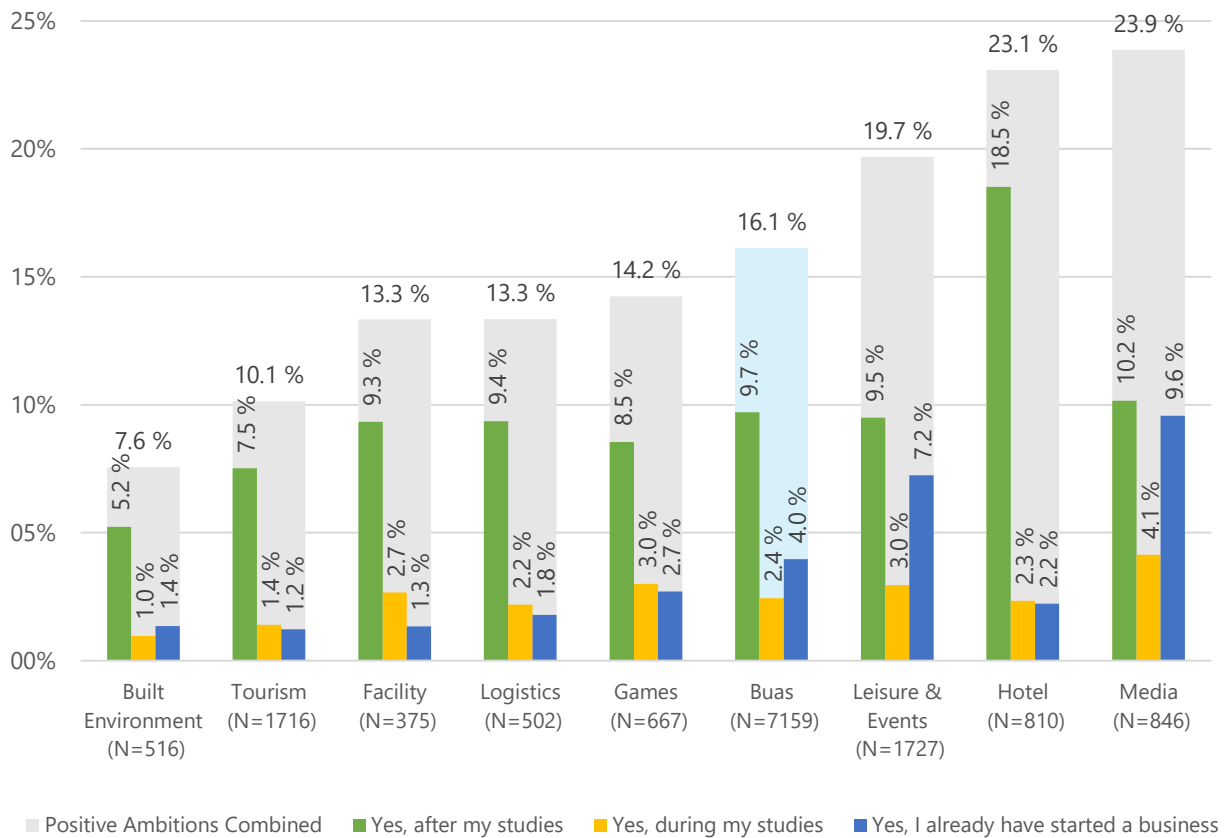


Figure 4 Positive entrepreneurial ambitions per BUAs domain at the start of study year 2020-2021 (N=7,159)

3.3.2 Entrepreneurship by year of registration

In order to determine whether there is a relation between year of registration and intention to become an entrepreneur, Figure 5 has been generated. In terms of structure, this figure is the same as the previous figure with the difference that the N mentioned per year indicates the total number of students enrolled as active students since that year. This number drops considerably after the first year but remains relatively steady during the next three years. Keeping in mind that most studies at BUAs take four years, it is a logical picture.

When considering the students' ambitions, the trend is interesting as there is a pretty firm relation between study delay and having started a business during their studies. The patterns for the other two categories are less pronounced. Students appear to be less inclined to start a business when their study lasts longer, but this may be explained by the fact that they have already started a business.

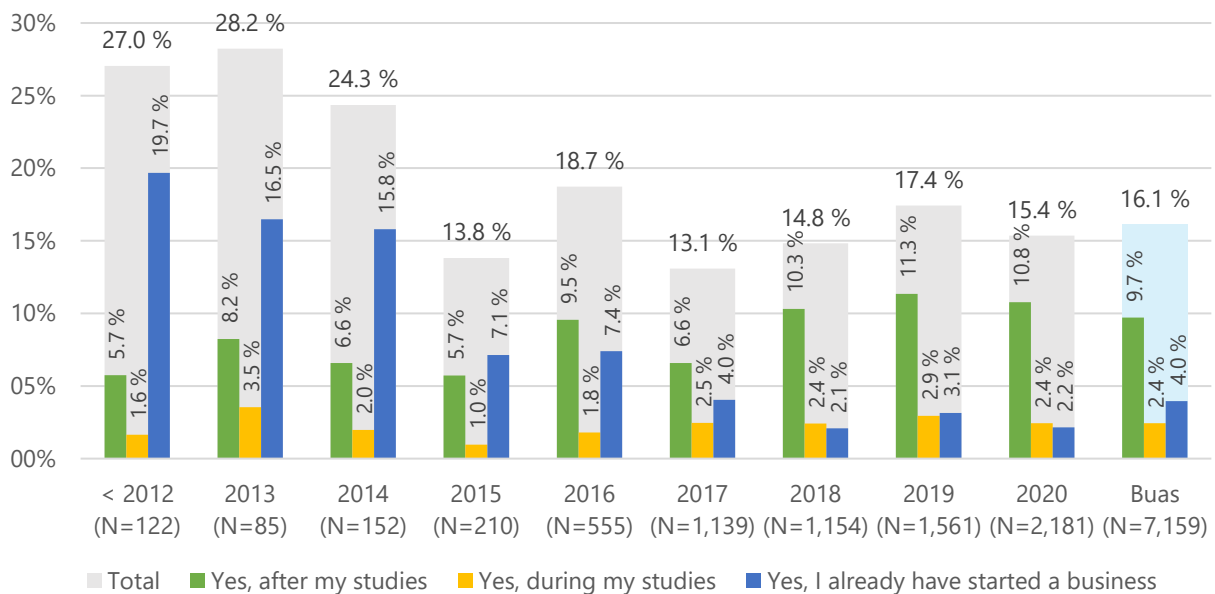


Figure 5 Positive entrepreneurship ambitions of BUAs students by year of registration at the start of study year 2020-2021 (N=7,159)

3.3.3 Entrepreneurship ambitions and the impact on study progress

In the previous section the relation between the number of years a student is studying at BUAs and entrepreneurial ambitions was shown. In the below Figure 6 a closer look is taken at the average number of ECTS students acquire on average. The total N of this population in this figure is 4,978 rather than 7,159. This is because only BUAs students have been included that have studied at BUAs for a minimum of one year. First year students and students of one-

year programs are thus not included. Again, the three groups with positive entrepreneurial ambitions have been compared to the total of BUAs. The figure, essentially a boxplot, shows four student quartiles.

Most of the students that have not started a business whilst studying, tend to have a median close to 56 ECTS, which is logical as these students have not graduated yet and the required number of annual ECTS is 60. In most cases, thus, students tend to be on par with what is expected of them. Looking at the group of students that have indicated they have started a business already during their studies, the spread, demonstrated by the second and third quartiles, up and above the median, is much bigger. Also, the median itself is much lower at 43 ECTS. This result is at odds with this particular group of students taking longer on average to graduate than regular students that do not run a business next to their studies.

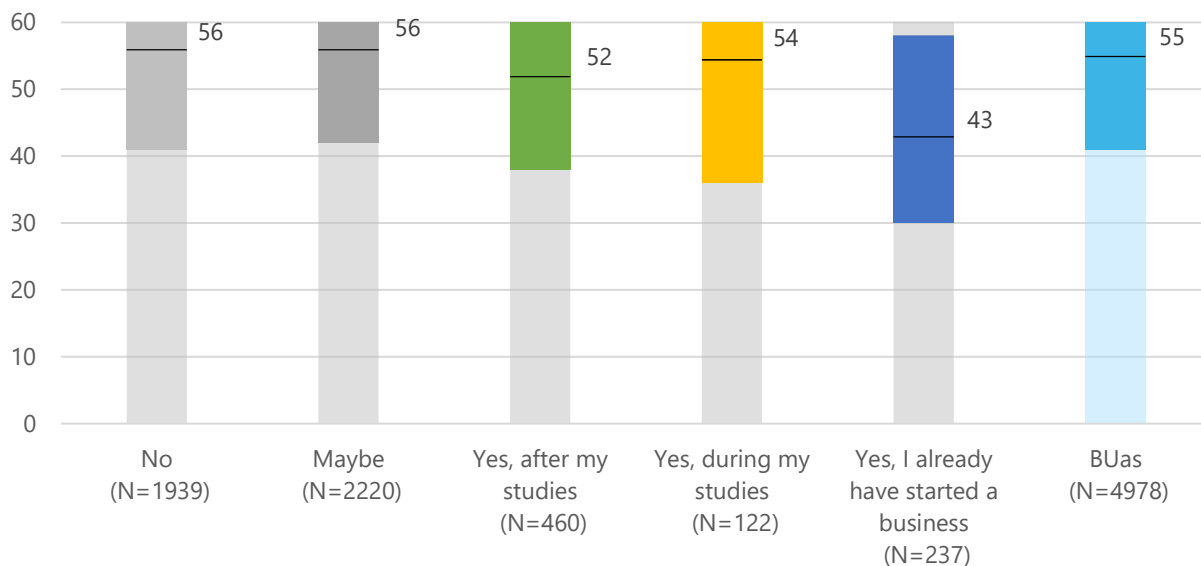


Figure 6 Entrepreneurship ambitions of BUAs students by average number of ECTS acquired annually so far at the start of study year 2020-2021 (N=4,978)

3.3.4 Entrepreneurship at BUAs controlled for study delay

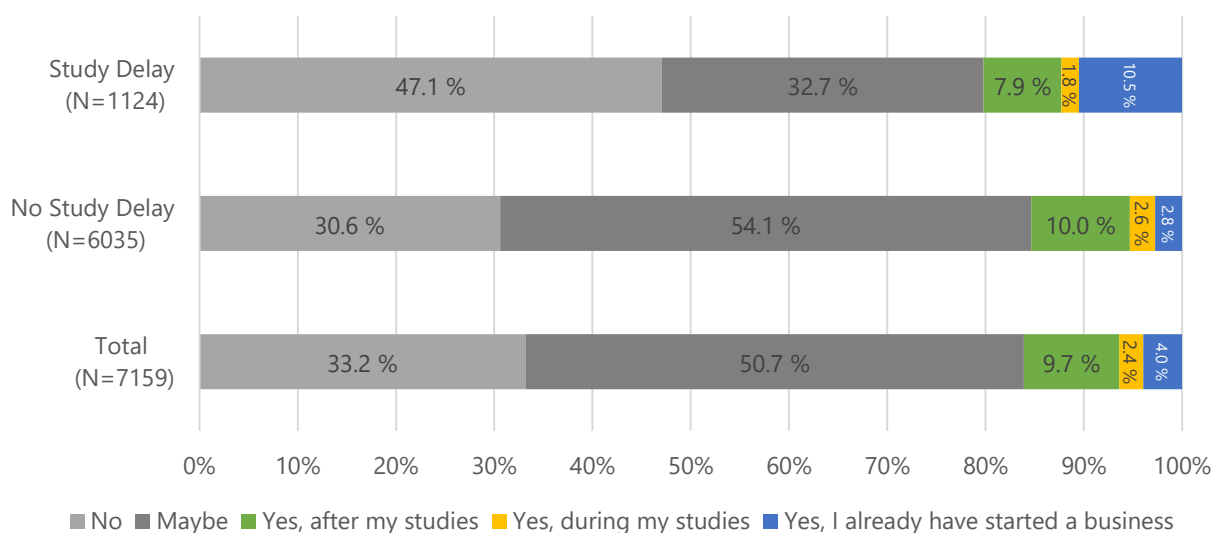


Figure 7 Entrepreneurship at BUAs controlled for study delay

When controlling for study delay (see Figure 7), the figures do not show an entirely different picture, but a moderated one. Study delay was set arbitrarily to those students that are still registered as students in 2020-2021 and have

enrolled at BUAs prior to study year 2017-2018. The biggest effect seems to be that the overall picture is not necessarily a biased picture, but the trend toward more certainty (i.e., fewer people stating they are uncertain about becoming an entrepreneur in favour of more people stating either 'no' or 'yes'), is moderated. The previous statements apply more to students that have a study delay. Which makes sense, they are on average older as we shall see and therefor perhaps have a clearer idea of what their ambitions are and are, hence, more certain about their future.

The differences between the those that experience study delay and those that do not, are emphasized in Figure 8. More than 40 percent of all students that have started a study during their study are students with a mild to severe study delay.

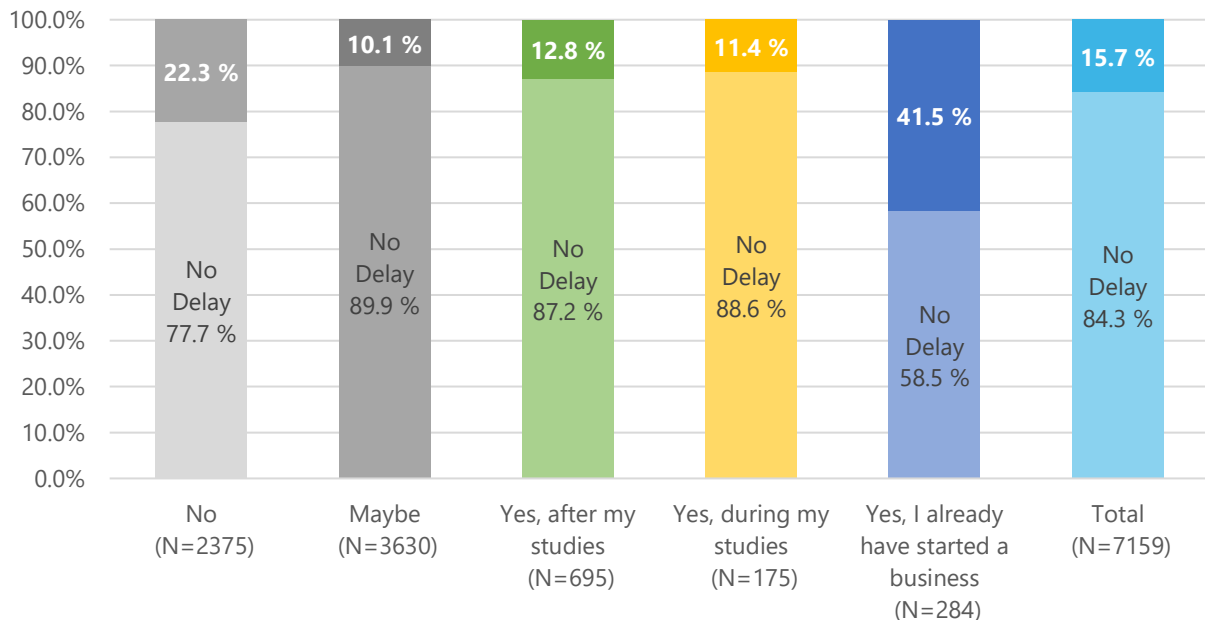


Figure 8 Comparison of students with a study delay to students without a study delay

3.4 Demographic outlook of entrepreneurial ambition

The sections below explore the influence of certain demographic characteristics such as age, gender, and nationality on interest in entrepreneurship.

3.4.1 The influence of age on interest in entrepreneurship

Figure 9 below shows the relation between age and intention to start a business. Like Figure 6 it essentially represents a boxplot. The coloured area represents the interquartile range and the black stripe the median. The figure again expresses that overall, the differences are not as great and only those that have started a business already are, on average, older. Which makes perfect sense considering they are also the population with the most study delay.

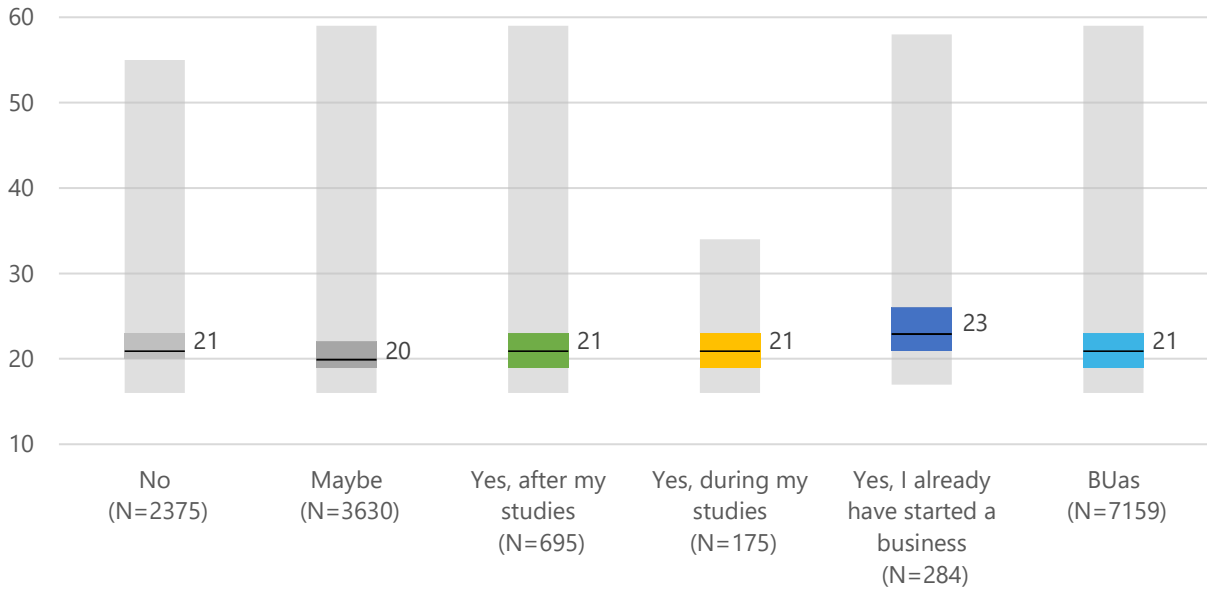


Figure 9 Entrepreneurship ambitions of BUAs students by age at the start of study year 2020-2021 (N=7,159)

3.4.2 The influence of gender on entrepreneurial ambitions

Figure 10 below shows the distribution between men and women within the three positive intention categories. Overall, at BUAs close to 60 percent of the students is female and approximately 40 percent is male. When considering the positive ambition categories, it is mostly males that have already started a business, or intent to do so during they show that men are more inclined to have entrepreneurial ambitions than females. This difference is more pronounced to those that have already started a business, than it is for those that plan to do so after their studies. Students' ambitions to start a business after their studies is almost similar to that of the total population, which indicates that the differences in ambitions between men and women, at least in terms of ambitions, seem to be limited to have started a business during their studies, or having plans to do so during their studies. It would be interesting to find out to what extent plans to start a business after the studies are effectuated and whether there are gender influences in this case as well.

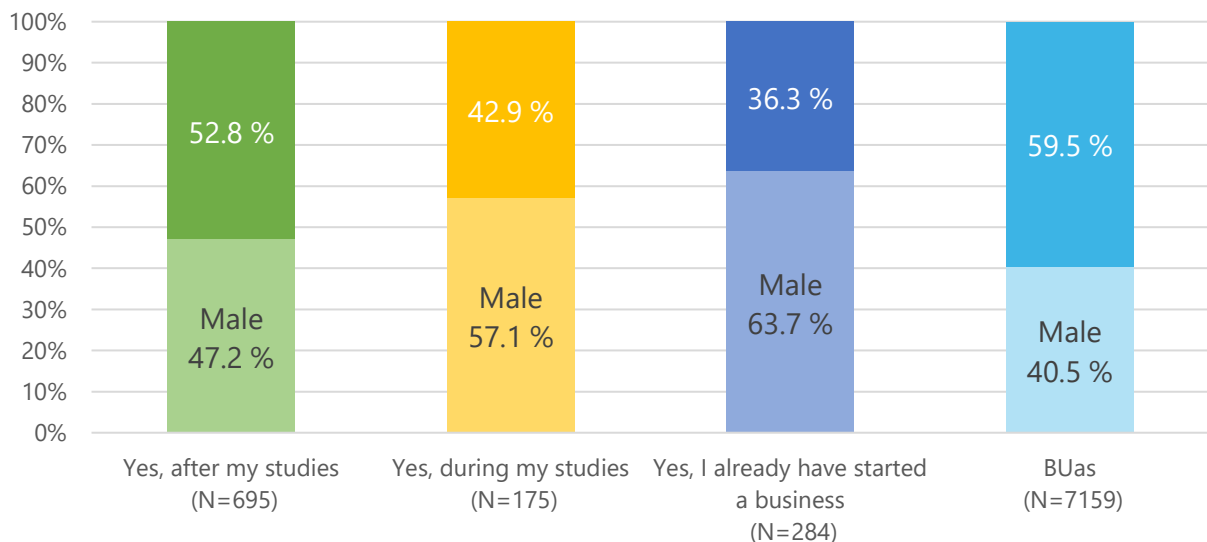


Figure 10 Positive entrepreneurship ambitions of BUAs students by gender at the start of study year 2020-2021 (N=7,159)

Figure 11 is presented below to get a better impression of the differences between male's and females' entrepreneurial ambitions. Besides showing that a larger relative number of male students has positive ambitions compared to females, it emphasizes the difference when ambitions become more concrete.

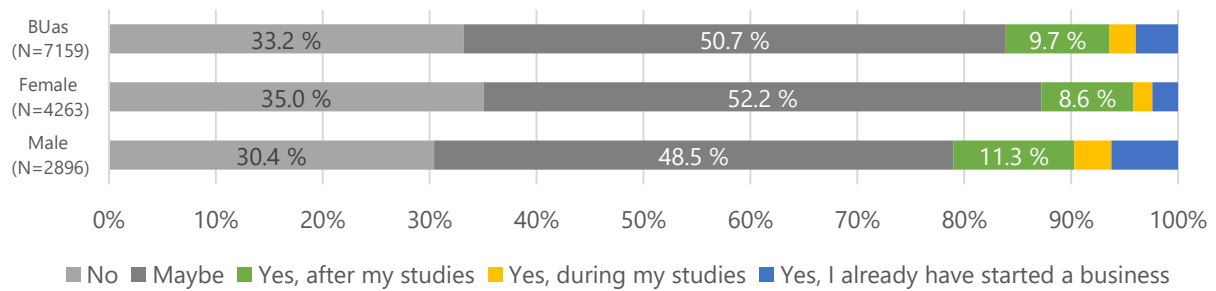


Figure 11 Entrepreneurship ambitions of BUAs students by gender at the start of study year 2020-2021 (N=7,159)

In order to visualize these differences more clearly Figure 12 and Figure 13 were created. In these figures the domains have been ordered from low to high by relative number of male students. What is mostly interesting about these figures is that when you look at the order, there are striking differences. Compared to other domains, females in the gaming domain are more interested to start a business than their male counterparts. Despite males being more inclined to start a business overall (14.7 percent males versus 13.0 percent females). A more striking difference in this sense is perhaps Facility, where males are far more inclined to start a business than females (22.5 males versus 7.7 percent females).

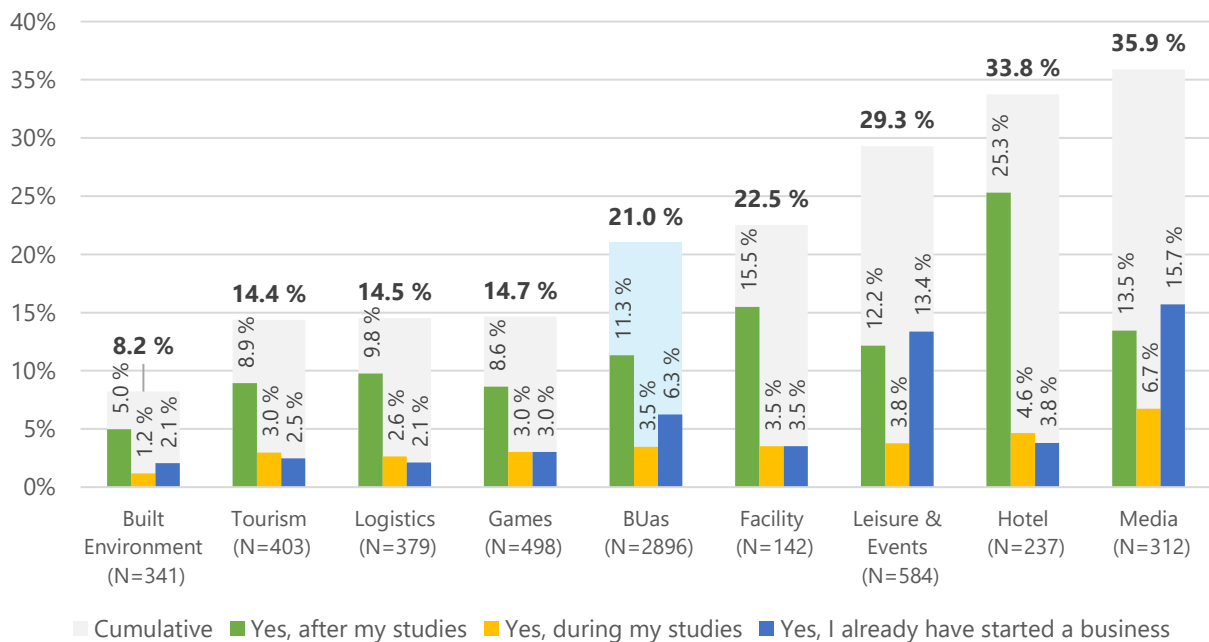


Figure 12 Entrepreneurial ambitions of male students by domain at the start of study year 2020-2021 (N=2,896)

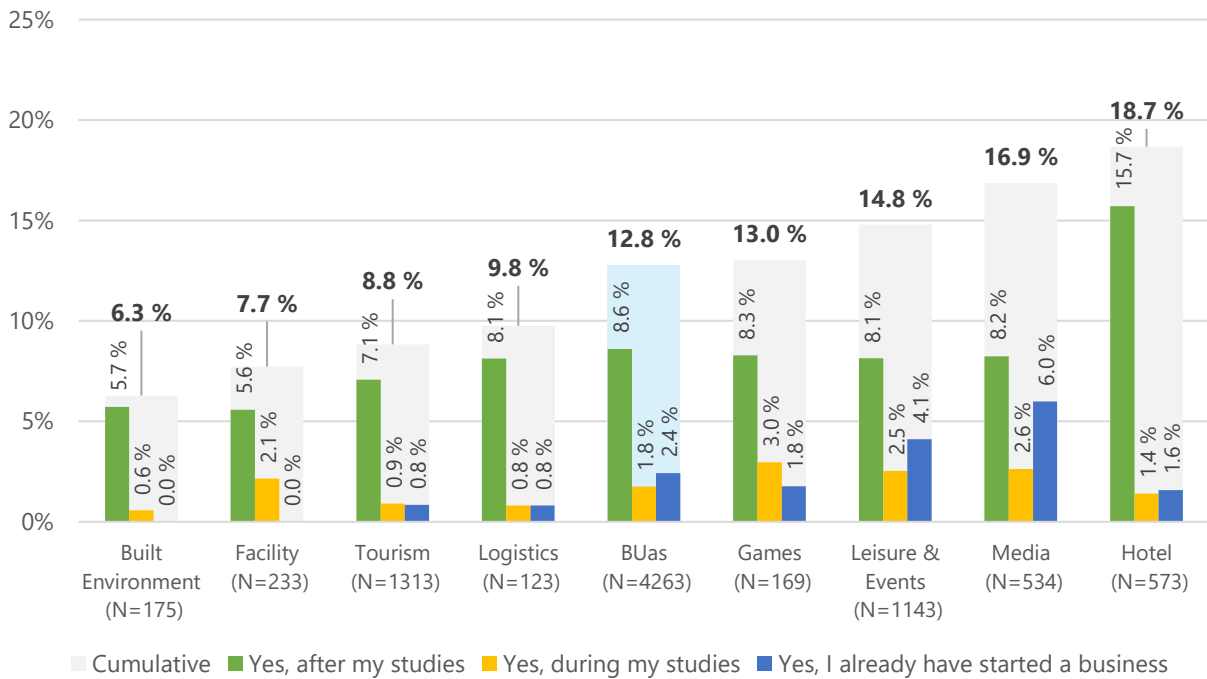


Figure 13 Entrepreneurial ambitions of male students by domain at the start of study year 2020-2021 (N=4,263)

3.4.3 The influence of nationality on interest in entrepreneurship

Finally, it is interesting to examine whether nationality affects the intention to become an entrepreneur. In the first instance, the population is divided into Dutch and non-Dutch nationality. The result of this can be seen in Figure 14. It seems logical that students with a non-Dutch nationality are less likely than students with a Dutch nationality to have already started a business during their studies. Assuming that it concerns a business established in the Netherlands, this is less obvious for students who may not stay in the Netherlands after their studies.

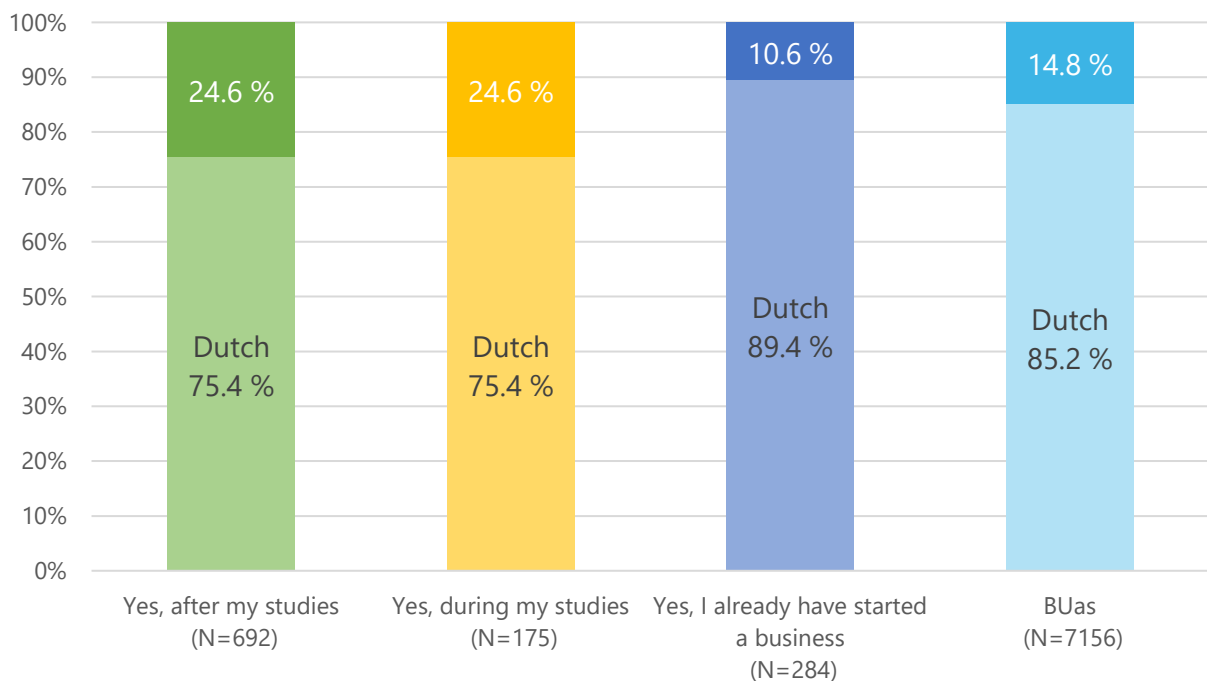


Figure 14 Positive entrepreneurship ambitions of BUAs students by nationality at the start of study year 2020-2021 (N=7,159)

However, this does not yet answer the question whether the nationality of students affects their intention to become entrepreneurs. After all, this has only been compared within the group of students who have indicated that they actually want to start a business or have already started one. To illustrate this, Figure 15 below shows that students with a non-Dutch nationality are relatively more inclined to start a business (22.9 percent) than students with a Dutch nationality (14.9 percent).

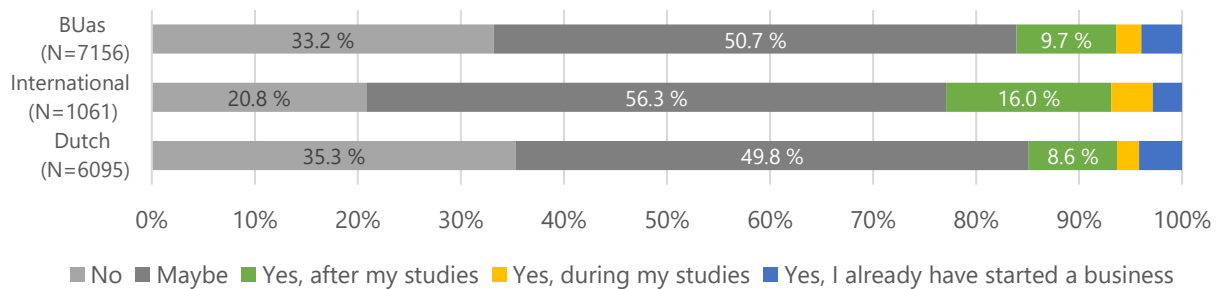


Figure 15 Entrepreneurship ambitions of BUAs students by nationality at the start of study year 2020-2021 (N=7,159)

The differences in nationality per domain are considerable as can be seen in Figure 16 and Figure 17. It is important to look at the total number of students when looking at the percentages below. Some studies (facility and Built Environment) have far fewer international students than other domains. It is interesting to note that particularly in the Leisure & Events and Media domains, international students have relatively higher numbers of students that have already started a business during their studies.

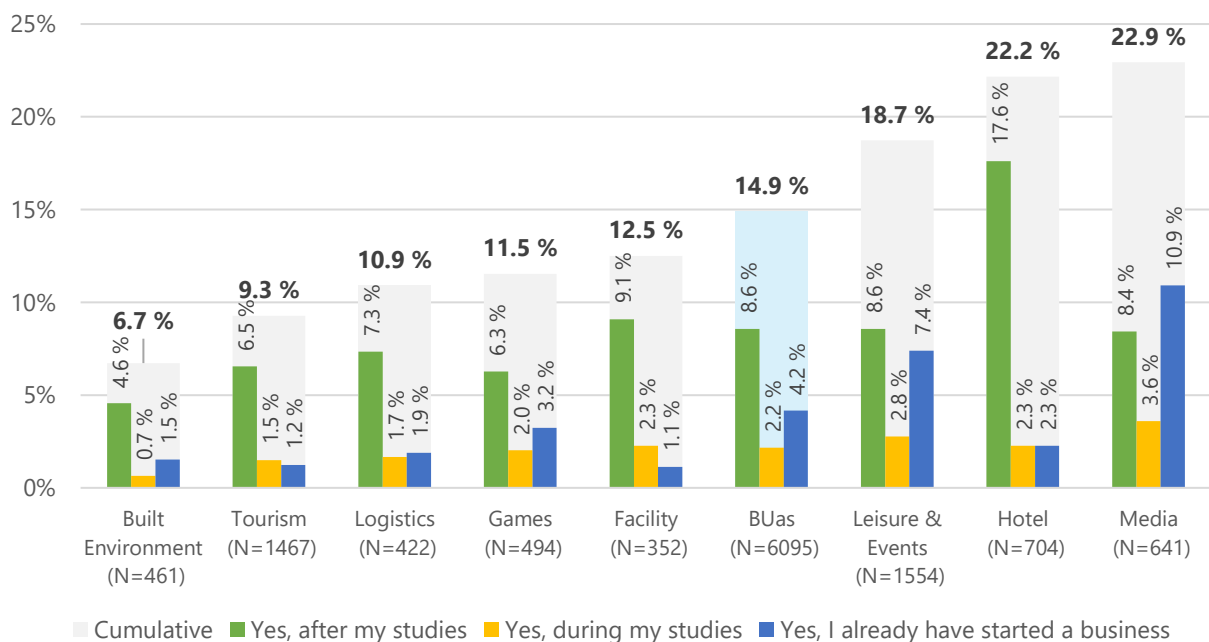


Figure 16 Positive entrepreneurship ambitions of BUAs students by domain and Dutch nationality at the start of study year 2020-2021 (N=6,095)

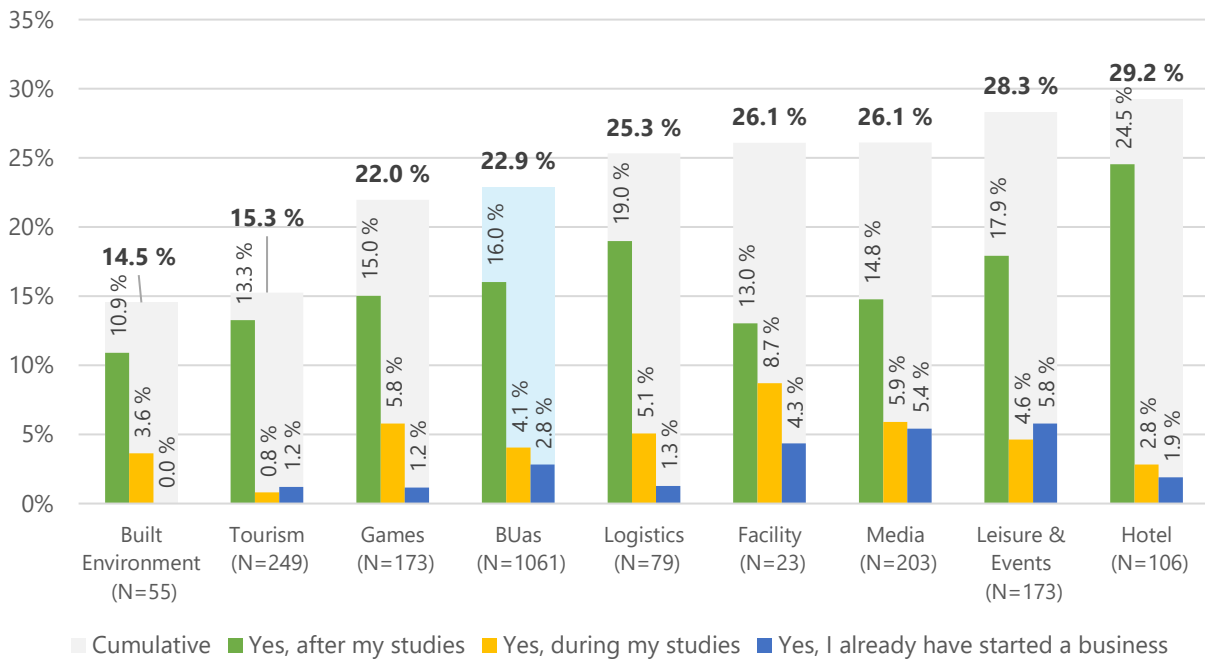


Figure 17 Positive entrepreneurship ambitions of BUAs students by domain and non-Dutch nationality at the start of study year 2020-2021 (N=1,061)

3.5 Stability and change in entrepreneurial ambition of Cohort 2018-2019

In this section we try to show, at an aggregate level, the changes per year in entrepreneurial ambition. We do so by following a particular cohort (those students starting their studies in 2018-2019) and follow their pattern over the course of four years. We do so by using descriptive tables (see Table 1 and Table 2) and so-called Sankey diagrams (see Figure 18).

3.5.1 Changes of Cohort 2018-2019 in their first year

The green cells in Table 1 indicate 'positive changes', these are people that are more certain about their entrepreneurial ambitions. The orange cells indicate 'negative changes', these are people that have lowered their ambition to become an entrepreneur. The total number of positive transitions was 182 and the total number of negative changes was 274. This implies that within this cohort in this year, 92 more negative changes were registered than positive and that in total 556 students changed their position from the first year.

Table 1 Cohort 2018-2019: Changes in entrepreneurial ambitions between 2018-2019 and 2019-2020 (N=1,756)

		Ambitions to start as an entrepreneur (2019)					Total	
		No	Maybe	Yes, after I graduate	Yes, during my studies	I have already started my own business		Not registered
Ambitions to start as an entrepreneur (2018)	No	185	81	7	0	0	109	382
	Maybe	185	486	58	16	2	356	1103
	Yes, after I graduate	10	56	62	13	4	64	209
	Yes, during my studies	1	12	6	4	1	11	35
	I have already started my own business	0	4	1	1	10	11	27
	Not registered	0	0	0	0	0	0	0
Total		392	642	139	34	17	563	1,787

'No' or 'maybe' in 2018-2019

Of those that indicated 'no' or 'maybe' in their first year of study, 208-2019, 81 moved to 'maybe'. At the same time 185 moved from 'maybe' to 'no'. These categories ('no' and 'maybe') are where most changes take place. There are 7 changes from 'no' to 'yes', but not during their studies.

'Yes' in 2018-2019

Quite a number of students that were positive in 2018-2019 have lowered their ambition the following year. It is interesting to note that 11 students that owned a business in the first year, have stopped their studies.

'Not registered' in 2019-2020

In total 563 students (31.5 percent) have not registered the next year. This is because they have stopped their studies or have graduated. It is not uncommon for students to switch their studies after the first year. A negative study advice is another reason why students have to stop their studies after the first year.

3.5.2 Changes of Cohort 2018-2019 in their second year

The green cells in Table 2 indicate 'positive changes', these are people that are more certain about their entrepreneurial ambitions. The orange cells indicate 'negative changes', these are people that have lowered their ambition to become an entrepreneur. The total number of positive transitions was 177 and the total number of negative changes was 215. This implies that within this cohort in this year, 38 more negative changes were registered than positive and that in total 392 students changed their position from the second year.

Table 2 Cohort 2018-2019: Changes in entrepreneurial ambitions between 2019-2020 and 2020-2021 (N=1,756)

		Ambitions to start as an entrepreneur (2019)					Total	
		No	Maybe	Yes, after I graduate	Yes, during my studies	I have already started my own business		Not registered
Ambitions to start as an entrepreneur (2018)	No	240	88	9	3	0	41	381
	Maybe	135	378	51	10	7	58	639
	Yes, after I graduate	13	48	52	6	1	14	134
	Yes, during my studies	2	11	5	7	2	7	34
	I have already started my own business	0	0	0	1	10	6	17
	Not registered	6	15	6	2	2	520	551
Total		396	540	123	29	22	646	1756

'No' or 'maybe' in 2019-2020

Of those that indicated 'no' or 'maybe' in their first year of study, 208-2019, 88 moved to 'maybe'. At the same time 135 moved from 'maybe' to 'no'. These categories ('no' and 'maybe') are where most changes take place. There are 12 changes from 'no' to 'yes', but none have already started a business.

'Yes' in 2019-2020

Quite a number of students that were positive in 2019-2020 have lowered their ambition the following year. It is interesting to note that 6 students that owned a business in the previous year, have stopped their studies.

'Not registered' in 2020-2021

In total 126 students (7.1 percent) have not registered the next year. Students tend to drop out far less after their first year. Probably also more students have graduated within two years. BUas has a number of masters' studies that take two years tops to finish. At the same time 31 students have returned from a one-year hiatus. Sometimes pause their studies for a year for different reasons. They return to their previous study, or a different one.

3.5.3 Cohort 2018-2019: plotting dynamics

Figure 18 below, visualizes the above story. It should be noted again that these are aggregate changes and do not show individual paths. We have opted for aggregate figures as otherwise, the second year would show a lot more paths (theoretically 6^3 , 132 in practise), which would be very difficult to make sense of. Of the 216 (6^3) theoretically possible number of paths, 132 were found in practise. This means that not all theoretical paths were followed in practise and it most likely means that not all paths are equally logical.

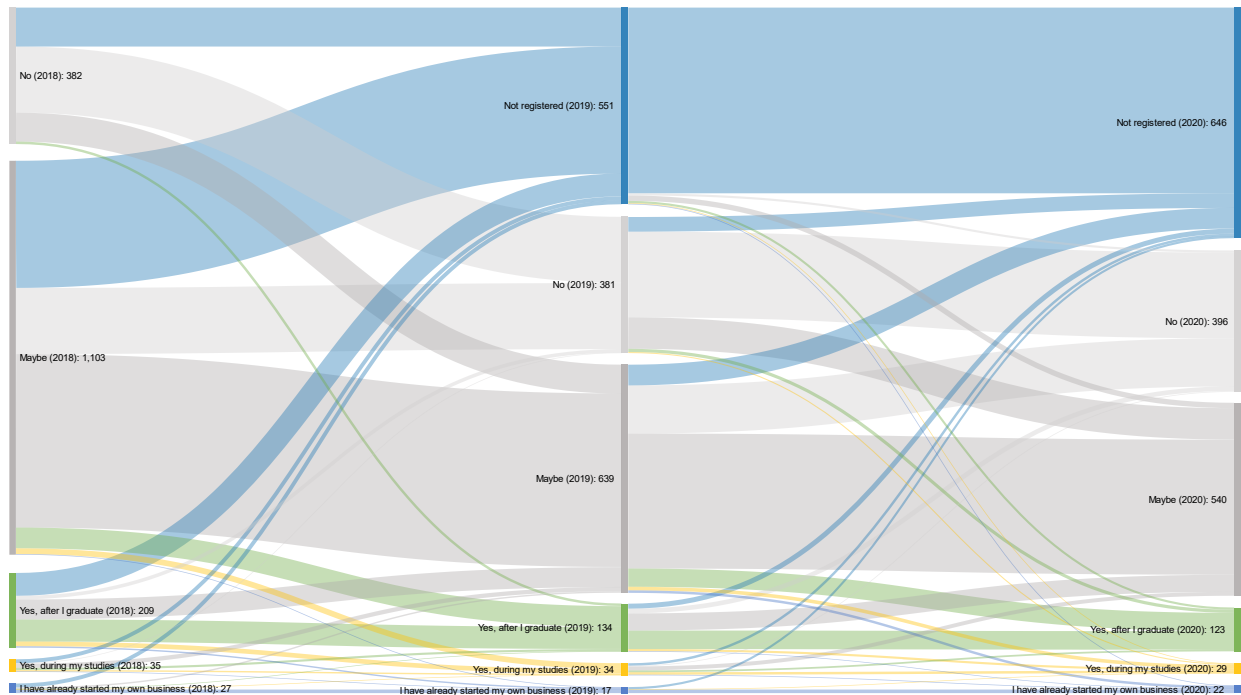


Figure 18 Sankey diagram of changes in entrepreneurial ambitions within cohort 2018-2019 (N=1,756)

Figure 18 does make it easier to see the net changes over two years. The number of students that has started a business has picked up again after losing. Year after year, the number of students that are uncertain about their choice and indicate 'maybe' is lower. This may be interpreted as students stabilizing their preferences over the years.

Figure 19 below aims to display the absolute totals per category from year to year. It mostly shows that the number of students is stabilizing after the first year.

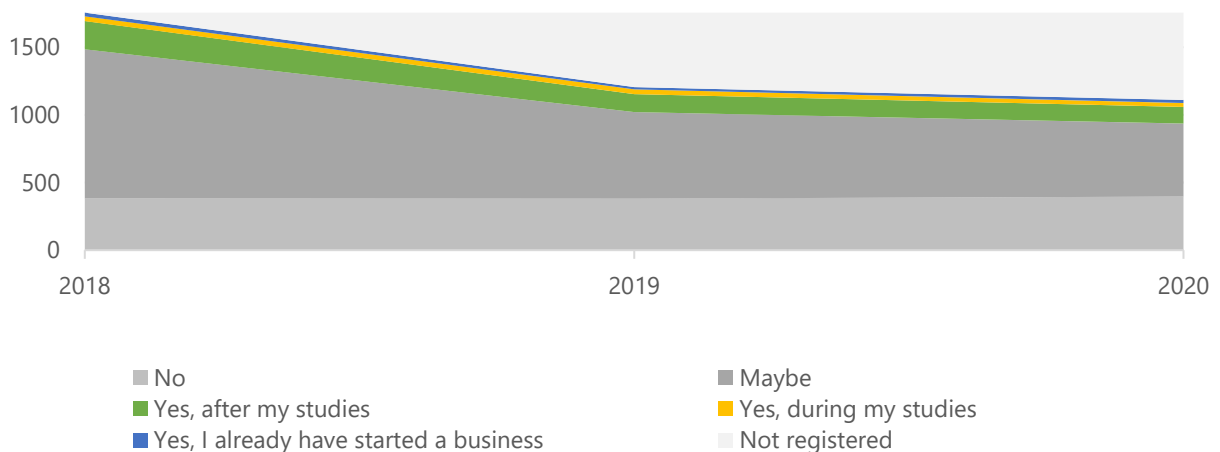


Figure 19 Stacked area plot of changes in entrepreneurial ambitions within cohort 2018-2019 (N=1,756)

Figure 20 does not include students that are not registered at BUAs anymore. As such it gives a better portrayal of the distribution within the five ambition categories. Here also the picture is one of 'certainty'. Both 'no' and 'yes', though mostly 'no' increases at the cost of 'maybe'.

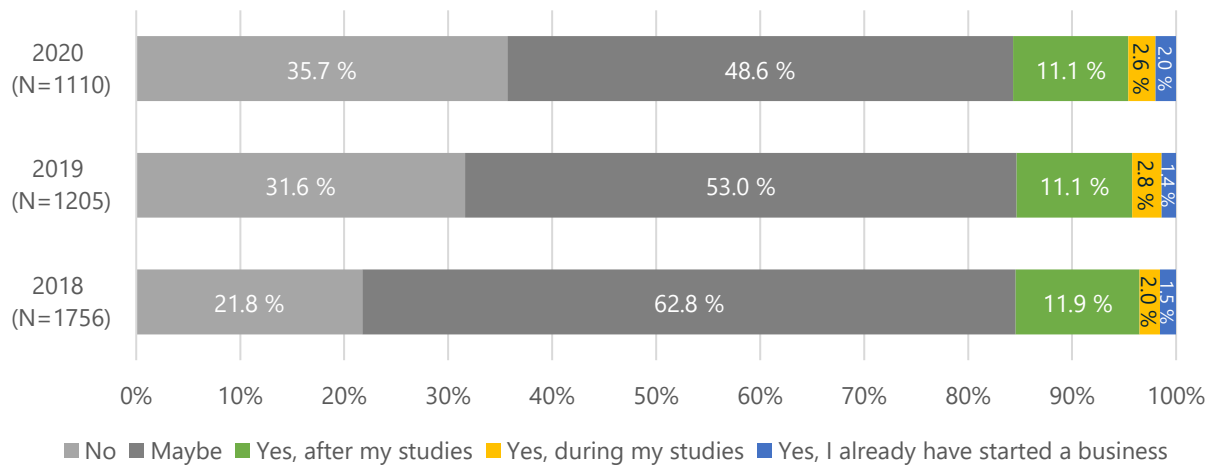


Figure 20 Changes in entrepreneurial ambitions within cohort 2018-2019 (N=1,756)

4 Concluding

This study aims to answer the following research questions:

1. To what extent are BUAs students interested in becoming entrepreneurs?

And, based on cohort data of students that started their studies in study year 2018-2019:

2. How does the interest of students in becoming an entrepreneur develop over the course of their study at BUAs?

4.1 Conclusion and discussion

This study's central question "To what extent are BUAs students interested in becoming entrepreneurs?" can be concluded that 16.1 percent of BUAs students answer the main question positively. This figure is slightly biased by a number of student entrepreneurs that both run a business and are enrolled as students at the same time. Correcting the figures by excluding students with study delay results in 15.6 percentage of students with a positive entrepreneurial ambition. In 2018 this percentage was 14 percent, which means that this is the second year in a row by which this percentage increases. Whether this is a trend remains to be seen. It is positive to note that our students have not become pessimistic or disheartened by the ongoing COVID-19 pandemic. What would have happened if COVID-19 had not taken root is counterfactual. We will see what happens when society returns to a new 'normal'. More influential will probably be the development of the labour force regulations in the foreseeable future. There is a strong relation between entrepreneurship and self-employment, which is not necessarily a good thing. This, however, goes beyond the scope of this study and the answers it aims to provide.

The differences in ambitions differ per domain. Media students lead in terms of ambition and Built Environment students are relatively least interested in starting a business. Students that run a business during their studies usually take longer to graduate and are generally a few years older. Students with entrepreneurial ambitions at BUAs are often men. Even in studies dominated by women in terms of numbers, men are overrepresented when the focus is on entrepreneurial ambitions whilst they are studying. Women tend to postpone their ambitions usually until after their studies. This picture is the same now for two years in a row.

By following a cohort for the first time the second main research question can be answered. What the first question has shown is that it is different from the overall trend where we see students becoming more interested in becoming an entrepreneur over the years. What following this cohort indicates is that interest in entrepreneurship is dropping on average, but that at the same time figures become stable and that there are students that are upward mobile in ambition even after their first year. It will be interesting to be able to answer what causes these general patterns of up and downward mobility at some point.

The results suggest that students may interpret the term 'business' differently than we think. Particularly looking at the dynamics in entrepreneurial ambitions of the first two years of cohort 2018-2019, it does not look like they are certain of what they want. Though there is a trend towards a stability in choice caused by the stable decline of those that indicate 'maybe', there is still roughly 20 percent of the students that change their preference from year to year.

4.2 Suggestions for further research

Over the past two years we have made suggestions for further research. Particularly trying to obtain richer information by using a more elaborate study including a literature study on entrepreneurial ambitions of students in combinations with a more elaborate mode of inquiry. Not only will such a study make information richer, it can also provide a better picture of what students actually consider when they use the terms 'business' or 'entrepreneurship'. What do they have in mind, a life as a self-employed person, a one-man business, or stronger legal forms such as an N.V. or B.V.?

Entrepreneurship is often seen as a job generator. Entrepreneurial individuals innovate and may thus indirectly offer labour market opportunities for others. In order to really be able to make statements about this, it is essential to get a better understanding of what exactly is meant by 'starting a business' by students. Looking at the

transitions that have taken place, we still have no idea as to why these changes were made. More than half of Cohort 2018 has given a different answer to the central question, but we have no explanation why.

Finally, it could be argued that the most central question, why students want to start a business at all, is not answered either. Probably, literature research can provide an easier answer to this question, but this does not yet explain why there are significant differences between the different domains within our institute. Why is there more interest in entrepreneurship among a student studying Hospitality than among a student studying Logistics? It will be interesting to answer to what extent this is a matter of personal choice and ability, or whether this is more a matter of institutional and structural characteristics of the employment/business practices of a particular domain.

We hope to be able to answer many of the above questions in a future study.

5 References

- Borbye, L. (2010). Out of the Comfort Zone: New Ways to Teach, Learn, and Assess Essential Professional Skills--An Advancement in Educational Innovation. *Synthesis Lectures on Technology, Management, and Entrepreneurship*, 2(1), 1-79. <https://doi.org/10.2200/S00251ED1V01Y201001TME002>
- CBS StatLine. (2020). *Businesses and branches in hospitality, leisure and media in the Netherlands 4th Quarter, 2019* <https://opendata.cbs.nl/statline/#/CBS/nl/dataset/81589NED/table?dl=2F201>
- Comtois, D. (2020). *summarytools: Tools to Quickly and Neatly Summarize Data*. In (Version 0.9.8) <https://CRAN.R-project.org/package=summarytools>
- Corré, A. (2016, February 2). Ondernemen naast je studie? Dat kan dus wél. *NRC*. <https://www.nrc.nl/nieuws/2016/02/02/ondernemen-naast-je-studie-dat-kan-dus-wel-a1493854>
- GEM. (2019, January 21). *GEM Global Entrepreneurship Monitor 2018/2019 Global Report*. Retrieved February 24, 2021 from <https://www.gemconsortium.org/report/gem-2018-2019-global-report>
- Grolemund, G., & Wickham, H. (2011). Dates and Times Made Easy with {lubridate}. *Journal of Statistical Software*, 40(3), 1-25. <https://doi.org/10.18637/jss.v040.i03>
- Ondernemend.nu. (2020). *Hoger Onderwijs : ondernemend.nu*. Retrieved January 21, 2020 from <https://www.ondernemend.nu/hoger-onderwijs>
- Ooms, J. (2020). *writexl: Export Data Frames to Excel 'xlsx' Format*. In (Version 1.3.1) <https://CRAN.R-project.org/package=writexl>
- R Core Team. (2020). *R: A language and environment for statistical computing*. In (Version 3.6.3) R Foundation for Statistical Computing. <https://www.R-project.org/>
- Revelle, W. R. (2020). *psych: Procedures for personality and psychological research*. In (Version 2.0.9) Northwestern University. <https://CRAN.R-project.org/package=psych>
- Rovers, M. (2016). *Studentondernemerschap binnen Avans Hogeschool 2016-2017*. A. Hogeschool. https://punt.avans.nl/wp-content/uploads/2016/11/2016-2017_Studentondernemerschap_binnen_Avans_definitief.pdf
- RStudio Team. (2020). *RStudio: Integrated Development Environment for R*. In (Version 1.3.1093) RStudio, PBC. <http://www.rstudio.com/>
- SankeyMATIC. (2014, April 30). *SankeyMATIC (BETA): A Sankey diagram builder for everyone*. Retrieved December 15 from <http://sankeymatic.com>
- Van Liempt, A., & Van Es, T. (2019). *Ondernemerschapsambities van BUAs studenten - collegejaar 2018-2019*. https://pure.buas.nl/files/806297/Liempt_Ondernemerschapsambities_van_BUAs_students_collegejaar_2018_2019.pdf
- Van Liempt, A., & Van Es, T. (2020). *Entrepreneurship Ambitions of BUAs students - 2019-2020*. https://pure.buas.nl/files/10713632/Liempt_Ondernemerschapsambities_van_BUAs_students_collegejaar_2019_2020.pdf
- Wickham, H., & Bryan, J. (2019). *readxl: Read Excel Files*. In (Version 1.3.1) <https://CRAN.R-project.org/package=readxl>
- Wickham, H., & Miller, E. (2020). *haven: Import and Export 'SPSS', 'Stata' and 'SAS' Files*. In (Version 2.3.1) <https://CRAN.R-project.org/package=haven>

6 Appendix

Table 3 Quick overview of the number of Businesses in the Netherlands operating in the fields of hospitality, leisure and media, 4th quarter 2019.

<i>Standard Dutch Industrial Classification (SBI) 2008</i>	<i>Total number of businesses</i>	<i>Number of businesses employing 1 person</i>	<i>Percentage of businesses employing 1 person</i>
<i>A-U All economic activities</i>	1828160	1421160	77,74%
<i>1814 Graphic finishing</i>	515	365	70,87%
<i>1820 Repro of sound, video and software</i>	460	415	90,22%
<i>Traditional Catering</i>	42770	13645	31,90%
<i>I Catering</i>	60600	26530	43,78%
<i>55 Accommodation</i>	9355	4815	51,47%
<i>551 hotels</i>	4900	2530	51,63%
<i>55101 Hotel-restaurants</i>	1535	260	16,94%
<i>55102 Hotels (not hotel-restaurants)</i>	3365	2270	67,46%
<i>552 Holiday home rentals etc.</i>	1945	1055	54,24%
<i>55201 Rental of holiday homes</i>	1835	1010	55,04%
<i>55202 Youth hostels, group accommodations</i>	110	50	45,45%
<i>553 Campsites</i>	1990	820	41,21%
<i>559 Other accommodation</i>	520	410	78,85%
<i>56 Eating and drinking establishments</i>	51240	21715	42,38%
<i>561 Restaurants, other eateries</i>	28735	7555	26,29%
<i>56101 Restaurants</i>	14310	2585	18,06%
<i>59 Motion picture and TV production; sound recording</i>	19610	17475	89,11%
<i>591 Production, distribution of films, TV</i>	16360	14690	89,79%
<i>5911 Motion picture and television production</i>	11995	10675	89,00%
<i>59111 Film production, not television films</i>	10890	9695	89,03%
<i>592 Making and publishing sound recordings</i>	3255	2790	85,71%
<i>5920 Making and editing sound recordings</i>	3255	2790	85,71%
<i>73-75 Advertising, design, other services</i>	121140	107865	89,04%
<i>74 Design, photography, translation agencies</i>	84150	77765	92,41%
<i>74101 Graphic design</i>	17180	16040	93,36%
<i>81 Cleaning contractors, gardeners, etc.</i>	28555	20465	71,67%
<i>8110 Facility management</i>	930	745	80,11%
<i>R-U Culture, recreation, other services</i>	221025	192645	87,16%
<i>R Culture, sport and recreation</i>	112285	99830	88,91%
<i>93 Sports and recreation</i>	22825	16355	71,65%
<i>932 Other recreation</i>	9415	7165	76,10%
<i>S Other services</i>	108590	92780	85,44%

Source: CBS StatLine (2020)

7 About the author



Adriaan van Liempt, PhD (liempt.a@buas.nl) works as a teacher and researcher in sociology and methodology at the Academy Leisure & Events (BUAs). He studied Sociology at Tilburg University and obtained his PhD at the University of Amsterdam on a study into the presence of collective labour agreements in the Dutch IT sector. Despite having had a software development agency from 1994 to 2010, during and after his studies, he was never a true entrepreneur in the sense of risk taking and taking on responsibility as an employer, but above all someone who was able to combine creativity and analytical skills with something that was in demand at the time. Presently Van Liempt is interested in a diverse array of topics including data science, machine learning, measuring experiences, inclusiveness, and the role and position of entrepreneurship in relation to the labour market and its institutions.



Games



Media



Hotel



Facility



Built Environment



Logistics



Tourism



Leisure & Events



Mgr. Hopmansstraat 2
4817 JS Breda

P.O. Box 3917
4800 DX Breda
The Netherlands

PHONE

+31 76 533 22 03

WEBSITE

www.buas.nl

DISCOVER YOUR WORLD