

Chapter 12

Country Wealth Influencing University Students' Perceptions on Entrepreneurship Feasibility: A Survey



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12.1 Introduction

Entrepreneurship studies have been attracting more attention in the last few years. Several articles provide a background and discuss the importance of entrepreneurship under a variety of circumstances, such as Ács et al. [1], van Stel et al. [2], and Intrama et al. [3]. University students of today are, undoubtedly, the leaders of tomorrow. Therefore, it is vital to understand their ideas, preferences, opinions, and perceptions in general, as to get a sense of what to expect from these future leaders and also to identify weaknesses and potential for improvements. Given the role both entrepreneurship and students play in our society, it is important to put those in context and to study them. Dabic et al. [4] have touched upon the convergence between students and entrepreneurship and this research is another building block to be added to the body of knowledge on the field—hoping to advance the understanding of our future leaders and how they perceive such a critical pillar of modern civilization. This study research question is:

- RQ: Is a country's Gross Domestic Product (henceforth referred to as GDP) per capita associated with university's students perceived feasibility of entrepreneurship?

This study makes use of a dataset generated by surveying students in nine European and Asian countries to delineate their perception of entrepreneurship in

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their countries. In addition, the economic power of each country is contrasted against its students' perceptions, in an attempt to identify a pattern. Existing literature linking students and their willingness and perceptions toward entrepreneurship have been focusing on factors such as gender and educational requirements, briefly dwelling on students' countries characteristics. This study, on the other hand, has primarily dealt with the proposed intersection between economic power and perceptions of entrepreneurship feasibility.

12.2 Literature Review

By analyzing entrepreneurship literature, one can easily realize that its importance is closely related to its correlation with economic growth. According to scholars, entrepreneurial activities tend to lead to higher and more intensive economic activity—as explained in the following paragraphs—and that would be entrepreneurship's greatest contribution to society.

Economic growth has been proven to enhance people's quality of life and minimize social tensions. Technology development and the creation of jobs, thus stimulating consumption, are closely related to generating economic growth, as briefly discussed in Ács et al. [1]. Brown and Mason [5] also argue that innovation and technology are important vectors of economic growth. Entrepreneurship, in turn, is said to help in the creation of jobs, technology development, and economic development. Intrama et al. [3] argue that there is a close relationship between creativity, entrepreneurship, and economic development. The authors state that “creativity and entrepreneurship are key success factors of creative economy-driven policy.” Interestingly, when policies promoting entrepreneurship are put in place, investors tend to get higher returns and thus tend to invest even more in the region, creating a virtuous cycle that generates a more robust and resilient economy. A research piece was conducted and proved this point by investigating the interesting relationship between venture capitalists, angel investors, and entrepreneurship policies in China [6]. The researchers found that entrepreneurship policies would serve as guidance for investors and would influence their return on investments, especially when the amounts involved are high. Furthermore, van Stel et al. [2] found that entrepreneurship activity can produce a positive effect on economic growth. Therefore, it is important to understand the entrepreneurial spirit, in order to promote it and take advantage of it. More specifically, it is important to study and understand the way people regard entrepreneurship as an activity—its advantages, disadvantages, desirability, feasibility, and other aspects.

Richer countries have historically been associated with economic freedom and with easy and simple processes for its citizens to start their own businesses. Furthermore, rich countries' histories are intimately related to entrepreneurship in general [7]. Also, research has shown young people and university students are more prone to become entrepreneurs [8–10]. Schaeffer and Matt [11] investigated the role of academic institutions in promoting entrepreneurship, ultimately

generating regional economic development. Therefore, for policy-makers who want to stimulate entrepreneurial spirit among its citizens, it is vital to focus their attention and efforts toward these groups. Dabic et al. [4] have also dealt with the entrepreneurship question among students. The researchers have used the Mann-Whitney nonparametric test to study gender differences in entrepreneurial intentions among university students.

The perceived feasibility and perceived desirability toward entrepreneurship have been related to factors such as gender, country, and educational requirements in previous studies [4, 12, 13]. Therefore, it seems logical to try to extend this work and correlate the Gross Domestic Product (GDP) per capita with the way its citizens perceive the entrepreneurship feasibility. Moreover, having in mind what has been found so far about university students and entrepreneurship, it would be very interesting to investigate how that segment of society regards the entrepreneurship feasibility in their countries. This leads to my hypothesis, as follows:

- h1: University students from countries with higher GDP's/capita will perceive entrepreneurship endeavors as more feasible.

This study also considers two extra variables in this context, namely student status and employment status. Student status depicts the extent to which the student dedicates him/herself to the studies. It is important to include this variable as a control in this study, since poorer countries might have more part-time students (because they may have to work to pay for their studies) and students that work may be more prone to become entrepreneurs, thus perceiving a higher feasibility in it. Employment status depicts the student's professional life. It is also important to include this variable as a control in this study, since poorer countries may have more "working" students, and also, the student's professional experience may influence the way he/she regards entrepreneurship (if the student already has its own business, it might perceive a higher feasibility in it). Including these control variables in models enables a less biased estimation of the relationship between country GDP and perceived feasibility of entrepreneurship. Hence, accounting for these extra factors enables the researcher to identify and explain any potential spurious relationships and its effects on the final model results. More information on the variables used is provided in the Method section.

The following figure demonstrates the relationships to be investigated in this research, in a graphical fashion (Fig. 12.1).

12.3 Data and Methods

Technology management researchers in Europe collected the dataset used to conduct this research. The topical focus of the dataset is entrepreneurship among university-level students. University students from nine European and Asian countries (Croatia,

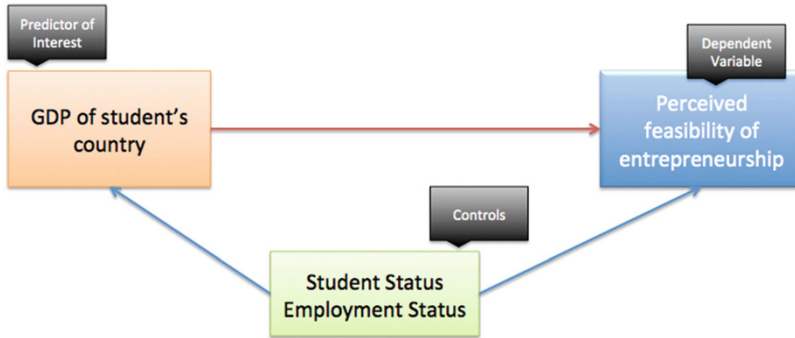


Fig. 12.1 Conceptual model of study

Austria, Belgium, France, Israel, Lithuania, Poland, Slovenia and India) were surveyed regarding a wide variety of aspects related to entrepreneurship, such as background information, future professional intentions, reasons why one would or would not start a business, questions related to the perception of entrepreneurship feasibility and desirability, previous work experiences, relatives' and family members' work experiences, the effects of their relatives' choices and experiences on their own career choices, and educational-related questions. In total, the dataset is comprised of 4455 cases. Since there were no missing values on the dependent variable, no cases were excluded and the analytic sample is comprised of the whole dataset, that is, 4455 cases. Missing values on independent variables were addressed with mean/mode imputation.

12.3.1 *Dependent Variable*

The dependent variable of this study is the perceived feasibility of entrepreneurship among university students in the nine studied countries. This variable was constructed from five other variables that, in an isolated fashion, aimed at measuring different aspects of the entrepreneurship feasibility, such as the perceived difficulty in starting a business, the level of certainty of success and failure, and the amount of knowledge and effort that should be put into such an endeavor. These five original variables were categorical ones, each of which had six categories measuring less or more perceived feasibility. The original variables were recoded to make sure all of them had the same directionality and were combined into a single feasibility index. The index was composed of the mean of the respondent's answers to the original variables—thus the final variable is a continuous one. Since the original variables had six categories, the resulting index ranges from 1 to 6—1 being the lowest

perception of feasibility and 6 being the highest perception of feasibility. The Cronbach's alpha for the perceived entrepreneurship feasibility index is 0.544.

12.3.2 Predictor of Interest

The predictor of interest is the Gross Domestic Product (GDP) per capita of the respondent's country—this variable was not in the dataset. Once the information was collected from IECONOMICS INC [14], a variable was created and the values were assigned accordingly. As a last adjustment, the values were divided by 1000 so that the regression coefficients would not be impacted by the difference in scale of the studied variables—i.e., the range for the dependent variable is from 1 to 6, while the original range for the predictor of interest was from \$1476 to \$47,950. The adjusted values for the predictor of interest range from 1.48 to 47.95, as shown in the descriptive statistics table—enabling a more meaningful interpretation of the regression models results.

12.3.3 Controls

The control variables utilized in this study are student status (dichotomous variable where full-time students represent value 1 and part-time students represent value 0) and employment status (own a business; works for someone else; unemployed; retired). Because both control variables relate to the dependent variable and the predictor of interest, including these variables in the model improves the estimate of the relationship between students' country GDP per capita and students' perception of the feasibility of entrepreneurship (shielding the analysis from potential spuriousness).

12.3.4 Analytic Plan

At first, descriptive statistics are shown for all variables involved in the study. Then, linear regression models are estimated to analyze how students' country GDP per capita relates to students' perception of the entrepreneurship feasibility.

The first model shows the GDP per capita of the University student's country predicting his/her perception of entrepreneurship feasibility. The second model shows the same relationship, with the addition of student status and employment status as controls.

12.4 Results

12.4.1 Descriptive Statistics

Table 12.1 depicts the descriptive statistics. As already mentioned, the number of cases in this study is 4455. The range of GDP per capita is quite large, with India the lowest (US\$1480.00) and Austria the highest (US\$47,950.00). The average GDP per capita for the sample is US\$22,670.00. After dividing these values by 1000, we have a range from 1.48 to 47.95, and the average is 22.67. The dependent variable (perceived feasibility of entrepreneurship), as discussed earlier, is an index ranging from 1 to 6. Values closer to one would mean a perception of lower feasibility, while values closer to six would mean a perception of higher feasibility. The value three would mean a neutral perception (neither positive nor negative). The average for the sample is slightly above three (3.23). Concerning the student status, the sample is mostly composed of full-time students, with only 12% part-time students. As for the employment status, the vast majority of respondents are in the workforce (82%)—22% have their own business and 60% work for someone else. Among the respondents who are out of the labor market, 12% are retired and 5% are currently unemployed.

12.4.2 Linear Regression

Table 12.2 depicts the results from linear regression models predicting the perceived entrepreneurship feasibility among university-level students. Results in the first model show that, on average, with every one-thousand-US-dollar increase in the

Table 12.1 Descriptive statistics

	Mean	SD	Range
GDP/capita of student's Country (div by 1k)	22.67	(13.16)	(1.48, 47.95)
Perceived feasibility of entrepreneurship	3.23	(0.68)	(1, 6)
<i>Student status</i>			
Full-time	0.88		(0, 1)
Part-time	0.12		(0, 1)
<i>Employment status</i>			
Has own business	0.22		(0, 1)
Works for someone else	0.60		(0, 1)
Currently unemployed	0.05		(0, 1)
Retired	0.12		(0, 1)
Students (<i>n</i>)	4455		

Note: GDP stands for gross domestic product

Table 12.2 Coefficients from regression models predicting the perceived feasibility of entrepreneurship

	Model 1	Model 2
	<i>B</i> (SE)	<i>B</i> (SE)
GDP/capita of Student's Country (div by 1k)	-0.01*** (0.00)	-0.01*** (0.00)
<i>Student status</i>		
Part-time (ref.)		-
Full-time		-0.12*** (0.03)
<i>Employment status</i>		
Has own business (ref.)		-
Works for someone else		-0.09*** (0.03)
Currently unemployed		-0.15*** (0.05)
Retired		-0.17** (0.04)
Constant	3.36*** (0.02)	3.55*** (0.04)
<i>R</i> -squared	0.01	0.02

Note: Approximately 4455 students used to estimate each model

Note: GDP stands for gross domestic product

+ $p < 0.10$, * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

country GDP per capita, student's perceptions of the feasibility of entrepreneurship decrease by 0.01 unit. The relationship between GDP per capita and perceived entrepreneurship feasibility is statistically significant ($p < 0.001$) but very weak. Strikingly, the influence is shown to be negative, contradicting my hypothesis. As opposed to what I hypothesized, the higher the GDP per capita, the lower the university-level student's perceived feasibility of entrepreneurship. Some possible explanations and recommendations for future studies are provided in the Sect. 12.5. Results from model 2 show that, on average, the perceived feasibility of entrepreneurship is 0.12 units lower for university students who work full-time relative to those who work part-time. As for the employment status, comparing against students who have their own businesses, those who work for someone else, on average, have a perceived entrepreneurship feasibility 0.09 units lower. Similarly, on average, those who are currently unemployed and retired have a perceived entrepreneurship feasibility of 0.15 and 0.17 units lower, respectively. All the observed relationships among the control variables are statistically significant, with p values being less than 0.001 ($p < 0.01$ for the "retired" category). Furthermore, the control variables do not alter the relationship between the predictor of interest and the dependent variable. The second model (net of controls) shows precisely the same relationship between the GDP per capita and the student's perception of entrepreneurship feasibility (on average, with every one-thousand-US-dollar increase in the country GDP per capita, student's perceptions of the feasibility of entrepreneurship decrease by 0.01 unit) and the relationship is still statistically significant ($p < 0.001$).

12.5 Conclusion

This study was conducted to identify and define the relationship between a country's economic power (GDP per capita) and its university-level students' perception of entrepreneurship feasibility. Data collected by surveying 4455 students in nine European and Asian countries was used and linear regression models were applied to analyze the data.

The research question asked if a country's GDP per capita is associated with university's students' perceived feasibility of entrepreneurship, and the hypothesis went on to assert that university students from countries with higher GDPs per capita perceive a higher feasibility in entrepreneurship endeavors. Nevertheless, results show that the hypothesis was clearly rejected—not only the relationship between these two variables is extremely weak, but the increased economic power of a nation seems to negatively affect its students' perceptions when it comes to entrepreneurship (the higher the GDP per capita, the lower the perceived entrepreneurship feasibility). One can think about possible explanations for this pattern. For instance, richer countries, given their superior economic performance, might be taking entrepreneurship for granted, thus not instructing its students about its strategic importance toward sustained economic development. Moreover, given the increase in the size of the state among European countries in the last few decades, excessive taxations and regulations might be gradually affecting the willingness of people to lean toward more risk-taking and challenging endeavors, such as starting a business.

The generalization of these research findings has to be done in a prudent and cautious fashion. The dataset used in this study was collected from university-level students in nine countries. However, the sample might not be representative because it is not certain that the sample represents, proportionately, the gender, age, and study area distribution in those countries, among other important factors. Furthermore, other countries might have a different academic setting and students with different mindsets. Having that in mind, it would not be prudent to extrapolate these results to other regions. In addition, although the study has made use of control variables to improve the linear regression estimates, the influence of unmeasured factors might also be considered a limitation.

Notwithstanding its limitations, this research piece improves the body of knowledge concerning entrepreneurship and has the potential to inform future researchers and policy-makers, aiming to further understand how students regard and understand entrepreneurship, ultimately leading to better policies. According to my findings, economic power is not positively associated with an increase in the perceived entrepreneurship feasibility. However, further studies should be conducted in order to validate these findings and explore other aspects related to the research question. Specifically, future study opportunities could look into how entrepreneurship instruction impact students' perceptions and inclinations toward entrepreneurship. Also, researchers could compare the amount of entrepreneurship-related courses and

degrees offered in universities in both best-performing countries and worst-performing countries, as a means to delineate the potential dependency “entrepreneurship teaching and entrepreneurship action.” Lastly, qualitative and quantitative studies could be conducted to analyze tax regulations, labor regulations, and entrepreneurship incentives in those countries.

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