

Analysis of Student Constraints in Entrepreneurship through the Analytical Hierarchy Process (AHP) Approach

Sutarmin¹

¹Management, Universitas Peradaban, Indonesia

¹Author's correspondence: sutarmin74@gmail.com

Abstract. To increase the number of entrepreneurs in Indonesia, Peradaban University, Brebes, Middle Java, Indonesia began to change the patterns of education, so the students not only have high scores in academics but they also have entrepreneurial skills. Despite this subject, entry of students into the field of entrepreneurship has always been faced with many barriers and most of them have not been able to analyze the barriers. This study uses a mixed method of quantitative and qualitative methods. Analytical Hierarchy Process (AHP) was used to analyze the dominant factors of the barriers. While the interview method was used as a qualitative method to find out the solution to the barriers. Respondents in this study were students at Peradaban University that have been entrepreneurs for at least one month. Data were obtained by spreading questionnaires to 32 students and interviewing four students. The result of the analysis shows that the dominant factors are environment of campus barriers (25.79%) followed by financial barriers (24.84%), character barriers (18.48%), educational barriers (17.03%) and family barriers (13.85%). And some solutions provided are learning time management, making the priority scale, approaching the lecturer, looking for investors, and inviting other friends to run the business together.

Keywords: AHP; Analytical Hierarchy Process; Entrepreneurial constraints; Entrepreneurship; Entrepreneur.

Abstrak. Untuk meningkatkan jumlah wirausahawan di Indonesia, Universitas Peradaban, Brebes, Jawa Tengah, Indonesia mulai mengubah pola pendidikannya, sehingga mahasiswa tidak hanya memiliki nilai akademis yang tinggi, tetapi mereka juga memiliki ketrampilan berwirausaha. Namun, masuknya mahasiswa dalam bidang kewirausahaan selalu dihadapkan pada banyak kendala. Salah satunya adalah ketidakmampuan mereka menganalisis kendala tersebut. Penelitian ini menggunakan metode campuran antara pendekatan kuantitatif dan kualitatif. Analytical Hierarchy Process (AHP) digunakan untuk menganalisis faktor dominan kendala yang muncul, sedangkan metode wawancara digunakan untuk memperoleh data kualitatif guna mengetahui solusi dari kendala-kendala tersebut. Partisipan atau responden dalam penelitian ini adalah mahasiswa Universitas Peradaban di Kabupaten Brebes yang sudah berwirausaha minimal satu bulan sebelumnya. Data diperoleh dengan menye-

barkan angket kepada 32 siswa dan mewawancarai empat orang siswa. Hasil analisis menunjukkan bahwa faktor yang dominan adalah kendala lingkungan kampus (25,79%) diikuti oleh kendala finansial (24,84%), kendala karakter (18,48%), kendala pendidikan (17,03%), dan kendala keluarga (13,85%). Hasil penelitian ini juga menawarkan beberapa solusi, yaitu belajar manajemen waktu, membuat skala prioritas, pendekatan ke dosen, mencari investor, dan mengajak teman lain untuk menjalankan bisnis bersama.

Kata kunci: AHP; Analytical Hierarchy Process; Kendala berwirausaha, Kewirausahaan; Wirausaha.

Article Info:

Received: September 11, 2022

Accepted: December 23, 2022

Available online: January 30, 2023

DOI: <http://dx.doi.org/10.30588/jmp.v12i2.1198>

BACKGROUND

Globalization is something that is still a major issue in the development and progress of the country (Ravallion, 2018). One of the issues regarding globalization that currently continues to be discussed and discussed, especially by member countries of the Association of South East Asia Nation (ASEAN) is the ASEAN Economic Community (AEC), which was just implemented in December 2015. In the 2015 ASEAN free market era, all countries ASEAN will compete for existing job opportunities. Countries with high Human Resources (HR) competencies will have a superior opportunity to gain economic benefits in the MEA (Zulaikha, et al., 2021).

Indonesia as one of the ASEAN member countries must have its own readiness in facing the implementation of the MEA (Shobikah, 2017). AbduRofiq (2015) states that the current national economy is largely driven by the contribution of the creative industry by involving many young people who have creativity and innovation oriented to Micro, Small and Medium Enterprises (MSMEs). So to face the MEA, Indonesia's young generation cannot only rely on academic ability, but must be able to act creatively and innovatively to create jobs by becoming entrepreneurs (Pratomo & Wardani, 2021).

However, the entrepreneurial spirit in Indonesia is still lagging behind when compared to several ASEAN countries. Currently, the number of entrepreneurs in Indonesia is still considered small compared to the total population. Ideally, at least 2% of the 247 million people in Indonesia are entrepreneurs (Abdurochim et al., 2019).. If this minimum expectation can be realized, there will be around 5 million entrepreneurs in Indonesia. Data as of January 2012 shows that the number of entrepreneurs in Indonesia is only 1.56% of the total population. For comparison, the composition of entrepreneurs compared to the population in Singapore is 7.2%, Malaysia is 4%, and Thailand is 4.1% of the total population (Abdurochim, et al., 2019)..

The weak entrepreneurial spirit in Indonesia is due to the mindset of the people who always assume that graduating from school or college must have a goal to become a worker and receive a salary (Keat et al., 2011). This needs to be changed and one of them is through education patterns. Universities have begun to implement education in

which graduates are not only job seekers by producing young entrepreneurs with good entrepreneurial skills.

To be able to produce graduates who are ready for entrepreneurship, one of the ways that universities take is to include Entrepreneurship courses as important subjects and even compulsory subjects in all majors. One of the universities in Indonesia that has implemented it is the Peradaban University. The university, which is located in Paguyangan District, Brebes Regency, has made Entrepreneurship a compulsory subject for all majors it has opened.

The entrepreneurial spirit of the Peradaban University students has now increased with the emergence of entrepreneurs from among students. Like Rizki Alfi Arimbi, a student of the Accounting Department in the 2013 batch who has a tofu production business at home. Although the level of production is still relatively small because it is still done at home, Arimbi has been able to market its tofu production to several markets and restaurants in Bumiayu District.

Unfortunately, the entrepreneurial spirit of students at the Peradaban University is not yet stable and they still often face various obstacles that cause their business to vacuum or even stop completely. The obstacles faced by students in entrepreneurship are of course slightly different from the obstacles faced by entrepreneurs in general. Carrying out two roles with two different responsibilities at the same time is certainly not an easy thing. Especially if there is a demand to be the best in both roles.

In addition to the problem of roles and responsibilities, there are several other factors that can certainly be an obstacle for students in entrepreneurship. According to Zimmerer in Suryana (2014), there are several factors that hinder entrepreneurship, i.e: 1) incompetent in managerial terms, 2) lack of experience, 3) lack of financial control, 4) failure in planning, 5) inadequate location, 6) lack of equipment supervision, 7) a less serious attitude in doing business, and 8) inability to make the transition/entrepreneurial transition.

At the Peradaban University, there are several students who have succeeded in analyzing the factors of these obstacles so that they are able to overcome them and then succeed in becoming entrepreneurs at a young age. The ability to analyze and overcome these obstacles needs to be transmitted to other students so they don't give up and keep trying to become a successful young entrepreneur (Isenberg, 2010)

If students have a high entrepreneurial spirit, they will continue to learn about the business world and be able to overcome all obstacles to become a successful entrepreneur. The more students who are enthusiastic about entrepreneurship, the number of entrepreneurs in Indonesia will be higher and that means Indonesia will be stronger in the creative industry economy and ready to compete with ASEAN countries in the MEA and it is also possible that Indonesia will be able to excel in the world free market (Apriana, Kristiawan, & Wardiah, 2019).

Based on the background of the research problem presented earlier, the research questions were formulated (1) What are the factors that hinder students in entrepreneurship? (2) What are the most dominant inhibiting factors for students in entrepreneurship? (3) How do Peradaban University students overcome the obstacles they face.

THEORETICAL REVIEW

Definition of Entrepreneurship

Hendro (2011) argues that entrepreneurship is an ability to manage something that exists within a person to be utilized and improved to be more optimal so that it can improve his standard of living in the future. Meanwhile, Suryana (2014) stated that the secret of entrepreneurship lies in creativity and innovation. Therefore, entrepreneurship can be defined as a creative and innovative ability to create something new and different which is used as a basis, resource, driving force, goals, tactics, tips, processes and struggles to face life's challenges (Davenport, Leibold, & Voelpel, 2007).

The essence of entrepreneurship according to Hadiyati (2011) is taking risks, running yourself, taking advantage of opportunities, creating new, innovative approaches, and being independent. Utomo (2012) concludes that entrepreneurship is the process of creating something different in value by using the necessary effort and time, assuming the accompanying financial, psychological and social risks, and receiving monetary rewards and personal satisfaction.

Entrepreneurial Characteristics

Suryana (2014) argues that there are several general characteristics of an entrepreneur, i.e.: Have a high achievement motive, have a forward perspective, Have high creativity, Have a high innovative nature, Have a commitment to work, Have responsibility, Having independence or not depending on others, Have the courage to face risks, Always looking for opportunities, Leadership spirit, Have managerial ability, Have personal abilities (Okpara, 2007).

Entrepreneurial Barriers

Ghafouri in Ashkezari and Ashkezari (2013) states that the inhibiting factors for women entrepreneurs are barriers from family, educational barriers, training barriers, female character barriers, financial barriers, cultural and social barriers, and obstacles in terms of applicable law. Meanwhile, Setyaningsih (2014) who conducted research on students who were entrepreneurship concluded that the inhibiting factors for students in entrepreneurship are internal factors (opportunity, network, personal, learning, familism), and external factors (faculty or campus), and Government.

Understanding Student

According to the Law of the Republic of Indonesia No. 20 of 2003 concerning National Education System Chapter VI, fourth part of article 19, that "student" is actually just an academic term for students who have reached a certain level of education during their learning period. Meanwhile, according to the Big Indonesian Dictionary (KBBI), a student is someone who studies at a university, in the educational structure in Indonesia students hold the highest educational status among others. According to Setyaningsih (2014), student goals are to: Reach and reach a mature scientific level, Mastering something and have broad scientific insight,

So that students are able to behave and act scientifically in all matters relating to their knowledge to be devoted to their community and mankind. Setyaningsih continued that the word student connects the dimensions of divinity (Maha) and creation (students). It can be concluded that students are people who are studying in higher

education and are expected to have constructive traits and attitudes for society and their knowledge.

Students and Entrepreneurs

When Indonesia and several countries in the world have to be faced with a global crisis which has resulted in many companies being forced to downsize their organizations by means of unilateral termination of employment, the impact will be an increase in the number of educated unemployed, be it undergraduate, doctoral, high school graduates and the equivalent. This situation will be exacerbated if the college graduates every year only aim to find work. Hendro (2011) further states that the only way or the best way is to rely on the education sector to change the mindset of graduates from being oriented to looking for work to creating their own jobs by becoming independent entrepreneurs.

RESEARCH METHODS

This type of research is a combined research or combination research (mixed methods). According to Sugiyono (2014:19), this combination research is a research that combines quantitative and qualitative research methods to be used together in one research activity, in order to obtain more comprehensive, valid, reliable, and objective data. In this study, researchers used a concurrent embedded design (unbalanced mixture). This research design combines quantitative and qualitative research methods by mixing the two methods together but with unbalanced proportions (Sugiyono, 2014). Researchers used quantitative research methods as primary methods and qualitative research methods as secondary methods to strengthen the results of previous quantitative research.

This research was conducted in July-August 2019 at the Peradaban University. The number of samples used in this study were 32 students of the Peradaban University who had been running a business for more than one month. The data used in this study are primary data and secondary data. Primary data was obtained by distributing questionnaires and interviews to respondents. While secondary data were obtained from books, previous research journals and articles on certain websites that were in accordance with the research material and were used as a writing reference.

Data analysis used quantitative analysis, namely the Analytical Hierarchy Process (AHP) approach. According to Tominanto (2012), AHP is a method of solving complex/complicated problems in situations that are not structured into component parts. The parts or variables studied are arranged into a form of hierarchical arrangement, then each of these variables is assigned a numerical value for subjective research on the relative importance of each variable and synthesizes an assessment for which variable has the highest priority which will affect the resolution of the situation. the.

According to Saaty (2008), the Analytical Hierarchy Process has steps that are summarized into a working stage as follows.

1. Define the problem and determine the solution.
2. Create a hierarchical structure that begins with the main objective, followed by sub-goals, criteria and possible alternatives at the last level of criteria.

3. Create a pairwise comparison matrix for the relative contribution or influence of each element on the element at the level above it.
4. Perform pairwise comparisons so that all considerations of the elements being compared are obtained.
5. Calculate the eigenvalue and test its consistency. If it is not consistent, the data collection is repeated again.

Qualitative analysis in this study is an analysis of the results of interviews conducted by researchers on some respondents who are more potential to support the weighting results of the Analytical Hierarchy Process and answer research formulations regarding ways students overcome obstacles in entrepreneurship. Interviews were conducted in a semi-structured manner, where the researcher made an outline and boundaries of the interview but was more open to respondents' answers. The results of the interviews will be displayed in the form of quotations either directly or indirectly from the respondents.

RESULTS AND DISCUSSION

Respondents Overview

The general description of respondents in this study is divided into 3 groupings, namely based on gender, business age and initial capital. Based on the data collected by the researchers, a description of the gender of the respondents can be seen in Table 1. The results show that at the Peradaban University there is an almost equal ratio between male and female students who are entrepreneurship with the percentage of males as much as 43.75% and females as much as 56.25%.

Table 1. General Description of Respondents by Gender

Gender	Frequency	Percentage
Male	14	43.75%
Female	18	56.25%
Total	32	100.00%

Source: Primary data processed (2019).

Based on the data in Table 2, some of the students of the Peradaban University already run a business before they go to college. However, for the most part, the business age of the University of Civilization students ranged from 0-20 months or less than two years, as many as 18 respondents or 56.25% of the total respondents.

Table 2. General Description Respondents Based on Business Age

Business	Frequency	Percentage
0-20 months	18	56.25%
21-40 months	8	25.00%
41-60 months	3	9.38%
61-80 months	2	6.25%
81-100 months	0	0.00%
101-120 months	1	3.13%
Total	32	100.00%

Source: Primary data processed (2019).

Table 3 shows that Peradaban University students who run businesses starting with capital under IDR 2,500,000 with a frequency of 21 students out of a total of 32 students (IDR=Indonesian Rupiah).

Table 3. General Description Respondents of Respondents Based on Initial Capital

Initial Capital (IDR)	Frequency	Percentage
< 2,500,000	21	65.63%
2,500,001-5,000,000	4	12.50%
5,000,001-7,500,000	0	0.00%
7,500,001-10,000,000	7	21.88%
Total	32	100,00%

Source: Primary data processed (2019).

Analytical Hierarchy Process

Hierarchical Structure

The problem hierarchy is arranged to assist the decision-making process by taking into account all the decision criteria involved in the system. For more details, the hierarchical structure of this research can be seen in the image of Figure 1.

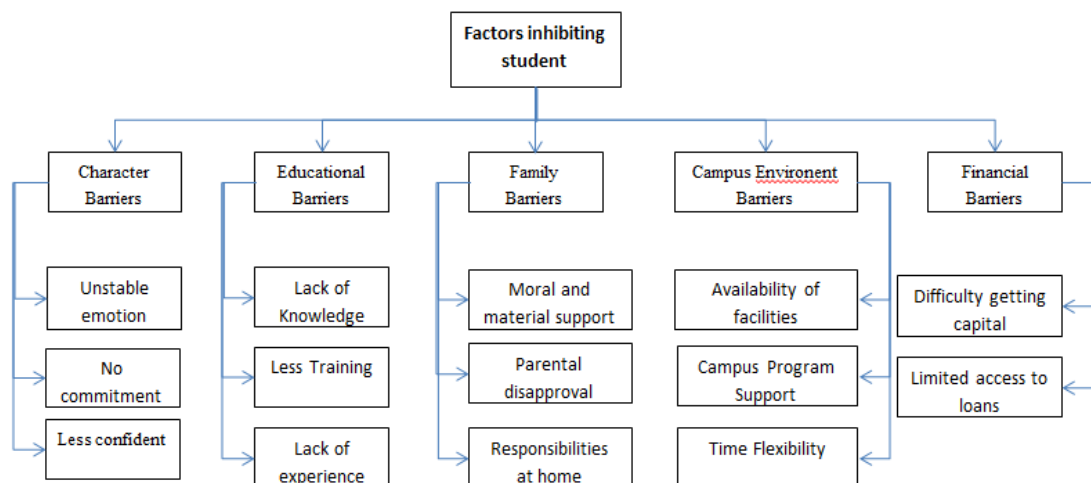


Figure 1. Research Hierarchical Structure

Data Collection

Because this study uses the analytical hierarchy process method, the questionnaire used aims to compare each of the inhibiting factors. The scale used in the questionnaire is Saaty's scale 1-9 with the following explanation.

Table 4. Saaty's Scale

Intensity of Importance	Definition	Explanation
1	Same hinder	A dan B same hinder.
3	A little more inhibiting than	A, a little more inhibiting than B.
5	Slightly more inhibited	A slightly more inhibited than B.
7	Much more inhibiting	A much more inhibiting than B.
9	Absolute more inhibiting	A absolute more inhibiting than B.
2,4,6,8	Value between the numbers above	Hesitating in determining the scale, for example 6 between 5 and 7.

Source: Saaty and Vargas (2001) adjusted.

By using this comparison scale, the matrix based on the respondent's answers is a reciprocal or inverse matrix. For example, factor A is more inhibiting than factor B with a weight of 7, then factor B has a weight of 1/7 more inhibiting than factor A.

Pair Comparison

Because in this study the researcher made an analysis based on more than one respondent's answers, it is necessary to calculate the geometric mean as the average of the respondents' answers. The geometric mean or the geometric mean of the first and second levels are:

Table 5. First Level Geometric Average

Barriers	Character	Educational	Family	Environment of campus	Financial
Character	1	1.306	1.570	0.560	0.662
Educational	0.766	1	1.488	0.704	0.639
Family	0.637	0.672	1	0.672	0.618
Environment of campus	1.784	1.421	1.487	1	1.087
Financial	1.510	1.566	1.618	0.921	1
Total	5.697	5.966	7.163	3.858	4.004

Source: Primary data processed (2019).

Table 6. Average Geometric Character Barriers

Barriers	Unstable emotions	Unable to keep commitments	Lack of confidence
Unstable emotions	1	1.303	1.319
Unable to keep commitments	0.768	1	1.374
Lack of confidence	0.758	0.728	1
Total	2.526	3.030	3.694

Source: Primary data processed (2019).

Table 7. Average Geometric Educational Barriers

Barriers	Lack of Knowledge	Lack of Training	Inexperienced
Lack of Knowledge	1	0.588	0.727
Lack of Training	1.701	1	1.112
Inexperienced	1.376	0.899	1
Total	4.077	2.487	2.39

Source: Primary data processed (2019).

Table 8. Geometric Average of Family Barriers

Barriers	Moral and Material Support	Parental Disapproval	Responsibilities at Home
Moral and Material Support	1	2.067	0.838
Parental Disapproval	0.484	1	0.496
Responsibilities at Home	1.193	2.014	1
Total	2.677	5.081	2.335

Source: Primary data processed (2019).

Table 9. Average Geometric Environment of Campus Barriers

Barriers	Facility Availability	Campus Program Support	Lecture Time Flexibility
Facility Availability	1	1.584	0.557
Campus Program Support	0.631	1	0.569
Lecture Time Flexibility	1.796	1.758	1
Total	3.427	4.342	2.126

Source: Primary data processed (2019).

Table 10. Average Geometric Financial Barriers

Barriers	Difficulty Getting Capital	Limited Access to Loans
Difficulty Getting Capital	1	1.564
Limited Access to Loans	0.639	1
Total	1.639	2.564

Source: Primary data processed (2019).

Element Weighting

To find out the most dominant factor that hinders students in entrepreneurship is to look at the weight of the largest calculation. The results of the weighting of each element from the first and second levels are shown in Table 11. Based on the results of the weighting above, the largest weight is owned by the campus environmental factors (environment of campus barriers), which is 0.2579 or 25.79%. This shows that the responsibility of students on campus to undergo lectures hampers the running of their business coupled with limited facilities and campus programs that still do not support students in entrepreneurship.

Meanwhile, at the second level, the sub-factor that has the greatest weight is the difficulty in obtaining capital from financial factors (financial barriers) with a weight of 0.1515 or 15.15% of the total weight of the sub-factors. This shows that students at the Peradaban University still find it difficult to get capital to develop the business they run.

The biggest difference in weight at the first and second levels is due to the environment of campus barriers with a weight of 0.2579 or 25.79% having 3 sub-factors with quite large weights. Meanwhile, financial barriers which have a weight of 0.2484 or 24.84% only have 2 sub factors.

Table 11. Element Weighting

First Level		Final Weight	Second Level	
Barrier Factors	Weight (%)		Sub-Factor Barriers	Weight (%)
Character	0.3943	0.1848	Unstable emotions	0.0729
	0.3353		Unable to keep commitments	0.0620
	0.2703		Lack of confidence	0.0500
Educational	0.2459	0.1703	Lack of knowledge	0.0419
	0.4037		Lack of training	0.0688
	0.3505		Inexperienced	0.0597
Family	0.3798	0.1385	Moral and material support	0.0526
	0.1967		Parental disapproval	0.0273
	0.4234		Responsibilities at home	0.0587
Environment of campus	0.3062	0.2579	Facility availability	0.0790
	0.2274		Campus program support	0.0586
	0.4664		Lecture time flexibility	0.1203
Financial	0.6100	0.2484	Difficulty getting capital	0.1515
	0.3900		Limited access to loans	0.0969
Total	5.0000	1.0000	Total	1.0000

Source: Primary data processed (2019).

Consistency Test

This test is conducted to determine whether the previously calculated weighting is consistent or not. To determine the level of consistency can be seen in the consistency ratio (CR). The consistency ratio is said to be consistent if ≤ 0.1 . The results of the calculation of the consistency test in this study are as follows:

$$\begin{aligned} \lambda_{\max} &= 5.0488 \\ CI &= (\lambda_{\max} - n) / (n - 1) = (5.0488 - 5) / (5 - 1) = 0.0122 \\ CR &= CI / RI = 0.0122 / 1.11 = 0.011001 \end{aligned}$$

The value of the Random Index (RI) = 1.11 can be seen in the Table 12 with n=5.

Table 12. Random Index Value

N	1	2	3	4	5	6	7	8	9	10
RI	0	0	.52	.89	1.11	1.25	1.35	1.40	1.45	1.49

Source: Saaty and Vargas (2001).

The results of the calculation of the CR or Consistency Ratio in this study were 0.011. Based on the provisions previously described and $0.011 < 0.1$, the results are consistent.

Qualitative Analysis

This study uses a combined research method where quantitative methods are used to determine the most dominant factors inhibiting students in entrepreneurship, then qualitative methods carried out by interview techniques are used with the aim of strengthening the weighting results using the analytical hierarchy process and to find out how students are entrepreneurship can overcome the obstacles it faces.

If the obstacles faced are different, the solutions offered will also be different. The obstacles faced by each student also have different priorities and weights. For a new business, the problem that is usually faced is finance, namely the minimal amount of capital. As stated in the general description of the respondents, most of the respondents are students who started their business for less than two years with a capital of not more than IDR 2,500,000. To overcome the problem of capital, most of the students choose online businesses that do not require too large an initial capital.

According to Arie, who is running a catfish rearing business and has financial problems in his business, one way or solution to overcome the obstacles is to save pocket money and look for investors who are willing to invest and run this catfish rearing business together. The same thing is done by student who seeks and gathers friends who have dreams of becoming entrepreneurs in the culinary field to jointly continue their business.

As for businesses running in the fields of production and agriculture, the biggest obstacle felt was the division between college time and time to manage their business. According to Rizki Alfi Arimbi and Fatchulloh, they can't just leave their businesses because they clash with their class schedules. This is because the results of this effort can make them able to continue their studies and support their personal lives.

Arimbi, who faced obstacles in terms of studying time, had to learn about time management, choose a priority scale and was even willing to reduce his break time to go directly to supervise the production process. This is done so that his business activities do not interfere with his study time. In order to overcome the inflexibility of class time constraints for entrepreneurs, Fatchulloh believes that students can directly contact the lecturer concerned and explain the situation and then submit an application for permission. If the lecturer has given permission, usually additional assignments will be given in lieu of attendance.

CONCLUSIONS AND RECOMMENDATIONS

From the results of this study, it can be concluded that the inhibiting factors for students in entrepreneurship are character barriers, educational barriers, family barriers, environment of campus barriers and financial barriers. The result of element weighting shows that the dominant barrier is the campus environment (environment of campus barriers) with a weight of 25.79% and the dominant inhibiting sub-factor is the difficulty of obtaining capital with a weight of 15.15%.

The ways in which Peradaban University students cope from the campus environment include learning time management, making priority scales and approaching lecturers to explain problems and make agreements about lecture absenteeism. Meanwhile, to overcome the difficulties of obtaining capital, according to students, it can be

overcome by choosing a business with a smaller capital, looking for investors who are willing to invest funds in their business and inviting friends to become entrepreneurs together so that the capital burden can be shared.

Based on the results of this study, the following suggestions are proposed: (1) for further research in order to conduct research that produces strategic formulations for students in overcoming obstacles in entrepreneurship; (2) for the Peradaban University Campus to pay more attention to students who are entrepreneurs by adding facilities, such as additional classes that are more flexible and a place for student entrepreneurship forum. Organize programs that support student businesses and participate in government programs related to students and entrepreneurs.

ACKNOWLEDGMENT

Thank you for the participation of Manggar Lintang Nagari and Siti Badiatul Umroh for all the help in the research process and publication of this article.

REFERENCES

- AbduRofiq, A. (2014). Menakar Pengaruh Masyarakat Ekonomi ASEAN 2015 terhadap Pembangunan Indonesia. *Jurnal Filsafat dan Budaya Hukum*, 1(2), 249-256.
- Abdurochim, D., Hindarsah, I., & Suryaningprang, A. (2019). Strengthening Entrepreneurship in Millennials for Indonesia Competitiveness in the Asia Region. *International Conference of One Asia Community*, 1(1), 61-65.
- Apriana, D., Kristiawan, M., & Wardiah, D. (2019). Headmaster's Competency in Preparing Vocational School Students for Entrepreneurship. *International Journal of Scientific & Technology Research*, 8(8), 1316-1330.
- Ashkezari, M. R. D., & Ashkezari, A. Z. (2013). Identification, Analysis and Ranking the Barriers to Women's Entrepreneurship in Industry from the Perspective of Female Students. Case Study: The Female Students of Islamic Azad University, Yazd Branch. *Metalurgia International*, XVIII(11), 62-64.
- Davenport, T. H., Leibold, M., & Voelpel, S. C. (2007). *Strategic Management in the Innovation Economy: Strategic Approaches and Tools for Dynamic Innovation Capabilities*. John Wiley & Sons, Inc.
- Hadiyati, E. (2011). Kreativitas dan Inovasi Berpengaruh terhadap Kewirausahaan Usaha Kecil. *Jurnal Manajemen dan Kewirausahaan*, 13(1), 8-16.
- Hendro, I. (2011). *Dasar-dasar kewirausahaan: Panduan bagi Mahasiswa untuk Mengenal, Memahami, dan Memasuki Dunia Bisnis*. Jakarta: Penerbit Erlangga.
- Isenberg, D. J. (2010). How to Start an Entrepreneurial Revolution. *Harvard Business Review*, 88(6), 40-50.
- Keat, O. Y., Selvarajah, C., & Meyer, D. (2011). Inclination towards Entrepreneurship among University Students: An Empirical Study of Malaysian University Students. *International Journal of Business and Social Science*, 2(4), 206-220.
- Okpara, F. O. (2007). The Value of Creativity and Innovation in Entrepreneurship. *Journal of Asia Entrepreneurship and Sustainability*, 3(2), 1-14.

- Pratomo, L. C., & Wardani, D. K. (2021). The Effectiveness of Design Thinking in Improving Student Creativity Skills and Entrepreneurial Alertness. *International Journal of Instruction*, 14(4), 695-712.
- Ravallion, M. (2018). Inequality and Globalization: A Review Essay. *Journal of Economic Literature*, 56(2), 620-642.
- Saaty, T. L., & Vargas, L. G. (2001). *Models, Methods, Concepts, & Applications of the Analytical Hierarchy Process*. New York, USA: Springer Science Business Media.
- Saaty, T. L. (2008). Decision Making with the Analytical Hierarchy Process. *International Journal of Services Science*, 1(1), 83-98
- Setyaningsih, I. (2014). Analisis Faktor Penghambat Keberhasilan Mahasiswa Menjadi Entrepreneur. Universitas Muhammadiyah Surakarta, *Prosiding Industrial Engineering National Conference (IENACO)*, 535-541.
- Shobikah, N. (2017). The Importance of English Language in Facing ASEAN Economic Community (AEC). *At-Turats*, 11(1), 85-93.
- Sugiyono, S. (2014). *Metode Penelitian Kombinasi (Mixed Methods)*. Bandung, Indonesia: Alfabeta
- Suryana, S. (2014). *Kewirausahaan: Kiat dan Proses Menuju Sukses*. Jakarta, Indonesia: Salemba Empat.
- Tominanto, T. (2012). Sistem Pendukung Keputusan dengan Metode Analytical Hierarchy Process (AHP) untuk Penentuan Prestasi Kinerja Dokter pada RSUD Sukoharjo. *Infokes: Jurnal Ilmiah Rekam Medis dan Informatika Kesehatan*, II(1), 1-15. <https://doi.org/10.47701/infokes.v2i1.128>.
- Utomo, H. (2012). Kontribusi soft skill dalam menumbuhkan jiwa kewirausahaan. *Among Makarti: Journal of Economics & Business*, 3(1), 95-104. <http://dx.doi.org/10.52353/ama.v3i1.20>.
- Zulaikha, Z. F., Hariri, H., Rini, R., & Sowiyah, S. (2021). Analysis of Vocational Education Curriculum in ASEAN Economic Community: A Literature Review. *Journal of Social, Humanity, and Education*, 1(3), 157-170.