

Entrepreneurship Education (EE)

Subjects: [Education & Educational Research](#)

Contributor: Anca Otilia Dodescu

The fast growth of Entrepreneurship Education (EE) in universities reflects the underlying assumption that EE fosters increased levels of entrepreneurship. Nowadays, EE is related to much more than economic activities and business creation. Policymakers support EE for unlocking personal potential and its contribution to developing key competencies for lifelong learning. European Union defined entrepreneurship competence as “the capacity to act upon opportunities and ideas and to transform them into values for others”. The most important barriers to youth business creation and self-employment are the lack of knowledge and skills for entrepreneurship and the fear of failure, which highlights the importance of building entrepreneurship competencies and confidence for youth in a multidisciplinary environment and “embedding entrepreneurship teaching at all levels of education”.

[student's entrepreneurship](#)

[entrepreneurship education](#)

1. Introduction

Universities are well situated for building youth's entrepreneurial competencies. Fostering entrepreneurial awareness and incorporating entrepreneurial mindsets into students' attitudes through EE are increasingly recognized as part of a university's role [\[1\]](#)[\[2\]](#)[\[3\]](#).

Universities are encouraging students to consider entrepreneurship as a potential career path mainly by the provision of theoretically oriented courses which teach 'about' entrepreneurial traits, awareness, the impact of courses or impact of different cultures on entrepreneurship [\[4\]](#) and provide training in conventional management-related subjects such as business plans, marketing, financial management or small business management [\[5\]](#).

Of all outcomes of EE, EI is considered the best single predictor of entrepreneurship behavior [\[4\]](#)[\[6\]](#)[\[7\]](#)[\[8\]](#). This assumption is embedded in a large body of research in the field focusing on EI (51%, according to Nabi et al. [\[9\]](#)). In most empirical research, EI is simply defined as “the intention to start a new business” [\[2\]](#) at some point in the future that might be imminent, indeterminate, although it may never be reached [\[10\]](#). Another popular approach considers EI as the intention to become self-employed [\[11\]](#).

In our analysis, we draw on Souitaris et al. [\[12\]](#) to define the benefits for students of EE: learning, program-derived entrepreneurial inspiration, and incubation resources. Learning covers the entrepreneurship knowledge acquired by students during the EE program. Inspiration is seen as a change of heart and mind, or a change of emotion and motivation provoked by the EE program and oriented towards considering becoming an entrepreneur [\[12\]](#). Finally, the incubator resources cover advice from faculty members and from a pool of entrepreneurial-minded classmates

from building a team. We also emphasize that the benefits of EE are being built in an entrepreneurship program, which includes a portfolio of activities complementing the traditional teaching.

2. Empirical Approaches to Estimations of Entrepreneurial Intentions

A large body of empirical estimations of EI has been guided by two models: Shapero and Sokol's Model of Entrepreneurial Event [13] and Azjen's Theory of Planned Behavior [14].

Shapero and Sokol's Model of Entrepreneurial Event (SEE) considers that EI is predicting actual entrepreneurship behavior. As factors that control an individual's EI, SEE is focusing on perceived desirability, feasibility, and propensity to act. In the context of EI, perceived desirability refers to how attracting is the entrepreneurship endeavor for a person. Perceived feasibility quantifies the degree to which one feels capable of starting a business [15], and perceived propensity to act reflects the volitional aspects of intention [11].

Starting from SEE and due to the integration of major social psychology theories: the social cognitive theory (SCT) [16][17] and the theory of planned behavior (TPB) [14][18], empirical analyses of the EI are increasingly common, most of them have developed their own models. Integrated and mixed versions of SEE, SCT, and TPB have served as major theoretical grounds for these models.

Although it was not developed specifically for EI, it has become popular in modeling EI after its empirical validation [19]. In the context of EI, TPB states that intentions are determined by attitudes toward entrepreneurship, subjective norms (or perceived social pressure to engage or not in entrepreneurship), and perceived behavioral control.

Obviously, TPB and SEE models have overlapping mechanisms of EI formation. In an effort to integrate both theories, Krueger et al. [15] argue that subjective norms overlap with desirability and feasibility and that feasibility overlaps with perceived behavioral control. In their turn, Iakovleva and Kolvereid [11] show that perceived desirability and feasibility, integrated into one construct, mediate the influence of attitude, subjective norms, and perceived behavioral control on EI.

In sum, the TPB models have been developed to improve the estimation of intentions and, when applied to estimating the EI, they successfully explain from 40% to 60% in the variation of the EI construct, which represent a significant improvement over the initial estimations of EI which were only controlling for personal traits [11].

Nevertheless, improvements to the general framework of the TBP and SEE model have been proposed in EI empirical research. Efforts have been made in search of an individual characteristic specific to entrepreneurship. Consequently, the Entrepreneurial Self Efficacy (ESE) concept was introduced for the study of EI [19][20]. ESE refers to the belief in an individual's ability to succeed in entrepreneurial endeavors [21]. The same research points out that ESE is a task-specific construct, addressing the lack of specificity problem, specific to previous research which controls for personality traits in EI estimations. Moreover, empirical research in the field documents the statistically

significant relationship between ESE and EI, with studies even considering ESE as closest to actual entrepreneurship behavior [20]. In this respective, ESE acts upon the EI and entrepreneurial emotions. From here, the benefits of ESE lead to actual entrepreneurial behavior, venture creation, and entrepreneurial performance [22].

3. Transmission Mechanisms of the Benefits of Entrepreneurship Education to Entrepreneurial Intentions

We can draw on Human Capital Theory (HCT) to understand the mechanism that enables EE to enhance entrepreneurship. Building on the THC, many studies [23][24][25] have argued that human capital attributes are the main determinants of entrepreneurial success. Of course, human capital encompasses not only knowledge and skills related to formal or non-formal EE but also aspects related to previous work experience and role models [26][27][28][29][30][31].

Also, the socio-cognitive models have been a suitable approach to analyze the mechanism of the benefits of EE to EI. ESE is essential in the context of measuring the EI as an output of EE, providing an important theoretical perspective linking the two concepts. According to Bandura's SCT [16][17], there are four processes influencing self-efficacy development: mastery experiences, role modeling and vicarious experience, social persuasion, and judgments of one's own physiological states. Zhao et al. [6] analyze the specific configuration of ESE as an antecedent of EI. They argue that the pedagogical practices specific to entrepreneurship courses impact, without exception, all these processes: "enactive mastery (simulated business exercises, best business case competition, the provision of venture capital to entrepreneurship students), role modeling and vicarious experience (successful local entrepreneurs invited to lecture, case studies of prestigious entrepreneurs presented, project work with an entrepreneur, etc.), social persuasion (students' projects evaluation, students' career mentoring, etc.), judgments of one's physiological states (helping students to develop their psychological coping strategies through examples of the lifestyles and working styles of successful entrepreneurs, etc.)."

As **Figure 1** shows, firm characteristics and cultural and institutional environment also contribute to the development of the ESE construct.

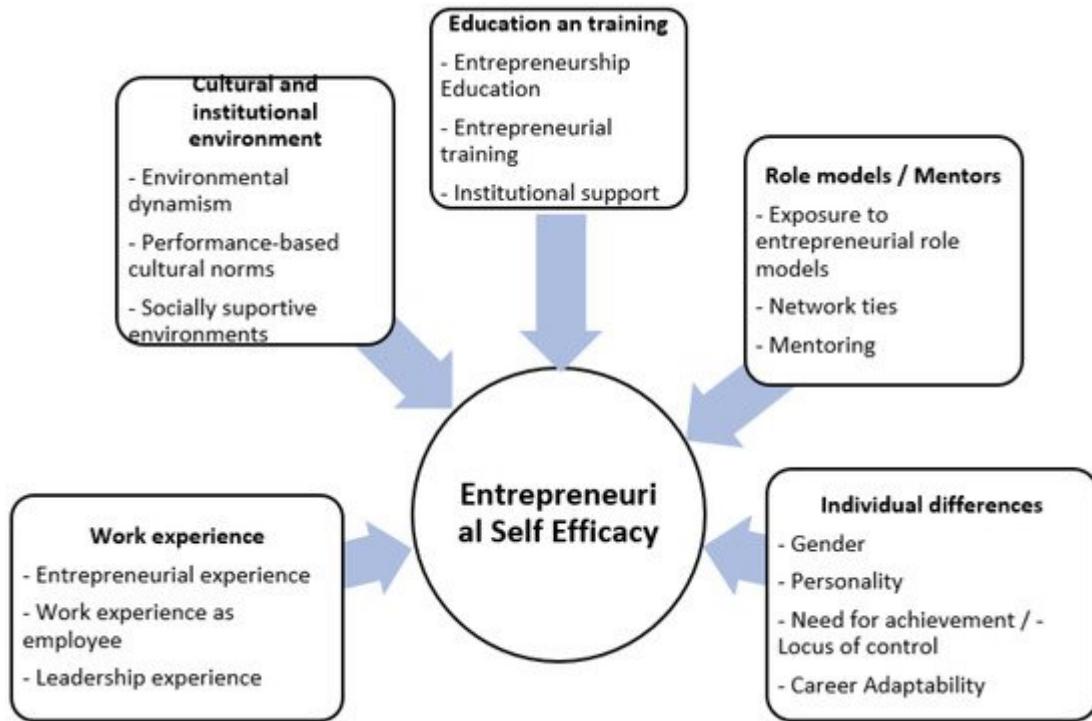


Figure 1. The antecedents of Entrepreneurial Self-Efficacy. Source: Adapted from Newman et al., 2019 [22].

HCT and SCT provide thereby the two theoretical perspective linking EE to EI and further on to entrepreneurship behavior. Accordingly, the TPB models have been used to analyses the influence of EE on students' EI [8].

4. Cross Campus Entrepreneurship Education Approach

Numerous empirical studies that explore the efficiency of entrepreneurial university supply worldwide, including Romania [32][33][34][35][36][37], show that the EI is significantly positively related to the entrepreneurial orientation of the university [28]. It is widely recognized that business orientation is a significant determinant of students' attitude toward entrepreneurship [32][38][39], and entrepreneurial education should be extended outside the business school [40], especially at engineering programs [33][41].

As a response to criticism about its coverage area and effectiveness, EE has broadened its objectives and means worldwide, allowing students from all levels and fields of study to develop their entrepreneurial skills in parallel with life skills and career coaching.

EE expansion beyond economics faculties and business schools has given entrepreneurship education increased flexibility and greater applications [42]. Cross-campus EE [42][43][44] or radiant university-wide model in EE [45][46] is focusing on the specific context of non-Economics students with entrepreneurship courses outside the Faculty of Economics. A cross-campus approach to EE is considered "extremely appealing to students" [46] because it allows the formation of entrepreneurial competencies within the faculty and customized on the specialization followed, but it has two major disadvantages: high cost and administrative difficulties.

If these obstacles are overcome, the cross-campus EE approach opens the perspective of a broad rethinking of entrepreneurship education in universities outside the Economics faculties and Business schools [47][48]. The advantages of this model of entrepreneurship education are much greater from the perspective of customizing entrepreneurial education in the students' field of study. This model simulates the students' EI in their field of study and allows EE to connect with self-employment and employability.

As Decker-Lange [49] recently showed, "employability and entrepreneurship skills overlap", this is the reason why cross-campus EE is helpful in nurturing not only entrepreneurship and self-employment but also employability.

5. Entrepreneurship Education and Its Contribution to Inclusive Entrepreneurship

The origin and practice of inclusive entrepreneurship are linked to a project having the same name led by Syracuse University in partnership with the Burton Blatt Institute. The program has fostered a better understanding of the entrepreneurial ecosystem and the skills needed for successful entrepreneurs, providing participants with opportunities to channel their creativity, develop the skills and the drives for entrepreneurial pursuits [50].

The concept of inclusive entrepreneurship was quickly adopted by policymakers throughout the world. OECD approaches inclusive entrepreneurship from a mixed perspective: business creation for disadvantaged or under-represented groups in entrepreneurship and self-employment for people at risk [51] (pp. 18–19). Inclusive entrepreneurship has also been addressed within the European Union's strategy for more and better jobs through the Community for Practice on Inclusive Entrepreneurship (COPIE) project led to developing specific tools for under-represented groups in entrepreneurship.

In recent years, youth have been a typical target group for inclusive entrepreneurship policy in European Union and OECD countries. European Commission has included entrepreneurship competence as a key competence that all individuals need for personal fulfillment and social inclusion [52]. Consequently, EE also serves the objective of inclusiveness through its contribution to increasing the human capital of students. Among the best practices in Romanian higher education, we mention that already Romanian universities are using EE as a tool for increasing the attractiveness of its educational content, contributing to alleviating the school dropout phenomenon, which, in Romania, is considered a social risk [53][54][55][56].

Within the framework of inclusive entrepreneurship, extensive research is focusing on gender differences in entrepreneurship. Research has documented the existence of a gender gap in entrepreneurship, with women being less successful entrepreneurs than men [57][58][59]. Some studies directly associate entrepreneurial intention with masculine traits [60][61][62].

References

1. European Commission. Entrepreneurship in the EU and Beyond. In *A Survey in the EU, EFTA Countries, Croatia, Turkey, the US, Japan, South Korea and China. Analytical Report; Flash Eurobarometer 283—The Gallup Organization; Directorate-General for Communication*; Brussels, Belgium, 2009; Available online: http://www.emnconference.org/archives/data/file/section_microfinance_europe/fi283_en.pdf (accessed on 24 September 2020).
2. Bosma, N.; Hill, S.; Ionescu-Sommers, A.; Kelley, D.; Guerrero, M.; Schott, T. *Global Entrepreneurship Monitor 2020/2021 Global Report; GEM Global Entrepreneurship Monitor; Global Entrepreneurship Research Association*; London Business School: London, UK, 2020.
3. Fayolle, A.; Gailly, B.; Lassas-Clerc, N. Assessing the impact of entrepreneurship education programmes: A new methodology. *J. Eur. Ind. Train.* 2006, 30, 701–720.
4. Pittaway, L.; Cope, J. *Entrepreneurship Education*. *Int. Small Bus. J. Res. Entrep.* 2007, 25, 479–510.
5. Sirelkhatim, F.; Gangi, Y. Entrepreneurship education: A systematic literature review of curricula contents and teaching methods. *Cogent Bus. Manag.* 2015, 2, 1052034.
6. Zhao, H.; Seibert, S.E.; Hills, G.E. The Mediating Role of Self-Efficacy in the Development of Entrepreneurial Intentions. *J. Appl. Psychol.* 2005, 90, 1265–1272.
7. De Pillis, E.; Reardon, K.K. The influence of personality traits and persuasive messages on entrepreneurial intention. *Career Dev. Int.* 2007, 12, 382–396.
8. Ozaralli, N.; Rivenburgh, N.K. Entrepreneurial intention: Antecedents to entrepreneurial behavior in the U.S.A. and Turkey. *J. Glob. Entrep. Res.* 2016, 6, 1.
9. Nabi, G.; Liñán, F.; Fayolle, A.; Krueger, N.; Walmsley, A. The Impact of Entrepreneurship Education in Higher Education: A Systematic Review and Research Agenda. *Acad. Manag. Learn. Educ.* 2017, 16, 277–299.
10. Thompson, E.R. Individual Entrepreneurial Intent: Construct Clarification and Development of an Internationally Reliable Metric. *Entrep. Theory Pract.* 2009, 33, 669–694.
11. Iakovleva, T.; Kolvereid, L. An integrated model of entrepreneurial intentions. *Int. J. Bus. Glob.* 2009, 3, 66.
12. Souitaris, V.; Zerbinati, S.; Al-Laham, A. Do entrepreneurship programmes raise entrepreneurial intention of science and engineering students? The effect of learning, inspiration and resources. *J. Bus. Ventur.* 2007, 22, 566–591.
13. Shapero, A.; Sokol, L. The Social Dimension of Entrepreneurship. In *Encyclopedia of Entrepreneurship*; Kent, C.A., Sexton, D.L., Vesper, K.H., Eds.; Prentice Hall: Englewood Cliffs, NJ, USA, 1982; pp. 72–90.

14. Ajzen, I. The theory of planned behavior. *Organ. Behav. Hum. Decis. Process.* 1991, 50, 179–211.
15. Krueger, N.F., Jr.; Reilly, M.D.; Carsrud, A.L. Competing models of entrepreneurial intentions. *J. Bus. Ventur.* 2000, 15, 411–432.
16. Bandura, A. *Social Foundations of Thought and Action: A Social Cognitive Theory*; Prentice-Hall: Englewood Cliffs, NJ, USA, 1986.
17. Bandura, A. *Self-Efficacy: The Exercise of Control*; Freeman: New York, NY, USA, 1997.
18. Ajzen, I. The theory of planned behaviour: Reactions and reflections. *Psychol. Health* 2011, 26, 1113–1127.
19. Krueger, J.N.F.; Brazeal, D.V. Entrepreneurial Potential and Potential Entrepreneurs. *Entrep. Theory Pract.* 1994, 18, 91–104.
20. Boyd, N.G.; Vozikis, G.S. The Influence of Self-Efficacy on the Development of Entrepreneurial Intentions and Actions. *Entrep. Theory Pract.* 1994, 18, 63–77.
21. Chen, C.C.; Greene, P.G.; Crick, A. Does entrepreneurial self-efficacy distinguish entrepreneurs from managers? *J. Bus. Ventur.* 1998, 13, 295–316.
22. Newman, A.; Obschonka, M.; Schwarz, S.; Cohen, M.; Nielsen, I. Entrepreneurial self-efficacy: A systematic review of the literature on its theoretical foundations, measurement, antecedents, and outcomes, and an agenda for future research. *J. Vocat. Behav.* 2019, 110, 403–419.
23. Bates, T. Entrepreneur Human Capital Inputs and Small Business Longevity. *Rev. Econ. Stat.* 1990, 72, 551.
24. Unger, J.M.; Rauch, A.; Frese, M.; Rosenbusch, N. Human capital and entrepreneurial success: A meta-analytical review. *J. Bus. Ventur.* 2011, 26, 341–358.
25. Crook, T.R.; Todd, S.Y.; Combs, J.G.; Woehr, D.J.; Ketchen, D.J. Does human capital matter? A meta-analysis of the relationship between human capital and firm performance. *J. Appl. Psychol.* 2011, 96, 443–456.
26. Bosma, N.; Stam, E.; Wennekers, S. *Intrapreneurship—An International Study*; EIM Research Reports; EIM: Zoetermeer, The Netherlands, 2010.
27. Rauch, A.; Frese, M. Psychological approaches to entrepreneurial success: A general model and an overview of findings. In *International Review of Industrial and Organizational Psychology*; Wiley: Chichester, UK, 2000; pp. 101–142.
28. Krabel, S. Are entrepreneurs made on campus? The impact of entrepreneurial universities and graduates' human capital on graduates' occupational choice. *J. Int. Entrep.* 2017, 16, 456–485.
29. Oftedal, E.M.; Iakovleva, T.A.; Foss, L. University context matter. *Educ. Train.* 2018, 60, 873–890.

30. Kolvereid, L. Prediction of Employment Status Choice Intentions. *Entrep. Theory Pract.* 1996, 21, 47–58.

31. Mazzarol, T.; Volery, T.; Doss, N.; Thein, V. Factors influencing small business start-ups. *Int. J. Entrep. Behav. Res.* 1999, 5, 48–63.

32. Leovaridis, C.; Frunzaru, V.; Cismaru, D. Entrepreneurial Education in Romanian Universities. In Proceedings of the INTED 2016 Conference, Valencia, Spain, 7–9 March 2016; Volume 1, pp. 92–102.

33. Alexe, C.G.; Deselnicu, D.C.; Ioanid, A.; Țigănoaia, B.; Mustață, C. Entrepreneurship Education between Perceptions and Expectations. Case Study; University Politehnica of Bucharest: Valencia, Spain, 2018; pp. 791–799.

34. Szabo, Z.; Marian, L. Pedagogical Methods and Models for Entrepreneurship Education in Romania: Case Study. In Proceedings of the 6th European Conference on Innovation and Entrepreneurship, ECIE 2011; Academic Conferences and Publishing International Limited: Aberdeen, Scotland, UK, 15 September 2011; pp. 805–811.

35. Fellnhofer, K.; Puumalainen, K. Can role models boost entrepreneurial attitudes? *Int. J. Entrep. Innov. Manag.* 2017, 21, 274–290.

36. Soria-Barreto, K.; Honores-Marin, G.; Gutiérrez-Zepeda, P.; Gutiérrez-Rodríguez, J. Prior Exposure and Educational Environment towards Entrepreneurial Intention. *J. Technol. Manag. Innov.* 2017, 12, 45–58.

37. Vodă, A.I.; Florea, N. Impact of Personality Traits and Entrepreneurship Education on Entrepreneurial Intentions of Business and Engineering Students. *Sustainability* 2019, 11, 1192.

38. Morillo, B.J.; Avila-Rondon, M.; Alfaro-Pozo, R. Analysis of Knowledge, Perception and Assessment of Innovation and Entrepreneurship Competence by Bachelor's Degree Students. In Proceedings of the Rethinking Learning in a Connected Age, Valencia, Spain, 5 March 2018; pp. 3157–3160.

39. Overall, J.; Gedeon, S.A.; Valliere, D. What can universities do to promote entrepreneurial intent? An empirical investigation. *Int. J. Entrep. Ventur.* 2018, 10, 312.

40. Turner, T.; Gianiodis, P. Entrepreneurship Unleashed: Understanding Entrepreneurial Education outside of the Business School. *J. Small Bus. Manag.* 2018, 56, 131–149.

41. Barba-Sánchez, V.; Atienza-Sahuquillo, C. Entrepreneurial intention among engineering students: The role of entrepreneurship education. *Eur. Res. Manag. Bus. Econ.* 2018, 24, 53–61.

42. Schneider, M. Kauffman Campuses Initiative: A Study That Explores the Phenomenon of Cross-Campus Entrepreneurship. Ph.D. Thesis, University of Pennsylvania, Philadelphia, PA, USA, 2015.

43. Katz, J.A.; Roberts, J.; Strom, R.; Freilich, A. Perspectives on the Development of Cross Campus Entrepreneurship Education. *Entrep. Res. J.* 2013, 4, 4.

44. Welsh, D.H.B. Creative Cross-Disciplinary Entrepreneurship: A Practical Guide to a Cross Campus Program; Palgrave-MacMillan: New York, NY, USA, 2014.

45. Morris, N.M.; Kuratko, D.F.; Pryor, C.G. Building Blocks for the Development of University-Wide Entrepreneurship. *Entrep. Res. J.* 2013, 4, 45–68.

46. Streeter, D.H.; Jaquette, J.P.; Hovis, K.; Streeter, D.H.; Jaquette, J.P.; Hovis, K. University-Wide Entrepreneurship Education: Alternative Models and Current Trends; Cornell University: Ithaka, NY, USA, 2002.

47. Roberts, J.; Hoy, F.; Katz, J.A.; Neck, H. The Challenges of Infusing Entrepreneurship within Non-Business Disciplines and Measuring Outcomes. *Entrep. Res. J.* 2014, 4, 1–12.

48. Roberts, J. Infusing Entrepreneurship Within Non-Business Disciplines: Preparing Artists and Others for Self-Employment and Entrepreneurship. *J. Entrep. Arts* 2012, 1, 53–63.

49. Decker-Lange, C. Three Reasons Why We Should Think about Employability in Entrepreneurship Education; Centre for Innovation in Legal and Business Education (SCiLAB), Faculty of Business and Law, The Open University: Milton Keynes, UK, 2021.

50. Pilková, A.; Jančovičová, Z.; Kovačičová, Z. Inclusive Entrepreneurship in Visegrad4 Countries. *Procedia Soc. Behav. Sci.* 2016, 220, 312–320.

51. Organisation for Economic Co-Operation and Development/The European Commission (OECD/EC) (Ed.) The Missing Entrepreneurs: Policies for Inclusive Entrepreneurship in Europe; OECD Publishing: Paris, France, 2013; pp. 18–19.

52. Key Competences for Lifelong Learning; European Commission. Directorate-General for Education, Youth, Sport and Culture; Publications Office of the European Union: Luxembourg, 2019; ISBN 978-92-76-00475-2.

53. Dodescu, A.O.; Cohut, I.C.P. Youth Entrepreneurship and Role Models at Local Level. Case Study: Bihor County, Romania. In Proceedings of the Rethinking Social Action. Core Values in Practice; LUMEN Publishing: Iasi, Romania, 2018; pp. 117–134.

54. Dodescu, A.; Pop-Cohuț, I. Inclusive Entrepreneurship in Romania in the Context of European Union: Theoretical Issues and Emerging Challenges. In Proceedings of the 6th LUMEN International Conference on Rethinking Social Action Core Values, Iasi, Romania, 16–19 April 2015; pp. 463–468. Available online: https://moam.info/rethinking-social-action-core-values_5977936b1723dde28b57d429.html (accessed on 24 May 2021).

55. Dodescu, A.; Cohuț, I.P.; Borma, A. A local perspective about students' entrepreneurship. Evidence from Romania. *Integr. Politics Res. Innov.* 2018, 393–403.

56. Lazăr, A.; Hatos, A. European Philanthropic Behavior Patterns: Charitable Giving, Non-Profit and Welfare Regimes in the European Union. *Transylv. Rev. Adm. Sci.* 2019, 15, 21–40.
57. Reynolds, P.D.; Hay, M.; Bygrave, W.D.; Camp, S.M.; Autio, E. Global Entrepreneurship Monitor: 2000 Executive Report; Kauffman Center for Entrepreneurial Leadership at the Ewing Kauffman Foundation: Kansas, MO, USA, 2001.
58. Aldrich, J. Fisher and Regression. *Stat. Sci.* 2005, 20, 401–417.
59. Yang, T.; Aldrich, H.E. Who's the Boss? Explaining Gender Inequality in Entrepreneurial Teams. *Am. Sociol. Rev.* 2014, 79, 303–327.
60. Ahl, H. Why Research on Women Entrepreneurs Needs New Directions. *Entrep. Theory Pract.* 2006, 30, 595–621.
61. Lewis, H.R. Excellence without a Soul: Does Liberal Education Have a Future? PublicAffairs: New York, NY, USA, 2007; ISBN 978-1-58648-501-6.
62. Gupta, V.K.; Turban, D.B.; Wasti, S.A.; Sikdar, A. The Role of Gender Stereotypes in Perceptions of Entrepreneurs and Intentions to Become an Entrepreneur. *Entrep. Theory Pract.* 2009, 33, 397–417.

Retrieved from <https://encyclopedia.pub/entry/history/show/33140>