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The role of the environment in entrepreneurial propensity of youngsters' business ideas

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Abstract

Entrepreneurship shows regional differences through countries' history, economic environments, society and habits of individuals. Youngsters can think globally and have the highest skills to access information and know-how. This paper collects data from students' project work from different countries and extract that information, which can give interesting input to describe regional effects on entrepreneurial propensity through a quantified semantic analysis. Youngsters from 12 countries received the same instructions to present their national economies and then create a business there. The fundamental question of the paper is that are there any definable attributes from the economic environment, which effect youngsters' entrepreneurial propensity? How can we describe these effects? We linked values and made a numerical evaluation of youngsters' business concepts, which gives not only a range but also the grade of the presence of local or regional elements. The results show that the more exact special elements of a national economy mentioned, the more barriers participants are aware of. The research concept and the results may give useful inputs in knowledge transfer and education of entrepreneurship.

Keywords: Entrepreneurial propensity, Entrepreneurial environment, Youngsters, Regional, Entrepreneurial environment

JEL Classification: L20, L26, F64

Introduction

The very first step of the concept of this paper is to define the understanding of entrepreneurial propensity. The theoretical background introduces different perspectives in motivators of being an entrepreneur. Entrepreneurial propensity is a solely used term, but it has several contexts, which can change its meaning. Therefore, we gave the framework, and we are abiding by the understanding, which says that it is a desire to be an entrepreneur (Palalić et al., 2017; Schwarz et al., 2009). Additionally, we consider the extent of how these desires are detailed. To this, we linked scores and made a numerical evaluation, which gives not only a range, but also the grade of the presence of local or regional elements. This gives the added value of the paper. That is how we seek the answer to the basic questions: are there any definable factors from the economic environment, which

effect the youngsters' entrepreneurial propensity? How can we describe these effects? To present this, we process project work of students from very different countries. The logic of the projects has two pillars. Exact, pre-defined instructions of the project asked information about students' national economic environment and business creation in their perspectives. With this, we paired the desire to be an entrepreneur with environmental elements. We formalized the instructions in a way that categories and values or scores could be added to them. Besides the fact that we could score the propensities, significant results discuss the interrelation of national elements and propensity. In economies, where the sector of large companies is relatively strong employer, the individual propensity did not show relatively high values. In the opposite cases, where the MSME sector is relatively significant, business concepts were more detailed, so these cases got higher evaluation for propensity in our understanding. In economies, where exact problematic cases were mentioned, business ideas tried to handle somehow these problems. It proves that if we define environmental factors, we can see their different effects on individual business contexts, especially to the extent of how detailed they are.

Theoretical background

The aim of the literature representation was to present the interpretation of entrepreneurial propensity highlighting the environmental effects on it. Therefore, we selected those sources, which have the closest understanding to our context "role of environment in entrepreneurial propensity". Additionally, we could not forget that our research is among youngsters. Therefore, we analyzed entrepreneurial propensity in two aspects: articles, which discuss the "role of environment" and existing results, which are attached to "youngsters". This is the narrowest selection, which can be widened based on the future reexamination of this topic. According to this, the literature review can be divided into two parts, at the same time as keeping as its focus on regional aspects and youngsters' education.

Entrepreneurial orientation, environment and entrepreneurial propensity

Mikalef et al. (2019) provide a study, in which they examine radical and incremental innovation capabilities in the context of the big data analytics capability. After a structural modeling they find the indirect effect of dynamic capability in big data on the two highlighted innovation capabilities. "Under conditions of high environmental heterogeneity, the impact of BDACs on dynamic capabilities and, in sequence, incremental innovation capability is enhanced, while under conditions of high environmental dynamism the effect of dynamic capabilities on incremental innovation capabilities is amplified." This shows us that if we frame the theoretical component of entrepreneurial propensity, we may be able to discover interconnections between the environment and this phenomena. Abu-Rumman et al. (2021) also examines the mediating role of dynamic capabilities which are developed by entrepreneurial networks and entrepreneurial orientation. They suggest that dynamic capability has a key importance in competitive environments. Strong networks and strategic alliances among SMEs are the platforms of these capabilities.

Luu and Ngo (2019) focus on transitional economies to highlight the complex effects of entrepreneurial orientation on performance by drawing upon social capital

theory. "The findings urge managers of firms operating in transitional economies to take the levels of social capital from business ties and political ties into consideration when making their decision on which entrepreneurial strategy to pursue." This concept is similar to the one presented in this paper as it takes the environmental effects into consideration. Entrepreneurial orientation is another concept besides capabilities, which can give useful input to the profile of the research.

Covin et al. (2018) provides the conceptualization of entrepreneurial orientation on three pillars. Firstly, they relate it to the set of corporate-related constructs. Secondly, they introduce the measuring challenges and possibilities. Thirdly, they highlight the directions for future entrepreneurial orientation research. They agree that "entrepreneurial orientation is a robust phenomenon, which is connected usually to an environmental phenomena". It transforms the competitive and corporate environment. For future research guidance they suggest proposed focuses of entrepreneurial orientation research. Among others, they recommend focusing on the situation of a change like new product placement or new market recovery. Additionally, the suggestion to focus on managerial orientations or "orientations that counterbalance and complement EO such that, in combination, these orientations promote long-term organizational success." Shah et al. (2019) also gives a theoretical conceptualization of entrepreneurial orientation and highlights elements (risk-taking, differentiation) which have a significant effect on performance of SMEs.

Entrepreneurial propensity is understood as a more direct term in this article, firstly because we are focusing on youngsters, possible future entrepreneurs. Secondly, entrepreneurial orientation from a management point of view highly depends on existing corporate stakeholders and exact cases and processes in business administration. We assume that in case of the entrepreneurial propensity, the mediating effects of environmental elements may need more research especially in analysis among young generation. Thus, this paper differentiates the two terms "entrepreneurial orientation" and "entrepreneurial propensity" based on time and place. Entrepreneurial orientation is a status quo in an already existing business context. Entrepreneurial propensity is a status quo before stepping into this context. This assumption is supported by the findings of Cho and Lee (2018) who put forward the result that entrepreneurial education has no connection with entrepreneurial orientation or business performance. Regional aspects in entrepreneurial orientation research represent valuable inputs like the network approach of Jiang et al. (2018) or Priyono et al. (2020). We expect the progression of the existing literature rooted from this point. Knowledge management, education and intellectual capital (examined by Abu-Rumman, 2018) may also have a significant effect on future entrepreneurs. Besides Abu-Rumman (2018), Taheri et al. (2019) also turn towards knowledge management through market-focused learning and present the effects of comprehensive performance measurement systems on it. We can conclude that the conceptualization of the propensity of future, potential entrepreneurs is in its early stages, especially if we would like to include regional elements. To strengthen the above introduced gap, the paper details empirical results of propensity of youngsters in different regions and regional engagement.

How the young generation interprets their own status quo

Pruett et al. (2009) examined over 1000 students at universities in the USA, Spain, and China in their article. They concluded, that while cultural and social elements explain only a small part of propensity, psychological self-efficacy is a significant forecaster. The study highlights the fact that further directions are needed for analyzing the relationship between entrepreneurial culture and psychological elements. Pruett et al. (2009) and Abdullah et al. (2019) suggested that transfer of entrepreneurial knowledge can better serve students if they are handled with creativity and the establishment of confidence.

Turker et al. (2009) came to the conclusion in their study that promoting entrepreneurship requires a dual policy that handles the current situation and future prospects of the business. In their study, a model was implemented and empirically tested on 300 university students in Turkey. In the entrepreneurial support model, entrepreneurial propensity is considered as a function of educational, relational, and structural support. The consequences of the survey demonstrated that educational and structural support elements have an effect on the entrepreneurial propensity of the students. Youngsters are potential entrepreneurs of the future and understanding their perception of contextual elements can contribute to the development of the educational literature. It is an important step in developing a more effective policy mechanism.

Palalić et al. (2017) analyzed the entrepreneurial propensity of students at the International University of Sarajevo. Accordingly, they studied the entrepreneurial desires and orientations of the students with the help of previous entrepreneurial experience, student gender, faculty, year of study, and attitudes toward several courses related to entrepreneurship. The research also dealt with how the business environment has an effect on the entrepreneurial propensity of the students. Their research was based on 173 respondents from the beginning of April to the end of May in the 2015/2016 school year. Palalić et al. (2017) as well as Dvorský and Petráková (2019) claimed that entrepreneurial propensity can be caused by the business environment and entrepreneurship education.

Borsi and Dőry (2020) examined entrepreneurial innovation, entrepreneurial intention, and entrepreneurial process in their studies. They also analyzed the Big Five Personality Trait. They came to the conclusion, that the interplay of institutional elements, individual personality characteristics and the assessment of opportunities play a significant role before entrepreneurial decisions are taken.

Schwarz et al. (2009) highlighted the key elements which have an impact on the willingness of students to establish a business. They applied a model which focused on three viewpoints: entrepreneurial propensity, general approach, university and regional environment. 2124 cases were taken into account. There was only a correlation between university and student interest in starting a business. Other environment factors had no impact on entrepreneurial propensity among students in Austria. In addition, remarkable differences can be found in entrepreneurial propensity regarding age, gender and field of study.

Faltermeier (2019) compared entrepreneurship and entrepreneurial propensity with entrepreneurial skills and knowledge. The definition and systematization of entrepreneurial competence were examined. Entrepreneurship is one of the eight key competences of the European Framework of Reference; this competence enables people to turn their ideas into reality. This requires a willingness to be creative, innovative

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and risk-taking. Entrepreneurial competence is an everyday skill that can be of great importance in both private and professional settings.

The following research objectives can be deduced from the underlying theoretical framework:

- on the one hand, the development of an objective, reliable and valid tool for the initial measurement of entrepreneurial intent.
- on the other hand, conducting an empirical study.

Berthold et al. (2006) examined in their survey the entrepreneurial willingness of firms operating in Germany. Theoretically and empirically, it has been demonstrated that entrepreneurs recognize untapped opportunities and realize them. To this end, a model has been presented that traces the degree of entrepreneurship in society back to supply and demand factors. Supply-side factors influence the entrepreneurial skills and attitudes of an individual or society. In this way, the entrepreneurial skills of an economy are determined. Examples are a country's income level or demographic development. Demand factors, in turn, affect the business opportunities and opportunities of potential or existing entrepreneurs. Examples are the level of technological development of the economy or its participation in global trade. If business supply and demand match, economic growth can no longer be increased by changing entrepreneurship in a country. Due to the equilibrium mechanism, a new equilibrium is formed in the case of exogenous changes.

For this mechanism to work, the public framework must meet at least four conditions:

- guaranteeing private property rights
- free market entry and exit
- individual contractual freedom
- as little government intervention as possible that affects market performance.

Goebel et al. (2016) argued that many regional business development agencies are trying to implement a cluster-oriented strategy. In doing so, they face two tasks: first, they need to identify areas of regional competence that offer the preconditions for cluster-oriented economic development. Second, they need to be confident in their entrepreneurial networking willingness. The article presents an analysis selected from a number of analyses in which, based on the definition of areas of competence, company surveys were conducted on the relevance of the networks. They concluded that they clearly show the interest of companies in the development of the network and also provide information on the desired areas of work and cooperation partners of the networks.

Gärtner et al. (2010) and Krause (2016) emphasized that the interaction of corporate and regional culture leads, under certain conditions, to a vicious circle—a regional development dynamic—in which entrepreneurial and regional activities are mutually reinforcing. The continuous interaction of different cultural mediums, the right balance between attachment to the region and international orientation, the

socio-cultural foundations of networking activities and the regional participation of different stakeholders are among the key factors that define the virtuous circle of Region development. Regional identities derive from the interaction of dynamics and continuity, which are affected by constant renewals and changes. Regional engagement is an opportunity that basically any company can realize.

Fritsch et al. (2012) came to the conclusion that the regional level of entrepreneurship has been characteristic for a long time. In particular, they were able to show that the East German regions, which could look back on a long tradition of entrepreneurship, had a relatively high proportion of entrepreneurs in the working-age population even at the end of the German Democratic Republic period. During the transformation process, these remnants of entrepreneurial culture had a significant positive impact on regional start-ups and the regional level of entrepreneurial independence in the following years. It was found that many of these regions have coped relatively well with the transformation process since 1990 and have achieved particularly high growth in gross domestic product. In their view, this finding means that long-term imprints, such as a high level of entrepreneurship or an entrepreneurial culture in a region, can lead to challenges in the development process. There are significant differences in the types of regional growth system within East and West Germany and East Germany. These differences mean that in each case, other factors shape development. Their analyses clearly show that the study of long-term regional developments can make a significant contribution to understanding typical regional development patterns.

Not only Maschwitz (2017), but also Ankraha and AL-Tabbaab (2016) claimed that collaboration between universities and companies faces particular challenges, especially given the high transaction costs due to different organizational cultures and the resulting lack of trust. An entrepreneurial culture in universities is needed to enable long-term and sustainable cooperation between partners and to create an environment conducive to cooperation. The article examines the related challenges at the university level and the possibilities for managing collaboration. Collaboration between universities and commercial enterprises has become increasingly important in recent years, both in research and in studies, education and training. Working with employers as well as chambers and professional associations, it is possible to meet the needs of potential target groups. In addition, universities are increasingly involved in social activities. Accordingly, universities have at least three main areas of activity:

- development, marketing and implementation of target group-specific study tools (advanced studies)
- increase interoperability and open universities to new target groups (widening participation)
- science to the public (community outreach).

In our understanding, entrepreneurial propensity is also a complex platform to measure like orientation. It is affected by many external and internal elements in the economy and in an individual being before in the status quo of entrepreneur. At the same time, we can see many effects arising from education, culture and also environment. In Fig. 1, we summarize the link between the knowledge elements above detailed.

Time frame

Entrepreneurial orientation	
Entrepreneurial propensity	
Regional engagement: opportunity can be realized by anybody.	
1. Motivators of being a better entrepreneur 2. Environmental heterogenety and innovation capabilities 3. Dynamic capabilities in entrepreneurial networks 4. Specialized economies and entrepreneurial orientation 5. Relatively low effect of education on entrepreneurial orientation 6. More existing competences 7. More specified objectives 8. More untapped opportunities in a given business environment	1. Desire to be entrepreneur 2. Effect of cultural and social elements 3. Psychological self-efficiency 4. Creative elements in knowledge transfer, confidence establishment 5. Entrepreneurial propensity as function of education, which can be rooted from business environment, institutional elements and university 6. More desired competences 7. More general objectives 8. More untapped opportunities in general
Entrepreneurial orientation is related more to micro environments. Future status quo of exact cases in an existing business context.	**Entrepreneurial propensity reach future entrepreneurs in their status quo before stepping into a business context.**
Gap definition: mediating effects of environmental elements may need more research especially in analysis among young generation in order to give inputs to knowledge management, education and intellectual capital.	

Fig. 1 Knowledge elements and research gap. Source: own design based on literature in the paper

In this paper, our definition for entrepreneurial propensity is differentiating itself in one important point: it is understood for the future. We agree that with the logic of systemizing the main knowledge elements of entrepreneurial orientation and propensity give the previously assumed knowledge gap. Figure 1 represents the systematization of knowledge base, which highlights the need for studying the research gap in order to find useful inputs to knowledge management, education and intellectual capital.
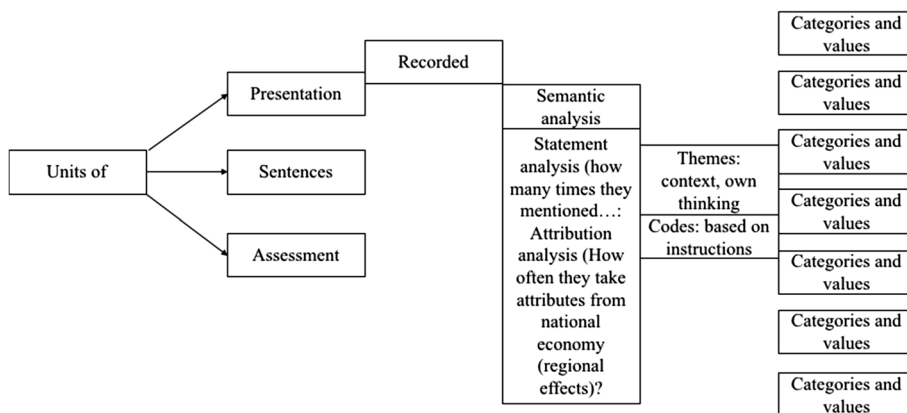
Steps taken with this goal are represented in detail by the next points of the article. The basic logic is the systematic analysis of business plans of youngsters, who are able to collect and get statistical information from their economies.
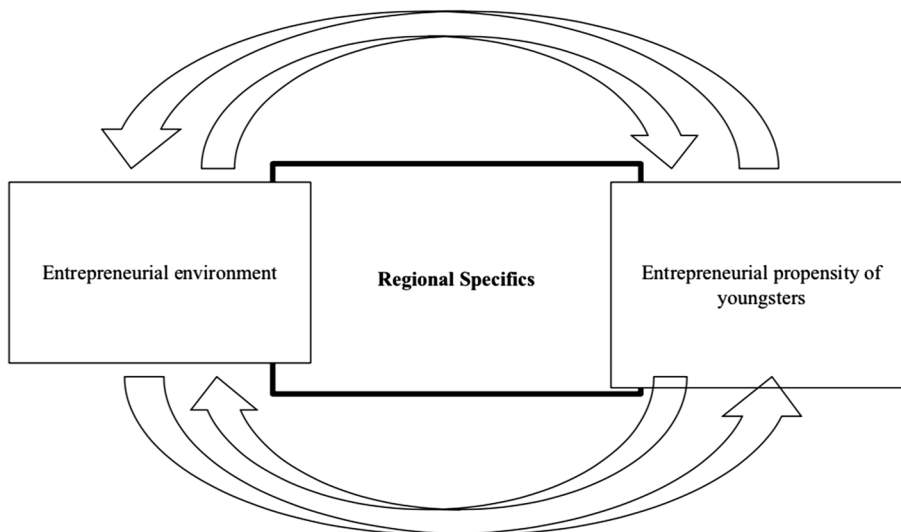
Data and methods

The methodology that we utilize is semantic analysis. Based on Sulaeman & Korkontzelos (2021), semantic analysis is a method that focuses on understanding the meaning of the text. This method has been widely used in studying the literature quantitatively, in computer-mediated textual data analysis, in customer response and interview examination as well.

We collected data from students' business concepts from different countries and extracted those parts of information, which can give interesting input to obtain regional effects in making business. We applied semantic coding analysis. Youngsters from 12 countries received the same project work, with the same instructions to create a business. The analysis was directed in a way, that we presented pre-defined instructions. We received written student assessments and presentations, in which we recorded the text to further content analysis. In Fig. 2, we summarize our coding scheme. It can be seen that we had seven categories, to which we ordered values. Values are presented later in Table 2.

Our basic question was whether we can define specialties in entrepreneurial propensity, which are interconnected with economic, social or other data of economic

Fig. 2 Coding scheme and units of analysis. Source: own design

Fig. 3 Research concept. Source: own design

environment? In other words: are there definable regionally specific components in the ideas? Based on this, our general hypothesis was that there are definable regionally specific components in the business ideas of making an enterprise in different nations. Figure 3 represents our research concept.

Focusing on these questions, Category 7 was an attribution semantic analysis from SWOT reports, where we counted how many times the elements from national economy were mentioned. In this respect, we could extract two ranges: one which solely considers entrepreneurial propensity and another which considers the national economic data. The more data were given from national economy, the concept contained more exact plan elements. Hypothetically, we expected two different ranges. Besides all of this, we knew that is worth considering each category, because entrepreneurial propensity in regional context is a comprehensive term in itself.

Data collection

The experiment took place in an international student group. There were 84 students participating and they were divided into groups of 6–8 people. Each group had to collect data from own nations and had to create a business concept—they had to create their own firm and detail the conditions of foundation and operation. As output, students had to submit a report, which followed the instructions provided by the instructor.

The main logic of the pre-defined instructions represented by Table 1 followed the basic function of TAT and Rorschach tests. Firstly, the participants got a picture about highlighted indicators of their national economy and then they had to explain their own reasoning in the context of this picture.

Students received these instructions in the form of handouts and had a deadline to make the project work. To ensure the intensity of participation, they had to give the ratios of contribution of each group member. As a summary, the basic logic of the empirical research was "know your parameters and start to play". That is how we expected some regional-specific effecting factors on individual entrepreneurial propensity.

Data analysis

The above listed instructions were converted into categories. Table 2 shows the converted data, which lies on categories, scale values and descriptive content.

Table 2 shows in the third column, values or scores are related to the categories. The more content was shared in the business idea, the more points were given in the analysis. As it can be seen, there are scores based on our research concept to which theoretical arguments can be raised. As an example, it is naturally not an agreed thesis, if someone would like to start a large business, they have a higher level of entrepreneurial propensity. But we scaled all the data in order to create the concept comprehensively. On the other hand, there are values, where it is obvious that the scale numbers were added based on how detailed the ideas were. With some ideas, there were concrete step-by-step descriptions. In other cases, the participating youngsters did not follow the range of the instructions or did not mention any informative content. We wanted to define which

Table 1 Summary of instructions

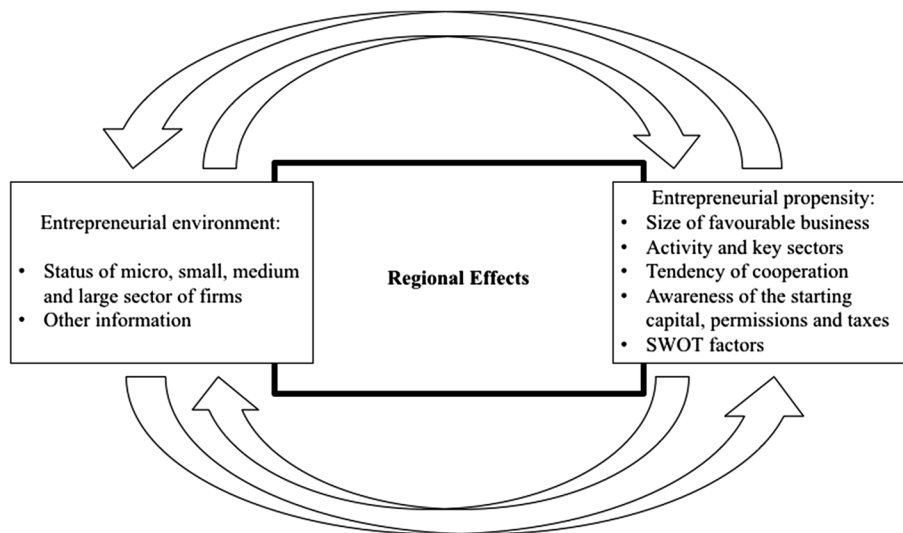| Instructions for the student projects |
| --- |
| 1. Context: Students had to make their own nations' pictures first—they had to discover first the business environment through finding some national statistical data: |
| 1.1. Micro sector (size, typical activities, ratio in employment, ratio in export, other information) |
| 1.2. SME sector (size, typical activities, ratio in employment, ratio in export, other information) |
| 1.3. Big companies (size, typical activities, ratio in employment, ratio in export, other information) |
| 2. Own thinking: Then, they had to share their own ideas in light of this picture—they created a business idea and detailed how would they operate |
| 2.1. Investigate the launch of a business employing at least 5 people |
| 2.2. How much capital do you need to start officially? |
| 2.3. What kind of permissions do you need? |
| 2.4. What kind of taxes do you have to pay? |
| 2.5. How and with whom would you cooperate? Define some cooperative partners (other companies, institutions like universities) |
| 2.6. Introduce a SWOT as a summary of the above-mentioned instructions |

Source: own source based on the empirical survey represented in the paper

Table 2 Data converted from instructions into categories of analysis

Nr. of instruction	Categories	Values
1.1, 1.2., 1.3., 2.1	C1. Size of the favorable business	(0: micro, 1: small, 2: medium, 3: large)
1.1, 1.2., 1.3	C2. Activity and key sectors	(0: did not name exact activity, 1: named the activity, 2: detailed the activity, 3: willing to start the presented activity/ 0: not in the key sector, 1: serving the key sector, 2: key sector)
2.5	C3. Tendency for cooperation	(0: not mentioned, 1: mentioned, 2: + partner mentioned, 3: + activity mentioned)
2.2	C4. Awareness of the starting capital	(0: not mentioned, 1: mentioned, 2: + amount mentioned, 3: + source mentioned)
2.3	C5. Awareness of permissions	(0: not mentioned, 1: mentioned, 2: + permission types mentioned, 3: + step-by-step process of creating business mentioned, 4: + knowing extra permissions to export)
2.4	C6. Awareness of taxes	(0: not mentioned, 1: mentioned, 2: + taxes types mentioned)
2.6	C7. SWOT factors	(Based on attributes from national economy increasing range from 1 mention)

Source: own design

Fig. 4 Entrepreneurial propensity in the light of entrepreneurial environment. Source: own design

idea has a higher level of propensity. At the same time, we admit that there are arguable elements in the logic of scaling. With this intention, we present one research concept, which can be modified as its logic is transparent. Besides all of this, we can say that we managed to discover some parts of the propensity and find some national specific elements with the logic of the experiment. Figure 4 shows the concept and the categories.

Delegating the values represented by Table 2, we can represent the highest or the lowest propensity. These two-limit categories are the following:

– Highest propensity: the participants are planning to establish a relatively large company with the highest number of employees. The activity of the business would connect to the key industrial sector of the national economy. They are planning to coop-

erate with an exact partner in an exact part of their activity or operation. They know how much starting capital they need and state its source or sources. They know all the permissions they need to obtain to start the business. They clearly see the obligatory different types of taxes this entails.

– Lowest propensity: the participants are planning to run a small business, with relatively few employees, which is not connected to the nation's key sector at all. They are not willing to cooperate with partners and do not know the required starting capital, the permissions and the taxes to run the business.

Besides these, the SWOTs (instruction 2.6) gave details and contents to the business concepts and also valuable information to examine the relation between the business environments and propensity.

The above introduced research concept and its methodology received important information from the student presentations. We could check all the missing instructions during the presentations. We asked the students why they did not include the given elements of instructions in the submission. They gave their reason, they had rational answers or they had the opportunity to say that they did not want to. The presentations had the controlling function in the data collection.

Discussion and results

Countries and data—entrepreneurial environment

As was previously mentioned, there were 12 countries involved in the experiment. The following tables (Tables 3, 4, 5, 6, 7, Fig. 5) summarize the data from the picture of the economic environment related to the experiment. Figure 3 calls it "status of micro, small medium and large sector and other data":

– GDP/capita on PPP
– employment rate
– Firm classification among number of employees
– Firm classification among annual revenue

Table 3 GDP/capita on PPP in 2017 (thousand EUR/year)

Country	Thousand EUR/year
Slovakia	24.3
Hungary	23.2
Turkey	21.9
Mexico	15.6
China	11.3
Azerbaijan	11.1
Georgia	10.7
Tunisia	8.3
Jordan	7.7
India	4.9
Palestine	4.3
Ghana	3.9

Table 4 Employment rate in 2016 (%/year)

Country	Micro	Small	Medium	Large
Azerbaijan	6.30		93.70	
China	0.00	50.00	36.00	14.00
Georgia	n.a			
Ghana	n.a			
India	n.a			
Jordan	n.a			
Mexico	n.a			
Palestine	n.a			
Slovakia	41.80	14.80	15.50	27.90
Tunisia	23.34	0.00	40.55	76.66
Turkey	n.a			
Hungary	35.77	17.88	12.84	33.51

Source: Aggregated and corrected statistical data from student reports

Table 5 Firm classification among number of employees (people)

Country	Micro	Small	Medium	Large
Azerbaijan	1–25		26–125	125–
China	1–19	20–150	151–630	630–
Georgia	n.a			
Ghana	1–5	6–29	30–100	100–
India	1–9	10–49	50–250	250–
Jordan	1–9	11–50	50–250	250–
Mexico	1–10	11–50	51–100	100–
Palestine	1–5	6–20		20–
Slovakia	1–10	11–50	50–250	250–
Tunisia	1–9		10–100	100–
Turkey	1–10	11–50	50–250	250–
Hungary	1–9	10–49	50–249	249–

Source: Aggregated and corrected statistical data from student reports

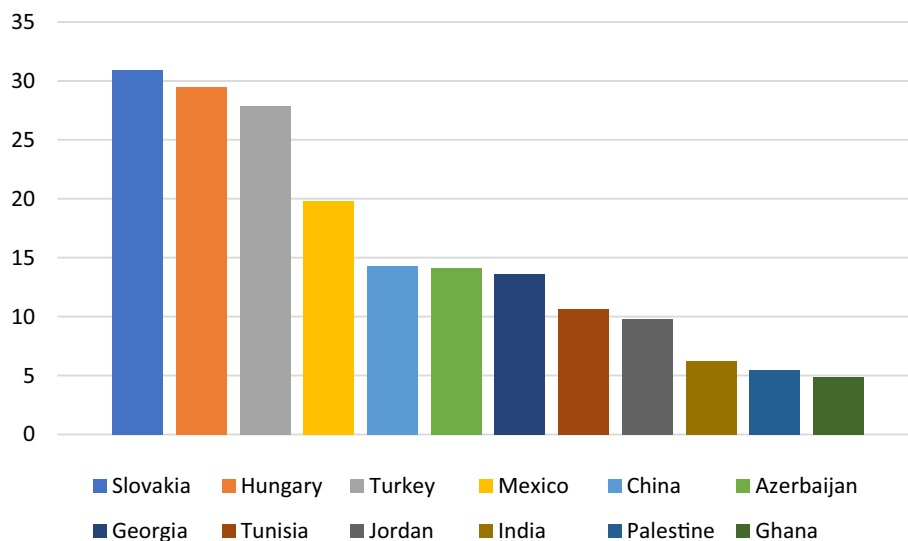**Table 6** Firm classification among annual revenue (thousand EUR)

Country	Micro	Small	Medium	Large
Azerbaijan	1–105		105–658	658–
China	1–28	28–258	258–3279	3279–
Georgia	n.a			
Ghana	n.a			
India	1–641	641–9621	9621–32,071	32,071–
Jordan	n.a			
Mexico	n.a			
Palestine	1–18	18–89		89–
Slovakia	1–2000	2000–10,000	10,000–50,000	50,000–
Tunisia	n.a			
Turkey	1–147	147–1172	1172–5860	5860–
Hungary	1–2000	2000–10,000	10,000–50,000	50,000

Source: Aggregated and corrected statistical data from student reports

Table 7 Export rate by firm classification, 2016 (%/year)

Country	Micro	Small	Medium	Large
Azerbaijan	56		44	
China	0.00	19.62	24.59	55.78
Georgia	n.a			
Ghana	n.a			
India	n.a			
Jordan	7.85	2.60	37.86	51.68
Mexico	0.90	10.90	9.31	78.88
Palestine	5.17	90.43	0.00	4.40
Slovakia	14.20	11.20	16.80	57.80
Tunisia	n.a			
Turkey	n.a			
Hungary	30.00		70.00	

Source: Aggregated and corrected statistical data from student reports

Fig. 5 GDP/capita on PPP in 2017 (thousand EUR/year). Source: Aggregated and corrected statistical data from student reports

- Export rate by firm classification
- regulation regarding the size of the companies (number of employment and annual revenue of the micro, small, medium, large companies).

The main selection criterion of students and countries was the different status of macroeconomic structures in different countries. In other words: the bigger the difference in the entrepreneurial environment, the more chance we have to discover regional differences in propensity.

Therefore, Azerbaijan, China, Georgia, Ghana, Hungary, India, Jordan, Mexico, Palestine, Slovakia, Tunisia and Turkey were selected in the study. The statistical numbers were given by the students and after they were controlled by us. In case of a significant deviation, we corrected the numbers. The numbers which were not given

Table 8 Values to categories based on coding—entrepreneurial propensity

Countries/Categories	C1	C2	C3	C4	C5	C6	C7	Sum
Turkey	2	3.3	3	1	1	3		15
Ghana	3	1.3	1	1	3	3		15
Jordan	3	1.1	2	2	3	3		15
Hungary	0	3.2	3	0	3	3		14
Slovakia	1	2.2	2	1	3	3		14
Georgia	2	2.3	2	0	2	3		14
India	0	0.0	2	3	3	3		11
China	0	0.0	2	3	3	3		11
Azerbaijan	3	1.1	1	2	1	2		11
Palestine	1	1.0	2	1	2	3		10
Tunisia	3	1.1	3	0	1	1		10
Mexico	3	1.1	3	0	1	1		10

Source: own design based on data received from the survey

by students are left as missing numbers. This means that they did not involve this regional information, so it is a zero-effect in this context.

Entrepreneurial propensity

We divided our discussion into three topics based on the dominating results of the research focus. The very first observation is that applying this research context gave very obvious differences. It served the validity of the data collection, but also gave a good summary of the aspects which can differ the most in the case of comparing youngsters' business concepts. Searching the relation between the entrepreneurial environment and propensity supplied important information in answer to the question of what has an important effect, particularly on youngsters' entrepreneurial propensity. Table 8 represents the categorization of countries based on values used for coding.

Obvious differences and not obvious similarities

Activities of the businesses were expectedly different in the projects. Let us mention some typical ones: transport company in Palestine, training institute for graduates in Azerbaijan, providing social services in Jordan, innovative solar panel device in Ghana, marketing agency in Hungary, franchise food stores in Slovakia, store for electric devices in Turkey, touristic service in Georgia. It was not expected by us that in the case of China and India, the group members did not really name any exact activity, instead their concept was to evaluate the business starting activity in general. They highlighted all the taxes and permissions and evaluated them as a very difficultly reachable milestone. Also, they mentioned existing businesses as a barrier to step into the market. They emphasized the significance of expat entrepreneurs and their world. They evaluated the national economy as a highly compatible one, but their propensity scored relatively low compared to the others in this research concept, due to the lack of an exact idea. They said that it is a good opportunity to start a business in a strong country. At the same time, they said that it is almost impossible to obtain the required permissions and have the starting capital. The national economy was evaluated strong and developing thanks to large companies. The participants could present all the legal steps and permissions to

make a business. At the same time, they relatively did not have a concrete idea. We can conclude that countries, where the base of large companies is relatively strong, shown especially by the classification of firm sizes by the number of employees, youngsters are less willing to start a business.

Regarding the size of companies favored by youngsters, it was a relatively expected outcome that in the case of ideas, where not large companies were established, the legal and taxation procedures were more detailed. It this context, we can say that the research concept served also obvious cause and effect relations, which means that its logic is verifiable. The smallest firms (5 people as this was the minimum size in the instructions) were planned in case of Hungary, Tunisia and Mexico. If we think over these in the light of market structures, we can say that in all three cases the FDI sector of large companies is significant, but the MSME sector is also a significant employer. In these cases, the students presented the step-by-step processes in making the business, from the very first permission to the export strategy with all the general and special taxes. From these, we concluded that in markets where the MSME sector is a significant employer, the business concepts contained more detailed, step-by-step details of the creation process. The idea owners were aware of all legal and other conditions of creating a business. Therefore, the willingness to create small companies was more rational.

The economic and social problems of the countries were highlighted the most often in the case of Jordan, Ghana and Palestine. Here we observed exact reasoning, which is regional effect and has a strong influence on making business. In case of Jordan, the concept was a social aid project, which deals with refugees and migrants in order to integrate them into different platforms of local society. The idea of a solar panel device project in Ghana referred several times to the environmental problems of the country. In the case of Palestine the transport idea served the wellbeing of poor people. Therefore, it can be concluded that in those nations, where exact social, environmental and economic problems were defined by the youngsters, the first missions of business ideas were to deal in some way with those macro problems. At the same time, we observed that in the case of these business ideas, exact detailing of the business concept was poorer compared to the others.

In this research context, which is of course open to debate, we can define the "highest propensity". Turkey's project proved to be the most detailed one with a project of online–offline, community-based sale platform. Of course, there were weaknesses in the project, but in this case, we got the details for all the expected instructions. The activity was well defined and is connected to the retail sector. It was based on multiple cooperation not only toward individuals, but also toward institutions like universities. The students were aware of all the permissions and taxes and showed the willingness to start the business, which can be presented on the export market. The "lowest propensity" is evaluated in the case of China, where the whole shortfall arose from the fact that students did not name the exact activity and the other instructions were not detailed either. They talked a lot about the strong economy and the cooperation between the FDI actors and local economic actors. They mentioned general rules, like the obligation to have a Chinese partner when doing business in China. It seemed it was self-explanatory for them that they do not start a business by themselves in their own country without a foreign partner. It was interesting to hear this concept.

Table 9 Values to categories based on coding—entrepreneurial propensity and regional effects

Countries/Categories	C1	C2	C3	C4	C5	C6	C7	Sum
Turkey	2	3.3	3	1	1	3	7	22
Ghana	3	1.3	1	1	3	3	7	22
Jordan	3	1.1	2	2	3	3	7	22
Georgia	2	2.3	2	0	2	3	6	20
Hungary	0	3.2	3	0	3	3	4	18
Slovakia	1	2.2	2	1	3	3	4	18
India	0	0.0	2	3	3	3	7	18
China	0	0.0	2	3	3	3	7	18
Tunisia	3	1.1	3	0	1	1	5	17
Mexico	3	1.1	3	0	1	1	7	17
Palestine	1	1.0	2	1	2	3	6	16
Azerbaijan	3	1.1	1	2	1	2	2	13

Source: own design based on data receives from the survey

We know how strong China's economy is. At the same time, this context showed that despite a strong economy, youngsters' willingness to start a business is not high. So, there is poor connection between a strong economy and youngsters' entrepreneurial propensity.

Relation between environment and propensity

We can say that the logic of the research gave an insight into the link between the business environment and propensity. "Know your parameters and start to plan" logic emphasized the regional mediating effects in almost all the student projects. At the same time, they fulfilled the task—they integrated the elements of their nations' entrepreneurial environment into the business concepts. The integration on each element was on a different level. Economies with a relatively stronger sector of large companies do not directly equate to higher propensity. Problems in the national economies were mentioned several times in those business concepts, where the construction was less detailed. This empirical research also showed that neither strong economy, nor poor economy has a direct effect on individual entrepreneurial propensity. In the case of economies where national parameters were not relatively different and the question of security in economies was not a topic, youngsters provided more exact business plans and the willingness to think in small was higher. Table 9 is representing the coding supplemented with Category 7.

Conclusion

The goal of the study was to find mediating regional effects on the presented business ideas by youngsters. We discovered links and possible causes of barriers in their propensity, which can originate from the environment. As theoretical implication, the term of entrepreneurial propensity had to be clarified in order to present the arguments. It was differentiated from entrepreneurial orientation and interpreted in the context of regional effects and youngsters.

The logic of the practical implication is an own-built research structure. Our goal was not to define general cause and effect relations, which can not quite be substantiated in this topic. Besides all of these, we can make general conclusions in topics of education, intellectual capital and knowledge transfer from the results presented in the previous point. If we understand propensity to be a range of detailed and concrete ideas for the future, we can assume that the more special element a national economy has (relatively stronger sector of large firms, exact definable problems), the fewer concrete ideas were presented. Where the MSME sector is wider, small business ideas have a future and the participants consider the permission and taxation procedures more.

For the scope of future research, there are universal questions, in which the adaptation capability of education and knowledge management have significant responsibility. How do youngsters see the future of creating business in their own environment? It is a crucial question in the present climate, where migration, economic-epidemic crisis, globalization and instability are hot topics. The general viewpoint about the significant importance of knowledge transfer and education is represented here as well. This research concept is only one logic of characterizing entrepreneurial propensity in the light of the entrepreneurial environment. We should say that our sample is of course not a representative one. At the same time, it is a good tool to pre-measure the environmental related status quo of possible future entrepreneurs already in education phase. Through this, the identification of priorities in making businesses can be more punctual and customized.

A limitation of the research is that making a general comparison for the whole society would not make sense with this concept as the literature also says entrepreneurial propensity is an internal and traditional (Fritsch et al., 2012) phenomenon. This experiment and its outcomes were suitable to give small insight into youngsters' mind and their ideas, fears and motivations in the light of their national economies, which is a very important topic especially in those economies, where the opportunities to step into the market requires significantly more knowledge.

Other limiting effects in this study come mainly from the understanding of the term "entrepreneurial propensity". At the same time, this was a required logic to underpin the research. Besides the above presented structure, there are other conceptualizations as well. Entrepreneurial orientation is also a dominant term, which has very similar elements, but represents another kind of research logic on the empirical level. That's why we chose this concept in the positioning of the interpretation of entrepreneurial propensity. Methodology represented in this paper is also suitable in the case research of people before being the position of being an entrepreneur. Propensity may can be better measured in the very first step of the business planning stages.

Abbreviations

BDAC	Big Data Analytics Capabilities
EO	Entrepreneurial orientation
MSME	Micro, small & medium enterprises
USA	United States of America
SMEs	Small medium sized enterprises
SWOT	Strength weakness opportunity threat
TAT	Thematic Apperception Test
GDP	Gross Domestic Product
PPP	Purchasing Power Parity

Availability of data and materials

The data that support the findings of this study are available from the authors, upon reasonable request. Due to the nature of the research, some parts of the data are not available as participants of the study did not agree for their data to be shared publicly.

Declarations

Competing interests

In accordance with our ethical obligation as researchers, we are reporting that we have competing interest. We can apply for publication scholarship with the issued article which is called by Szechenyi Istvan University or its partner institutions after successful publication. We are managing and avoiding any potential conflicts by involving the article in any financial interests.

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