

Entrepreneurship Education Around the World: A Study on Member Universities of the Association to Advance Collegiate Schools of Business

Zeynep Baysal

Department of Business Administration, OSTIM Technical University, Ankara, Türkiye

zeynep.baysal@ostimteknik.edu.tr

Abstract: It has long been debated whether people are born entrepreneurs or if it is a combination of skills and knowledge that can be acquired through education and training. While there are passionate scholars on both sides of the debate, the increasing number of studies and programs focusing on training people on how to become entrepreneurs perhaps shows that the balance is shifting in favour of the latter side. The purpose of this study is to examine how universities are performing the task of teaching entrepreneurship by focusing on member institutions of the Association to Advance Collegiate Schools of Business (AACSB). A total of 461 out of 1794 institutions that are members of the AACSB member directory were examined for the study. First, descriptive statistics were used to determine the number of bachelor's and master's degree programs that focus directly on entrepreneurship education along with lower-level programs such as minors and certificates. This was supplemented by examining additional entrepreneurship-related best practices employed by these institutions, such as entrepreneurship centres or certificate programs. All analyses were bifurcated by examining results based on criteria such as educational level, geographical location, and AACSB accreditation. The results show that although almost all business schools have included some form of entrepreneurship courses in their curricula, the number of programs or degrees directly dedicated to entrepreneurship remains a minority. In addition to classroom teachings, some of these institutions offer innovative practices related to entrepreneurship, such as entrepreneurship scorecards, entrepreneurship competitions, and certificate programs. All data collected and analysed were used to develop an overview of undergraduate and graduate level entrepreneurship education to encourage institutions and individuals to develop entrepreneurship programs that cover all theoretical and applied aspects of entrepreneurship education to support aspiring entrepreneurs along their journey.

Keywords: Entrepreneurship education, Association to Advance Collegiate Schools of Business, Case study

1. Introduction

Entrepreneurship education, which can be defined as any activities undertaken by institutions to teach individuals how to become entrepreneurs, is one of the key items of the Entrepreneurial Framework Conditions stipulated by Global Entrepreneurship Monitor (GEM) which lays down the conditions that support or hinder new business creation (GEM, 2024). However, it is reported in the GEM 2023/2024 report that entrepreneurial education is the weakest assessed of all items, which indicates there are some issues to be fixed in this area. The debate of whether entrepreneurship can be taught or is an inherent quality that people are born with lays the foundation of the quality and the quantity of entrepreneurship-oriented education. This debate also shapes the methods of teaching entrepreneurship and the mindset of entrepreneurship scholars. As many fields of higher education, entrepreneurship education is also changing to keep up with the trends which raises the question of how the universities and colleges of today undertake the task of teaching entrepreneurship.

1.1 Purpose

The purpose of this study is to examine how entrepreneurship is being taught by higher education institutions and provide an overview that encompasses the best practices. For this purpose, the institutions included in the member directory of the Association to Advance Collegiate Schools of Business (AACSB) were studied regarding the entrepreneurship-oriented education they provide as well as the extra-curricular activities they undertake such as holding entrepreneurship competitions, offering certificate programs, and establishing entrepreneurship centres. The findings were used to provide an overview of entrepreneurship education to provide insights to higher education institutions aspiring to provide extensive entrepreneurship training.

1.2 Limitations

As any research, this study also has certain limitations. First and foremost, the study is limited to the sample of AACSB member institutions. Although AACSB is one of the highly regarded accreditation institutions for business schools, as evident by 88% of the highest ranked management schools according to QS Top Universities Ranking being AACBS members (AACSB, 2024; QS World University Rankings, 2024), the geographical distribution of the members may raise concerns. The majority of the members in the sample are

from the United States of America (57%) and even though this may simply be a reflection of the global distribution of higher education institutions, it may also lead to the results of this study to be interpreted as representing the “American view” on entrepreneurial education.

Another limitation is the fact that not all institutions listed by AACSB has shared all necessary information. Considering the fact that there is a significant number of institutions with no data about their programs and courses whatsoever may lead to questions about the completeness of the study. Therefore, it is possible that the institutions that have not disclosed data about their entrepreneurship-oriented courses and activities might indeed have valuable contributions that may have been overlooked due to this shortfall.

2. Literature on Entrepreneurship Education

The term entrepreneurship, as coined by Richard Cantillon in 1755 and later expanded by François Quesnay in 1888 and Jean-Baptiste Say in 1845, is often attributed to Joseph Schumpeter who defined it as the act of “reforming or revolutionizing the pattern of production by exploiting an invention or, more generally, an untried technological possibility for producing a new commodity or producing an old one in a new way by opening up a new source of supply of materials or a new outlet for products by reorganizing an industry and so on” (Schumpeter, 1942; Śledzik, 2013). Following the definition of Schumpeter, entrepreneurial activities often include various methods of introducing ideas and transforming those ideas into marketable products and services for the purpose of earning profit.

Early theories on entrepreneurship are exceedingly diverse which include economic theories such as the theories of Schumpeter (1989), Kirzner (1997) and Marshall (1948) with a focus on the role of entrepreneurs in the market and their relationship to profits; psychological theories including but not limited to the studies of McClelland (1961), Hagen (1962) and Kunkel (1997) that emphasize the personality of individuals and their psychological motives; and sociological theories such as Weber (1904), Young (1971), Hoselitz (1963) and Cochran (1971) that underline the impact of the society on the emergence of entrepreneurship.

In addition to diverse disciplines studying entrepreneurship, another compelling question asked by scholars is whether entrepreneurship is an inherent quality people are born with or something that can be taught. Notwithstanding the view on whether people are born entrepreneurs or they have to be taught how to become one, the role of entrepreneurs in economies as engines for growth has long been accepted (Adekiya and Ibrahim, 2016). However, the view on this debate is epochal since it affects how educational institutions approach entrepreneurship education. Literature is divided on theories that argue certain personality traits are required to become entrepreneurs and thereby entrepreneurship education is useless and those that claim knowledge and skills to be acquired through education is what turns individuals into entrepreneurs.

2.1 Arguments for Entrepreneurship Education

Entrepreneurship education comprises all kinds of educational activities that aim to support the entrepreneurial journey of individuals. This education may be offered as a course, a concentration area (which is a subsection of a degree where the student focuses on entrepreneurship by choosing elective courses in that field), an undergraduate degree, or a graduate degree by a higher education institution or may be in the form of trainings delivered by other public and private institutions. The common goal of these activities is to provide individuals with theoretical and practical knowledge on how to establish their own businesses.

Early research on the relationship between entrepreneurship education and entrepreneurial intent demonstrates that exposure to entrepreneurship education during early ages encourages and supports the entrepreneurial intent (Gibb and Ritchie, 1982; Lee-Gosselin and Grise, 1990; Dyer, W, 1994). In other empirical research, Zhao et al (2005) uncovered a strong positive relationship between entrepreneurial education and entrepreneurial intent, which was later supported by Adekiya and Ibrahim (2016) in their research investigating the relationship between entrepreneurship training programs and the tendency of students to engage in entrepreneurial activities as well as Hutashut, Aditia and Thamrin (2024) who found a significant relationship between entrepreneurship training and entrepreneurial orientation and intent. Davidsson and Honig (2003) had a different approach which included not only the entrepreneurial intent but also the success of entrepreneurial activities which led to the conclusion that formal entrepreneurship education had a significant role in predicting entrepreneurial intent but no significant relationship was discovered between education and entrepreneurial success.

From a theoretical perspective, the foundation of entrepreneurship education is laid down by theoretical frameworks such as Theory of Planned Behaviour and Self-Efficacy Theory. Theory of planned behaviour

developed by Ajzen (1991) is relevant in the sense that entrepreneurship is a planned behaviour for which the intention would depend on personal attractiveness, social norms and feasibility. It is claimed that intentions models predict entrepreneurial behaviours better than individual (personality traits) and situational factors (external variables) (Krueger, Reilly and Carsrud, 2000). On the other hand, the Self-Efficacy Theory developed by Bandura (1978) emphasizes perceived behavioural control and observational learning in shaping intentions and behaviours which in this case is reflected in entrepreneurial intent and behaviour.

2.2 Arguments Against Entrepreneurship Education

Looking from the other end of the spectrum, not all scholars are in agreement that entrepreneurship education is the right path to follow when the goal is to increase the number of nascent entrepreneurs. Shane and Venkataraman (2000) and Kuratko (2005) are among the first scholars who challenged the idea of legitimizing entrepreneurship education as a solution that will lead to an increase in new business creation. The question of whether entrepreneurship can be taught, as coined by “teachability dilemma” by Haase and Lautenschlager (2011), is often answered by the scholars on this side of the debate by accentuating the importance of experience over classroom education.

One of the dominant arguments of those against entrepreneurship education is that it is a skillset that can only be obtained through real life experience and this experience supersedes classroom teachings. As claimed by Kent (1990), one of the early scholars studying the topic of entrepreneurship education: “Entrepreneurship education must be entrepreneurial”. This approach emphasizes the notion that entrepreneurship should be taught in a more “learning-by-doing” standpoint where students engage in more hands-on activities to acquire real life experience (Cope and Watt, 2000; Rasmussen and Sørheim, 2006).

Neck and Greene (2011) posit that there are three approaches to entrepreneurship education which are named as 1) Entrepreneur World; where the entrepreneur is the focal point of the education, 2) Process World; where the entrepreneurship process is taught from idea creation to business establishment, and 3) Cognition World; where the knowledge structures and thinking patterns of entrepreneurs is the main attraction. However the scholars believe that these traditional approaches no longer function in the new world and propose a new approach where entrepreneurship should be taught as a method (Neck and Greene, 2011). This approach requires the entrepreneurship education to be taught as an experience and action-based set of courses which involve simulations, real enterprise creation and design-based learning.

3. Methodological Framework

The approach to entrepreneurship education is varied among institutions based on their view on whether it should be a separate field or just a track of the business administration curriculum. To further understand this disparity, this study aims to provide an overview of how entrepreneurship education is delivered by leading higher education institutions around the world by conducting an analysis of secondary data. This section provides information on the research methodology including sampling methods, analyses and findings.

3.1 Research Methodology

The methodology employed in this study includes statistical analysis of secondary data complemented by case examples. First step of the analysis was to calculate the descriptive statistics of schools and programs by countries, institution type, size, educational level and the accreditation status of institutions. Second step of the analysis was to examine each school and the entrepreneurship-oriented programs they offered. And final step was to investigate the best practices of the schools in the sample. Case examples were selected based on subjective criteria such as their uniqueness and contribution to the entrepreneurship education. All the findings and analysis results were then compiled to provide an overlook of how entrepreneurship education is undertaken in different institutions around the world.

3.2 Sampling and Data Collection

The sample used in this study is selected from the higher education institutions which are members of the Association to Advance Collegiate Schools of Business (AACSB). AACSB is a highly regarded global nonprofit association established in 1916 which aims to help business schools worldwide achieve educational excellence (AACSB, 2024). The institution undertakes accreditation activities for colleges and universities focused on business education as well as creating a network among its members to elevate the standards of business education. The justification for selecting this sample is the vast amount of higher education institutions (1794 institutions as of July 2024) included in the database provided by AACSB and its coverage of highest-ranked

colleges and universities. This is believed to help this research achieve a view on best practices in the business education ecosystem.

Data used in this study is obtained from AACSB Analytics Hub which provides varied data on all the institutions included in the member directory. The term “institution” used here refers to all colleges, universities and other educational entities added to this list. The search engine provided by the Hub delivers 1794 institutions in total that are included in the member directory. When schools and programs related to entrepreneurship are searched, the results show that 461 out of 1794 institutions have some type of an entrepreneurship program which is calculated as 1908 programs in total.

3.3 Analysis and Findings

First step of the analysis was to lay down the descriptive statistics of the data obtained from AACSB Analytics Hub. This database is a paid service offered by AACSB to its member institutions which offers information about the universities and colleges and gives the opportunity to compare these institutions on various dimensions. Table 1 exhibits the distribution of institutions that offer entrepreneurship programs based on geographical location, institution type and size.

Table 1: AACSB Member Institutions with Entrepreneurship Programs

		N	%
Status	Institutions with Entrepreneurship Programs	461	26
	Institutions without Entrepreneurship Programs	1333	74
	Total	1794	100
		N	%
Countries	United States of America	261	57
	United Kingdom	39	8
	France	19	4
	Australia	17	4
	Canada	16	3
	Germany	10	2
	Taiwan	7	2
	Ireland	5	1
	Others (<1%)	87	19
	Total	461	100
		N	%
Institution Type	Public (owned by state)	319	69
	Private (owned by private entities)	142	31
	Total	461	100
		N	%
Size	Small (Up to 35 Full-time Faculty Members)	78	17
	Medium (36-75 Full-time Faculty Members)	139	30
	Large (More than 75 Full-time Faculty Members)	201	44
	Not Declared	43	9
	Total	461	100

Table 1 demonstrates that the distribution of entrepreneurship-oriented programs in AACSB member institutions leans towards not having programs purely dedicated to the field. An investigation into the curricula of AACSB member institutions shows that business schools tend to integrate entrepreneurship as a course or a track to their studies rather than dedicating a separate program or degree to this discipline.

Regarding the geographical distribution, a significant percentage of all institutions appear to be located in the United States of America which can be explained by the fact that a high percentage of all higher education

institutions worldwide are located in that region. This may also be caused by AACSB being perceived more important in American institutions since being originally founded as “American Assembly of Collegiate Schools of Business” despite its current positioning as a global nonprofit association (AACSB, 2024).

Although not directly related to the study, the distribution of the members by institution type and size is also provided in Table 2 which provides insight into the characteristics of the research sample. Data indicates that majority of the member institutions are public institutions, and the number of large institutions is higher than the others which means they have more than 75 full-time faculty members. These two factors might be correlated since public universities are often larger than private universities and such institutions have more government support and funding which may have led to having more entrepreneurship-oriented programs.

After a general overview of the data, the institutions that offer entrepreneurship were analysed based on the educational level of the programs, accreditation status of the institutions and the names of the programs offered.

3.3.1 Level of education

Another important dimension of how entrepreneurship programs are distributed is the level of education. Results demonstrate that entrepreneurship programs are widespread among both undergraduate and graduate level studies. Table 2 summarizes the results of the analysis.

Table 2: Distribution of Entrepreneurship Programs by Level of Education

Level of Education	N	%
Undergraduate	810	42.5
Masters-Specialist	451	23.6
Masters-Generalist (MBA)	282	14.8
Graduate Level Certificate	98	5.1
Doctoral	74	3.9
Masters-Generalist (non-MBA)	71	3.7
Undergraduate Certificate	65	3.4
Masters-Generalist (EMBA)	38	2.0
Masters-Generalist (MBA/Dual Degree)	11	0.6
Integrated Undergrad-Masters	7	0.4
Executive Education	1	0.1
Total	1908	100

As exhibited in Table 2, the percentages of undergraduate and graduate level entrepreneurship programs are very close despite the latter being slightly higher. In fact, the sum of all master’s and doctorate level programs (48.6%) exceeds the number of bachelor’s level programs (42.5%) which may be interpreted as entrepreneurship education being considered more appropriate for more mature and educated individuals. This supports the notion that older and more experienced entrepreneurs are often more successful in their endeavours compared to newly graduates (Azoulay *et al.*, 2018). This may also be because entrepreneurship education requires the individual to have a basic understanding and knowledge in business functions which may be provided by a bachelor’s degree.

Additional investigation into the other levels of entrepreneurship education reveals that some of the institutions prefer to have entrepreneurship as a concentration, minor program or track to their business administration programs. Certificate programs are also quite common but none of these lower-level programs are as widespread as entrepreneurship majors provided at undergraduate and graduate level. This illustrates that entrepreneurship education has been accepted as a legitimate university degree.

3.3.2 Accreditation status

AACSB accreditation is a profoundly prestigious achievement for any institution related to business education which means that they have gone through a long and intricate process of being scrutinized by AACSB. Table 3 shows the distribution of the institutions analysed, by their accreditation status.

Table 3: Distribution of Institutions by Accreditation Status

Accreditation Type	N	%
Business Accreditation	311	67
Business & Accounting Accreditation	112	24
Not Accredited	38	8
Total	461	100

As the table demonstrates, majority of the institutions that offer entrepreneurship programs are accredited by AACSB. This indicates that the decision to dedicate a program to entrepreneurship is a decision that is more commonly adopted by highly prestigious colleges and universities worldwide.

3.3.3 Terminology use in naming of programs

Findings of the research also demonstrate that a significant number of undergraduate and graduate level entrepreneurship-oriented programs offered by the institutions have one thing in common: The term “innovation”. Innovation, which can be broadly defined as the act of introducing something new, is a concept that goes hand-in-hand with entrepreneurship. Following the ideas of Schumpeter (1942), being innovative is often considered as a pre-requisite of being an entrepreneur.

This is evident in the names of the programs offered by the institutions in this study. After the choice of simply naming the programs as “Entrepreneurship” (which makes up 30% of all programs), the most common choice is to combine the term with innovation. A pattern can easily be drawn by looking at the programs named “Innovation and Entrepreneurship” or “Entrepreneurship and Innovation” on both undergraduate and graduate level, which is approximately 16% of all programs.

Looking at the names of the programs, there also exist some unique examples that attempt to combine entrepreneurship with innovation and creativity. BINUS Business School from Indonesia (BINUS, 2024) having a program called “Creativepreneurship” under its business school and the Chulalongkorn University from Thailand (Chulalongkorn University, 2024) offering a program called “Technology Management and Innopreneurship” is just two examples of these attempts to merge these concepts which are already being used interchangeably.

3.4 Case Examples from Selected Institutions

Following an overall analysis of all entrepreneurship programs offered by AACSB member institutions, this section provides case examples from selected institutions to provide an overview of the entrepreneurship programs.

3.4.1 Entrepreneurship centres

Entrepreneurship centres are entities established within universities which aim to encourage and support entrepreneurial activities at these institutions. These entities are sometimes referred to as “entrepreneurial institute” or “entrepreneurship academy” as in the case of California State University/DH (California State University, 2024) in the USA and ESMT in Germany (ESMT, 2024). Entrepreneurship centres often work as bridges between the entrepreneurship education and real-life practice. As previously mentioned to be one of the shortcomings of theoretical entrepreneurship education, entrepreneurship centres help the whole process become more integrated with the real business world.

For instance, Bettany Centre for Entrepreneurship established under Cranfield School of Management in England (Cranfield School of Management, 2024) describes its role as facilitation of entrepreneurial growth to unlock the entrepreneurial potential of students, faculty and staff by closely linking research, education and practice. They provide consulting, events for networking, entrepreneurship competitions and scholarships to aspiring entrepreneurs. A similar case can be observed in Ozyegin University in Türkiye (Ozyegin University, 2024) which offers incubation and acceleration centres for students named as “Startup Factory” and “OpenFab”. Babson College in the USA (Babson College, 2024) is another unique example which provides three distinct entrepreneurship centres for entrepreneurship (Arthur M. Blank Centre), women’s entrepreneurial leadership (Frank & Eileen Centre) and family entrepreneurship (Bertarelli Institute).

3.4.2 Entrepreneurship competitions and scholarships

Since competition and rivalry is at the heart of entrepreneurship, it is also one of the most common type of activities undertaken by institutions that focus on entrepreneurship. Frequently referred to as “pitching day”, “elevator pitch competition” or similar names, these competitions provide a platform for students to experience the real-life scenario where they go on stage in front of real investors and pitch their idea to receive investment. Such competitions usually offer rewards to the highest-ranking projects but more importantly they provide the aspiring entrepreneurs with the opportunity to meet the investors and create networks.

Examples include DePaul University’s “University Pitch Madness” in the USA, University of Bath’s “Dragons’ Den Pitching Competition” in England, Jönköping University’s “Entrepreneurship Challenge” in Sweden, LaTrobe University’s “PitchFest” in France, Chongqing University’s “Internet+ Innovation and Entrepreneurship Competition” in China and many more. Since pitching, which is delivering a very short speech to convince investors to make an investment in the project, is considered one of the key competencies of any entrepreneur, these competitions provide the opportunity to their students to experience this “rite of passage” in a controlled environment. One unique example in this field is the pitching tools provided by the University of Edinburgh which includes resources for students that teach how to create a successful pitch as well as a website (pitch.com) to help them achieve success in this crucial step. In addition to the competitions, certain institutions such as Indiana University in the USA prefer to provide entrepreneurship scholarships to students to support them in their entrepreneurial journeys (Indiana University, 2024).

3.4.3 Entrepreneurship certificates

Universities and colleges with a distinct focus on entrepreneurship also offer programs that provide their students with certificates to document the entrepreneurial activities they have undertaken. These documents are used by their graduates in their professional lives as a proof of their commitment to becoming entrepreneurs.

One of the examples of these certificate programs is the “Entrepreneurship Scorecard” offered by OSTIM Technical University in Türkiye (OSTIM Technical University, 2024). As a university that positions itself as an “entrepreneurial university”, this certificate contains all the entrepreneurial activities undertaken by their students throughout their studies. Each activity is scored by pre-determined criteria whether it is an entrepreneurship training or participating in entrepreneurship projects and each student is given the scorecard along with their diploma and transcript to demonstrate what they have done as potential entrepreneurs.

3.5 Overview of Entrepreneurial Education Around the World

In the scope of this research, 461 higher education institutions were investigated to determine how they deliver entrepreneurship education. Quantitative and qualitative analysis results were combined to create an overview of entrepreneurship education around the world. Figure 1 demonstrates the overview.

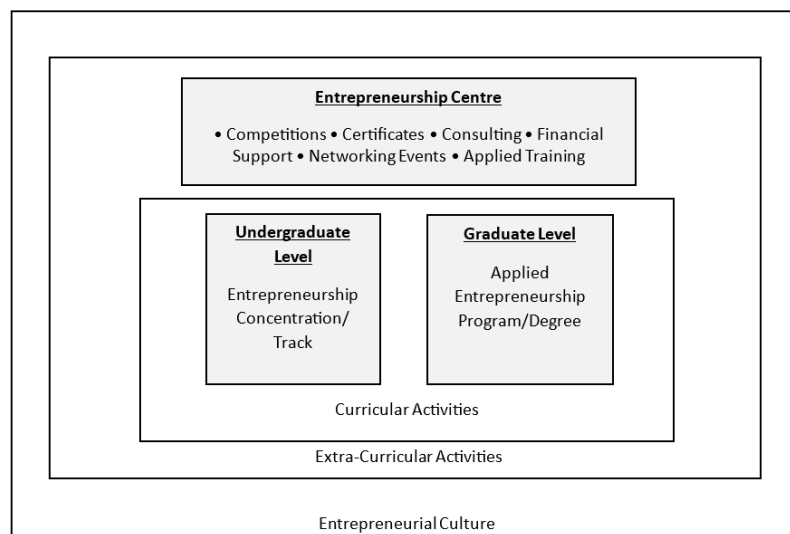


Figure 1: Overview of Entrepreneurship Education Around the World

The overview of entrepreneurship education around the world provides three dimensions: Curricular Activities, Extra-Curricular Activities and the Entrepreneurial Culture. Curricular activities encompass all undergraduate and graduate level education whereas extra-curricular activities are organized under an entrepreneurship centre that will focus on supporting entrepreneurial activities of student and staff and all these activities are encircled by an entrepreneurial culture that lays the foundation of the overview.

As depicted in the overview, descriptive statistics and best practices of the business schools in the AACSB member directory suggest that entrepreneurship should not be a separate program or a degree at undergraduate level. Therefore, having entrepreneurship as a concentration area or a track to be added to the business degree would provide the undergraduate students with the necessary entrepreneurial mindset without focusing the whole degree on this topic. A separate program or a degree dedicated to entrepreneurship may be considered at graduate level provided that it is an applied program that requires students to participate in real-life entrepreneurial activities such as establishing a company, seeking investment or developing and implementing a business plan.

Considering the importance of real-life experience, perhaps the most crucial component of the overview is the entrepreneurship centre. A separate entity to be established under the university or college should be responsible for supporting and encouraging entrepreneurial activities by organizing competitions and networking events, providing certificates and trainings and offering consultancy services and financial support. These extra-curricular activities will help incubate and accelerate business ideas for which the foundation is laid down by undergraduate and graduate level programs.

Finally, the whole structure should be supported by an entrepreneurial culture to be created and sustained at the institution. Without such a culture that underlines the importance of having an entrepreneurial mindset, none of the other activities would bring any success.

4. Conclusion and Discussion

Entrepreneurship education has long been debated by scholars who passionately believe in its effectiveness as well as those who think that it is nonsense. However, the increase in programs focusing on entrepreneurship education in recent years demonstrate that higher education institutions recognize the importance of entrepreneurship and are willing to take necessary measures to integrate it into their programs.

The aim of this research was to investigate how universities and colleges around the world undertake the task of teaching entrepreneurship by conducting research on members of Association to Advance Collegiate Schools of Business (AACSB), which is one of the most prestigious associations that conducts accreditation processes for business schools. Data obtained from AACSB Analytics Hub was used to achieve an overview of entrepreneurship education programs offered by these institutions as well as investigating some of their best practices in the field of entrepreneurship. Results of the quantitative and qualitative analyses were used to provide an overview of entrepreneurship education around the world. This overview is proposed as a suggestion for higher education institutions to advance their entrepreneurial endeavours and adopt a holistic view on entrepreneurship education.

4.1 Suggestions for Further Research

This research was conducted to develop a provide an overview of entrepreneurship education around the world based on the preferences and best practices of some of the most prestigious business schools around the world. However, considering the fact that majority of AACSB member institutions are from the United States of America may raise certain concerns that could be relieved by conducting a similar research based on other directories or rankings that have a more balanced geographical distribution. Another suggestion for further research may be to have a deeper investigation into the dimensions identified in the overview such as the activities of entrepreneurship centres or how to create and maintain an entrepreneurial culture at higher education institutions.

References

- AACSB (2024) *AACSB About Us*. Available at: <https://www.aacsb.edu/about-us>.
- Adekiya, A. A. and Ibrahim, F. (2016) 'Entrepreneurship intention among students. The antecedent role of culture and entrepreneurship training and development', *International Journal of Management Education*, 14(2), pp. 116–132. doi: 10.1016/j.ijme.2016.03.001.
- Ajzen, I. (1991) 'The theory of planned behavior', *Organizational Behavior and Human Decision Processes*, 50(2).

- Azoulay, P. et al. (2018) 'Age and High-Growth Entrepreneurship', *National Bureau of Economics Research Working Paper Series*, 4. doi: 10.3928/1081-597x-19980401-22.
- Babson College (2024) *Babson College Entrepreneurship Centres*. Available at: <https://www.babson.edu/blank-school-for-entrepreneurial-leadership/centers-and-institutes/>.
- Bandura, A. (1977) 'Self-efficacy: Toward a unifying theory of behavioral change', *Advances in Behaviour Research and Therapy*, 1(4), pp. 139–161. doi: 10.1016/0146-6402(78)90002-4.
- BINUS (2024) *BINUS University*. Available at: <https://curriculum.binus.ac.id/program/creativepreneurship-bdg/>.
- California State University (2024) *California State University Entrepreneurial Institute*. Available at: <https://www.csudh.edu/cbapp/institutes/the-entrepreneurial-institute>.
- Chulalongkorn University (2024) *Chulalongkorn University*. Available at: <https://tip.grad.chula.ac.th/>.
- Cochran, T. (1971) 'The Entrepreneur in Economic Change', in Kilby, P. (ed.) *Entrepreneurship and Economic Development*. The Free Press.
- Cope and Watt, G. (2000) 'Learning by doing: An Exploration of Experience, Critical Incidents and Reflection in Entrepreneurial Learning', *International Journal of Entrepreneurial Behaviour & Research*, 6(3). Available at: <http://www.ncbi.nlm.nih.gov/pubmed/21576540>.
- Cranfield School of Management (2024) *Bettany Centre for Entrepreneurship*. Available at: <https://www.cranfield.ac.uk/som/research-centres/bettany-centre-for-entrepreneurship>.
- Davidsson, P. and Honig, B. (2003) 'The role of social and human capital among nascent entrepreneurs', *Journal of Business Venturing*, 18(3), pp. 301–331. doi: 10.1016/S0883-9026(02)00097-6.
- Dyer, W, G. (1994) 'Towards a Theory of Entrepreneurial Careers', *Entrepreneurship Theory and Practice*, 19.
- ESMT (2024) *LISEAD - Life Science Entrepreneurship Academy*. Available at: <https://esmt.berlin/execed/executive-education/open-programs/lisead-life-science-entrepreneurship-academy>.
- GEM (2024) 'GEM 2023 / 2024 Global Report 25 Years and Growing', pp. 1–224.
- Gibb, A. and Ritchie, J. (1982) 'Understanding the Process of Starting Small Businesses', *European Small Business Journal*, 1(1).
- Haase, H. and Lautenschläger, A. (2011) 'The "Teachability Dilemma" of entrepreneurship', *International Entrepreneurship and Management Journal*, 7(2), pp. 145–162. doi: 10.1007/s11365-010-0150-3.
- Hagen, E. E. (1962) *On the Theory of Social Change. How Economic Growth Begins*. Dorsey Press.
- Hoselitz, B. F. (1963) 'Entrepreneurship and Traditional Elites', *Explorations in Economics History*, 1(1).
- Hutasuhut, S., Aditia, R. and Thamrin (2024) 'The mediating role of entrepreneurial orientation: the impact of entrepreneurship education and patriarchal culture on entrepreneurial intention among Indonesian university students', *Cogent Business and Management*, 11(1), p. doi: 10.1080/23311975.2024.2369156.
- Indiana University (2024) *Entrepreneurial Scholarships*. Available at: <https://kelley.iu.edu/faculty-research/centers-institutes/entrepreneurship-innovation/students/scholarships.html>.
- Kent, C. A. (1990) 'Introduction: Educating the Heffalump', in *Entrepreneurship Education: Current Developments, Future Directions*. New York: Quorum Books.
- Kirzner, I. M. (1997) *How Markets Work Disequilibrium, Entrepreneurship and Discovery*. London: The Institute of Economic Affairs. doi: 10.4324/9781315761732-12.
- Krueger, N. F., Reilly, M. D. and Carsrud, A. L. (2000) 'Competing models of entrepreneurial intentions', *Journal of Business Venturing*, 15(5), pp. 411–432. doi: 10.1016/S0883-9026(98)00033-0.
- Kunkel, J. H. (1997) *Theory of Entrepreneurship Development*. New York: McGraw-Hill.
- Kuratko, D. F. (2005) 'The Emergence of Entrepreneurship Education: Development, Trends, and Challenges', *Entrepreneurship Theory and Practice*, 29(5).
- Lee-Gosselin, H. and Grise, J. (1990) 'Are Women Owner-Managers Challenging Our Definitions of Entrepreneurship? An In-Depth Survey', *Journal of Business Ethics*, 9(4–5).
- Marshall, A. (1948) *Principles of Economics: An Introductory Volume*. London: Macmillan.
- McClelland, D. C. (1961) *The Achieving Society*. New York: Macmillan.
- Neck, H. M. and Greene, P. G. (2011) 'Entrepreneurship Education: Known Worlds and New Frontiers', *Journal of Small Business Management*, 49(1), pp. 55–70. doi: 10.1111/j.1540-627X.2010.00314.x.
- OSTIM Technical University (2024) *OSTIM Technical University Entrepreneurship Scorecard*. Available at: <https://www.ostimtechnik.edu.tr/entrepreneurship-and-leadership-center-3751/2622>.
- Ozyegin University (2024) *Ozyegin University Acceleration and Incubation*. Available at: <https://www.ozyegin.edu.tr/en/center-entrepreneurship/ozu-campus-program/ozu-acceleration-and-incubation>.
- QS World University Rankings (2024) *QS World University Rankings by Subject 2024: Social Sciences & Management*. Available at: <https://www.topuniversities.com/university-subject-rankings/social-sciences-management>.
- Rasmussen, E. A. and Sørheim, R. (2006) 'Action-based entrepreneurship education', *Technovation*, 26(2), pp. 185–194. doi: 10.1016/j.technovation.2005.06.012.
- Schumpeter, J. A. (1942) *Capitalism, Socialism and Democracy*. Routledge.
- Schumpeter, J. A. (1989) *Essays on Entrepreneurs, Innovations, Business Cycles and the Evolution of Capitalism*. Routledge.
- Shane, S. and Venkataraman, S. (2000) 'The Promise of Entrepreneurship as a Field of Research', *Academy of Management Review*, 25(1).
- Śledzik, K. (2013) 'Schumpeter's View on Innovation and Entrepreneurship', *SSRN Electronic Journal*, (April 2013). doi: 10.2139/ssrn.2257783.

- Weber, M. (1904) *The Protestant Ethic and the Spirit of Capitalism*. New York: Scribner's Press.
- Young, F. W. (1971) 'A Macrosociological Interpretation of Entrepreneurship', in Kilby, P. (ed.) *Entrepreneurship and Economic Development*. The Free Press.
- Zhao, H., Seibert, S. E. and Hills, G. E. (2005) 'The Mediating Role of Self-Efficacy in the Development of Entrepreneurial Intentions', *Journal of Applied Psychology*, 90(6).