



The Effect Entrepreneurship Education and Subjective Norm on Biology Students' Self-Efficacy in Entrepreneurial

Agus Muliadi, *Baiq Mirawati, Saiful Prayogi

Faculty of Science, Engineering and Applied Science, Universitas Pendidikan Mandalika, Jl. Pemuda No. 59A, Mataram 83115, Indonesia

*Corresponding Author e-mail: baiqmirawati@undikma.ac.id

Received: May 2021; Revised: June 2021; Published: June 2021

Abstract

This study aims to determine the effect of entrepreneurship education and subjective norms on students' self-efficacy in the field of entrepreneurship. This study is an exploratory research with 35 students' of biology education as research subjects. The research instrument used is a closed questionnaire with answers that are degraded according to the Likert scale which has been declared valid and reliable to use. Analysis of research data used is descriptive statistics and inferential statistics with multiple linear regression test at a significance level of 5%. The results of the study show that (1) students' perceptions of entrepreneurship education have an average of 3.15 in the Good category, subjective norms of 3.06 in the Good category, and self-efficacy of 3.12 in the Good category; (2) There is an effect of entrepreneurship education and subjective norms on students' self-efficacy with an F value of 11.713 and a significance value (p) <0.05; (3) Entrepreneurship education and subjective norms simultaneously affect the self-efficacy of biology students' by 42.3% and the rest are influenced by other variables or factors.

Keywords: entrepreneurship education; subjective norm; self efficacy; biology students

How to Cite: Muliadi, A., Mirawati, B., & Prayogi, S. (2021). The Effect Entrepreneurship Education and Subjective Norm on Biology Students' Self-Efficacy in Entrepreneurial. *Prisma Sains : Jurnal Pengkajian Ilmu dan Pembelajaran Matematika dan IPA IKIP Mataram*, 9(1), 127-135. doi:<https://doi.org/10.33394/j-ps.v9i1.3981>



<https://doi.org/10.33394/j-ps.v9i1.3981>

Copyright© 2021, Muliadi et al

This is an open-access article under the [CC-BY License](https://creativecommons.org/licenses/by/4.0/).



INTRODUCTION

Indonesia is one of the countries with the largest population in the world with 271,349,889 people in December 2020 (BPS, 2020) and is equipped with an abundance of natural resources (Muliadi, Asri & Lestarini, 2020). The high population makes Indonesia an extraordinary world market potential, so that it can support the development of domestic industry (Rifkhan, 2017). In addition, the surplus population will make Indonesia have a large human resource strength if it can be developed properly. Nevertheless, current facts show that the development of the quality of Indonesian human resources has not been maximized, so that abundant natural resources cannot be managed optimally.

The increase in population every year has an impact on increasing the workforce, both educated and uneducated. This condition is still not balanced with the fulfillment of job opportunities, given the tendency of the workforce as job seekers, not as job creators. (Indriyatni, Wahyuningsih & Purwanto, 2014). This is indicated by based on data from the Central Statistics Agency (BPS) in May 2020, it is known that the open unemployment rate in Indonesia was 4.99% in February 2020, down from 5.01 in February 2019. The Open Unemployment Rate for college graduates is Diploma at 6.76 and University at 5.73 (BPS, 2020). This data explains that the educated unemployment rate for college graduates is still quite high and is a correction to education in higher education so far. This is possible because someone is very dependent on job opportunities (Santoso & Handoyo, 2019).

College graduates are expected to become agents of change for the surrounding community. College graduates should have good competence, life skills, and independence in order to be able to build a career (job creator) by empowering the surrounding resources, not the other way around being only able to be a job seeker (Muliadi, 2020; Muliadi, Asri & Lestarini, 2020). However, the BPS data above shows the fact that the existence of higher education graduates contributes to the unemployment rate, so it can be interpreted that these graduates still tend to choose as workers rather than building their own jobs or entrepreneurship. Therefore, it is necessary to have concrete solutions such as developing knowledge and skills of college graduates in entrepreneurship so that they have independence in building careers, reduce unemployment and a positive impact on the nation's economy (Listyawati, 2017; Mirawati, Wardana, & Sukaatmadja, 2016).

In the current era of the industrial revolution 4.0, universities must be able to develop Indonesian human resources who are capable, creative, innovative, productive, and independent (Muliadi & Mirawati, 2020). Entrepreneurial skills are one of the important competencies for graduates to have at this time, because entrepreneurship has a strategic role in solving unemployment and employment problems (Munawar & Supriatna, 2018). Entrepreneurship has a significant contribution to the economy of a nation, where the requirement for developed countries is that there must be at least 2% of entrepreneurs from the total population (Listyawati, 2017; Mirawati, Wardana, & Sukaatmadja, 2016). Entrepreneurs can help create employment opportunities, building companies, industries, and businesses (Munawar & Supriatna, 2018). According to Dewi (2016), one of the important programs to solve the problem of poverty and unemployment is by creating business fields and creating entrepreneurs.

According to Muliadi, Asri & Lestarini (2020), the Indonesian government has long recognized the importance of entrepreneurial skills to produce an independent generation. The government launched the National Entrepreneurship Movement since February 2011 to encourage people, especially the younger generation, to be active in entrepreneurship (Setyawan, 2016; Mirawati, Wardana & Sukaatmadja, 2016). Currently, every university is required to provide entrepreneurship education for its students', so that every graduate is expected to be the initiator of successful entrepreneurs, independent, have life skills, and be competitive (Primandaru, 2017; Darmawan & Warmika, 2016; Fatimah, 2013). According to Wahyuni & Hidayati (2017), every university requires the development of a broad-based curriculum (Broad Based Education) and oriented to life skills (life skills). (Darmawan & Warmika, 2016; Mirawati, Wardana, & Sukaatmadja, 2016). On curriculum of the Biology Education Study Program, Faculty of Science, Engineering, and Applied at Mandalika University of Education, entrepreneurship education is a compulsory subject.

Entrepreneurship education can facilitate students' in a structured and systematic way in developing entrepreneurial knowledge, attitudes, interests, and skills (Subagio, Muliadi & Sutarto, 2021; Muliadi, 2020; Supeni & Efendi, 2017; Setyawan, 2016). Graduates are expected to be capable, skilled, creative, innovative, and independent people in developing businesses. This is in accordance with Dewi (2016) opinion that an entrepreneur must have the ability, creativity, and innovation as the basis, tips, and resources to find opportunities for success. Suryana (2011) states that entrepreneurship is not only born but also made, meaning that entrepreneurship is not only an innate talent or a matter of field experience, but can also be learned and taught. Therefore, entrepreneurship education has a strategic role to develop knowledge, skills, attitudes, self-efficacy, interests, and talents in the field of entrepreneurship.

Entrepreneurship education is one of the important factors that influence success in growing one's entrepreneurial spirit (Dewi, 2016). The entrepreneurial knowledge and skills obtained by each students' are expected to be a self-efficacy reinforcement for entrepreneurship (Muliadi, 2019). Entrepreneurial knowledge will affect perceptions and attitudes, which in turn will affect students' self-efficacy and interest in entrepreneurship

(Muliadi, 2020; Muliadi, 2019; Hattab, 2014). This is confirmed by the opinion of Indrawati, Herkulana, & Syharud (2017) that students' self-efficacy in entrepreneurship is influenced by one's knowledge and attitudes as a form of positive or negative belief in an entrepreneurial behavior. Students' self-efficacy in entrepreneurship can be cultivated from an early age and through the learning process both on campus, family, and the surrounding environment (Srigustini, 2014; Muliadi & Mirawati, 2020). According to Santi, Hamzah & Rahmawati (2017) that Theory of Planned Behavior (TPB) confirms the existence of a Perceived Behavior Control variable or in operations it is called self-efficacy, which is a form of one's self-confidence in entrepreneurship from the internal side. *Self efficacy* entrepreneurship is a deliberate decision and can be planned, one of which is through entrepreneurship education (Wilson, 2007).

Students' knowledge of entrepreneurship gained through entrepreneurship education on campus can be strengthened by input and support from people around who are experienced in entrepreneurship (subjective norms). Subjective norms are one of the factors in the Theory of Planned Behavior (TPB) that influence *self efficacy* and students' interest in entrepreneurship, where individuals have confidence in fulfilling the directions or suggestions of people around them to participate in entrepreneurship activities (Listyawati, 2017; Wijaya, 2008). Opinion Indrawati, Herkulana, & Syharud (2017) assert that subjective norms are students' can receive direction or input from people around them about entrepreneurship, so they can be motivated and confident to run their business well. Meanwhile, according to Feldman (1995) (in Santi, Hamzah & Rahmawati, 2017) that subjective norms are individual beliefs about the surrounding environment and motivate individuals to follow these norms. Subjective norms can affect one's self-confidence (self-efficacy) for entrepreneurship from the external side in the form of support and motivation from the surrounding environment such as family, friends, lecturers, and successful entrepreneurs (Santi, Hamzah & Rahmawati, 2017).

The current condition of biology students' self-efficacy can be seen from their attitude and interest in entrepreneurship. Several previous research results explain the attitudes and interests of biology students' in entrepreneurship. The results of Muliadi's research (2020) prove that biology students' have entrepreneurial attitudes in a good category and there is a significant relationship between semester level and students' entrepreneurial attitudes. A similar study conducted by Muliadi & Mirawati (2020) explained that the entrepreneurial interest of biology students' was in the good category and was significantly influenced by the entrepreneurial attitude of students'. The results of another study by Subagio, Muliadi & Sutarto (2021) explained that male and female biology students' entrepreneurial interest in entrepreneurship was in both categories. The results of this study explain that biology education students' have good entrepreneurial attitudes and interests and are influenced by the level of students' knowledge about entrepreneurship. Based on this fact, it can be explained that the self-efficacy of biology students' is quite good in entrepreneurship. Therefore, it is necessary to do an exploration to find out the effect of entrepreneurship education and subjective norms on students' self-efficacy.

METHOD

This study is ex post facto research with an exploratory descriptive approach (Muliadi, Imran & Sutarto, 2021; Muliadi, 2020; Muliadi & Mirawati, 2020; Muliadi, Asri & Lestarini, 2020), to describe the effect of entrepreneurship education and subjective norms on students' self-efficacy in the entrepreneurial field. Ex post facto research is to examine causal relationships that are not manipulated or treated by researchers, but researchers only record data from activities that have occurred (Sugiyono, 2017; Arikunto, 2016; Singarimbun & Sofyan, 2009). The respondents of this study were students' of biology education at the Mandalika University of Education as many as 35 people obtained using the convenience sampling technique because they considered the accessibility of respondents in filling out online questionnaires during the covid-19 pandemic (Fink, 2011).

The research instrument that will be used is a closed questionnaire with attitude answers that are degraded according to the Likert scale (Muliadi, 2020) and using the google form media (Adha, et al., 2020). The instrument was prepared referring to indicators of students' perceptions of entrepreneurship education, subjective norms, and students' self-efficacy in the entrepreneurial field developed by Perwitasari (2017) and Muliadi & Mirawati (2020). The questionnaire was developed into 20 statements and validated by experts (expert) and declared valid.

The research data were analyzed using quantitative descriptive and inferential statistics. Quantitative descriptive analysis was used to describe data on students' perceptions of entrepreneurship education, subjective norms, and self-efficacy in the field of entrepreneurial. To interpret students' perception data, the assessment criteria developed by Muliadi (2020) are used as presented in the Table 1.

Table 1. Assessment criteria

| Average Score | Interpretation |
|---------------|----------------|
| 3.51 – 4.00 | Very good |
| 2.51 – 3.50 | Good |
| 1.51 – 2.50 | Quite |
| 1.00 – 1.50 | Less |

Inferential statistical analysis was used to determine the effect of entrepreneurship education and subjective norms on students' self-efficacy in the entrepreneurial field. The analytical technique used is multiple linear regression at a significance level of 5% ($\alpha=0.05$) with stages (Muliadi, 2020) namely (1) classical assumption test, namely linearity and multicollinearity tests; (2) the F-test was used to determine the effect of entrepreneurship education and subjective norms together on students' self-efficacy; (3) test the coefficient of determination to determine the percentage contribution of the effect of entrepreneurship education and subjective norms together on students' self-efficacy. The formulation of the statistical hypothesis is $H_0: \mu_1 = \mu_2$ (there is no significant effect entrepreneurship education and subjective norms together on students' self-efficacy) and $H_1: \mu_1 \neq \mu_2$ (there is a significant effect entrepreneurship education and subjective norms together on students' self-efficacy). If the results of the analysis are significant or the p-value of the multiple linear regression test is smaller than 0.05, then H_0 is rejected and H_1 is accepted or otherwise. The Cause and Effect Relationships regression equation model is presented in Figure 1.

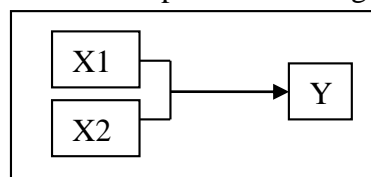


Figure 1. Model Cause and Effect Relationships

RESULTS AND DISCUSSION

The research data were analyzed using descriptive statistics and inferential statistics. Data descriptions of students' perceptions of entrepreneurship education, subjective norms, and students' self-efficacy are presented in Table 2.

Table 2. Students' perception data

| Variable | N | Σ Score | Average | Category |
|----------------------------|----|----------------|---------|----------|
| Entrepreneurship Education | 35 | 110.28 | 3.15 | Good |
| Subjective Norms | 35 | 107.33 | 3.06 | Good |
| Self Efficacy | 35 | 109.42 | 3.12 | Good |

Based on the Table 2, it is known that the average score of students' perceptions about entrepreneurship education is 3.15 in the Good category, subjective norms of 3.06 in the Good category, and self efficacy of 3.12 in the Good category. The description of the data is emphasized in the following Figure 2.

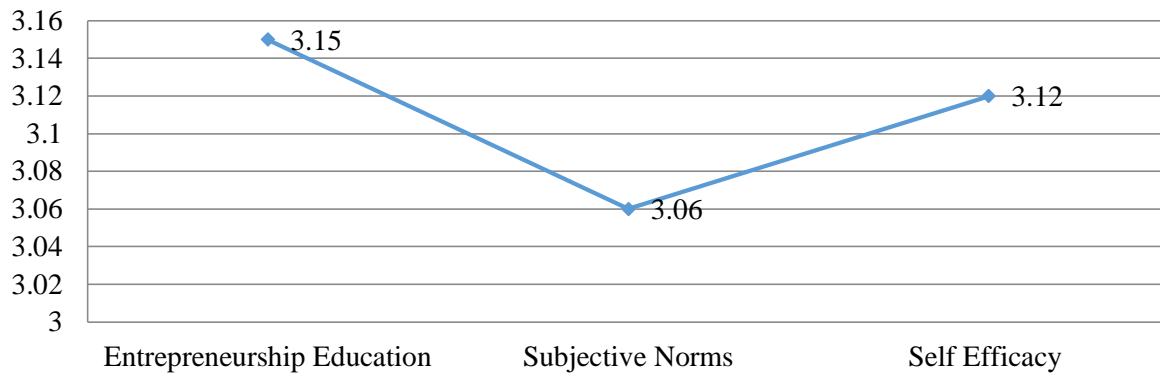


Figure 1. Average students' perceptions

Inferential statistical analysis with multiple linear regression test has stages, namely (1) classical assumption test, namely linearity and multicollinearity tests; (2) the F-test is used to determine the effect of entrepreneurship education (X_1) and subjective norms (X_2) simultaneously on students' self-efficacy (Y); (3) test the coefficient of determination to determine the percentage contribution of the influence of knowledge (X_1) and family environment (X_2) on students' self-efficacy (Y). The results of multiple linear regression are presented in Table 3,4,5 below.

Table 3. Linearity-multicollinearity test results

| Model | <i>Deviation from Linearity</i> | | Model | <i>Collinearity Statistics</i> | |
|----------|---------------------------------|--------------|---------------|--------------------------------|--------------|
| | F | Sig. | | <i>Tolerance</i> | VIF |
| X_1 -Y | 2.183 | 0.061 | X_1 - X_2 | 0.902 | 1.109 |
| X_2 -Y | 1,197 | 0.342 | | | |

Based on the Table 3, it is known that (1) there is a linear relationship between entrepreneurship education (X_1) and students' self-efficacy (Y), where the F value is 2.183 with a significance value (p-value) of 0.061 which is greater than the alpha test value of 0.05; (2), there is a linear relationship between subjective norms (X_2) and students' self-efficacy (Y), where the F value is 1.197 with a significance value (p-value) of 0.342 which is greater than the alpha test value of 0.05; (2) there is no symptom of multicollinearity between the independent variables, namely entrepreneurship education (X_1) and subjective norms (X_2), where the VIF value of 1.109 is smaller than 10.

Table 4. F test results (F-test)

| | <i>Sum of Squares</i> | <i>df</i> | <i>Mean Square</i> | F | <i>Sig.</i> |
|------------|-----------------------|-----------|--------------------|---------------|--------------|
| Regression | 157.032 | 2 | 78,516 | 11,713 | 0.000 |
| Residual | 214,510 | 32 | 6,703 | | |
| Total | 371.543 | 34 | | | |

Based on Table 4, it is know the multiple linear regression (F-test) results show that there is a significant effect of entrepreneurship education (X_1) and subjective norms (X_2) simultaneously on students' self-efficacy (Y), where the F value is 11.713 with a significance value (p-value) of 0.000 which is smaller than the alpha test value of 0.05.

Table 5. The results of the coefficient of determination

| <i>Model Summary</i> | | | | |
|----------------------|-----------------|--------------------------|-----------------------------------|--|
| R | <i>R Square</i> | <i>Adjusted R Square</i> | <i>Std. Error of the Estimate</i> | |
| 0.650 | 0.423 | 0.387 | 2, 58910 | |

Based on the Table 5, it is known that the R Square value is 0.423 or 42.3%, meaning that entrepreneurship education and subjective norms simultaneously affect students' self-efficacy by 42.3% and the rest is influenced by other variables or factors.

The elaboration of the results showed that (1) biology education students' at Mandalika University of Education had self-efficacy (belief) for entrepreneurship in the Good category; (2) entrepreneurship education and subjective norms have a significant effect on students' self-efficacy in the field of entrepreneurship. This fact shows that biology education students' have a high level of self-efficacy in the field of entrepreneurship, which means that they feel confident that they are capable of entrepreneurship. Students' who have self-efficacy in the field of entrepreneurship are influenced by many factors, where 42.3% are influenced by entrepreneurship education factors and subjective norms.

Entrepreneurship education and subjective norms have a positive impact on self-efficacy (students' beliefs) in entrepreneurship, because these two factors can strengthen students' knowledge and motivation about entrepreneurship. This positive impact proves the important role of entrepreneurship education courses taught to biology education students' at the Mandalika University of Education. Entrepreneurship education can facilitate biology education students' to develop entrepreneurship knowledge and skills, so that students' are more trained and will generate confidence to start a business. This is in accordance with the results of research by Santi, Hamzah & Rahmawati (2017) explaining that entrepreneurship education has a positive and significant influence on entrepreneurial beliefs and intentions. Another study also conducted by Turker & Selcuk (2009) explained that entrepreneurship education has a positive influence on students' in Turkey. Wilson (2007) asserts that students' self-efficacy for entrepreneurship is a deliberate decision and can be planned and developed through entrepreneurship education.

Effective entrepreneurship education can facilitate the development of students' self-efficacy in entrepreneurship through strengthening knowledge and skills. This is according to opinion Indrawati, Herkulana, & Syharud (2017) that students' self-efficacy in entrepreneurship is influenced by knowledge and attitudes, as a form of positive or negative belief in an entrepreneurial behavior. Students' self-efficacy in entrepreneurship can be cultivated from an early age and through the learning process both on campus, family, and the surrounding environment (Srigustini, 2014; Muliadi & Mirawati, 2020). According to Suryana (2011) that entrepreneurship is not only born but also made, it means that entrepreneurship is not only an innate talent or a matter of field experience, but can also be learned and taught. According to Dewi (2016), those who become entrepreneurs are individuals who know their potential and actively learn to develop that potential to seize opportunities and organize their business in realizing their goals. This means that students' knowledge about entrepreneurship will strengthen students' self-efficacy in entrepreneurship as a variable that precedes entrepreneurial interest (Santoso & Handoyo, 2019).

This study confirms that subjective norms are another important factor to strengthen students' self-efficacy in entrepreneurship. This means that the experience of people around in entrepreneurship such as lecturers, other students', successful entrepreneurs can motivate and influence students' self-efficacy for entrepreneurship. This is in accordance with the research results of Astuti & Martdianty (2012) explaining that subjective norms have a strong influence between self-efficacy and behavioral attitudes. The research of Santi, Hamzah & Rahmawati (2017) also confirms that subjective norms have a positive and significant effect on students' entrepreneurial beliefs and intentions. Therefore, subjective norms have a significant role in developing students' self-efficacy in entrepreneurship. Santi, Hamza & Rahmawati (2017) explains that subjective norms can affect one's self-efficacy for entrepreneurship from the external side in the form of support and motivation from the surrounding environment such as family, friends, lecturers, and successful entrepreneurs. This opinion is corroborated by the Theory of Planned Behavior (TPB) which explains that subjective norms are a factor that precedes *self efficacy* and interest (Listyawati, 2017; Wijaya, 2008).

CONCLUSION

Based on the results of the research and discussion above, it can be concluded that (1) Students' perceptions of entrepreneurship education have an average score was of 3.15 in the Good category, subjective norms of 3.06 in the Good category, and self-efficacy of 3.12 in the Good category; (2) There was an effect of entrepreneurship education and subjective norms on students' self-efficacy with an F value of 11.713 and a significance value of 0.000 which was smaller than the alpha test value of 0.05 (<0.05); (3) Entrepreneurship education and subjective norms simultaneously affect students' self-efficacy by 42.3% and the rest are influenced by other variables or factors.

RECOMMENDATION

This study did not examine the factors of the family environment, students' entrepreneurship attitudes and interests, so further research is needed to examine environmental support, students' attitudes and interests in entrepreneurship. Self-efficacy can act as a mediator (intermediate) variable, so it is necessary to examine the effects of entrepreneurship education and subjective norms with self-efficacy mediating on students' interest in entrepreneurship.

ACKNOWLEDGMENT

Our gratitude goes to (1) LPPM at Mandalika University of Education which has provided financial support through internal research schemes, (2) FSTT leader at Mandalika University of Education, (3) Head of Biology Education Study Program, and (4) Biology Education Students' who have provided assistance during the research.

REFERENCES

- Ajzen, I., & Fishbein, M. (2005). *The Influence of Attitude on Behavior*. The Handbook of Attitudes: Lawrence Erlbaum Associates.
- Arikunto. (2016). *Prosedur Penelitian (Suatu Pendekatan Praktik)*. Jakarta: Rineka Cipta
- Badan Pusat Statistik. (2020). *Keadaan Ketenagakerjaan Indonesia Februari 2020*. Jakarta: Berita Resmi Statistik.
- Darmawan, I.M.Y. & Warmika, I.G.T. (2016). Pengaruh Norma Subjektif, Personal Attitude, Perceived Behavior Control, dan Aspek Psikologis Terhadap Minat Wirausaha (*Entrepreneurial Intention*). *Jurnal Manajemen Unud*, 5 (7), 4660-4689.
- Dewi, N.L.A. (2016). Pengaruh Sikap Kewirausahaan Terhadap Kemampuan Mengelola Usaha Pada Peserta Program Mahasiswa Wirausaha (PMW) UNDIKSHA Tahun 2015, *Jurnal Program Studi Pendidikan Ekonomi (JPPE)*, 7 (2), 1-11. <http://dx.doi.org/10.23887/jjpe.v7i2.7741>
- Fatimah, S. (2013). Menumbuhkan Jiwa Wirausaha Muda dalam Pembelajaran Ekonomi. *CRIKSETRA: Jurnal Pendidikan dan Kajian Sejarah*, 3 (4), 1-9.
- Fink, A. (2011). *How to sample in surveys*. In *how to sample in surveys (2nd edition)*. Thousand Oaks, CA: SAGE Publication. <https://us.sagepub.com/en-us/nam/how-to-sample-in-surveys/book225416>
- Hattab, H. W. (2014). Impact of Entrepreneurship Education on Entrepreneurial Intentions of University students in Egypt. *The Journal of Entrepreneurship*, 23 (1), 1-18. <https://doi.org/10.1177%2F0971355713513346>
- Indrawati, S, Herkulana, H & Syahrud H. (2017). Pengaruh Sikap Dan Norma Subjektif Terhadap Minat Berwirausaha Siswa SMK Immanuel. *Jurnal Pendidikan dan Pembelajaran Katulistiwa*, 6 (12), 1-10.
- Listyawati, I.H. (2017). Pengaruh Sikap, Norma Subyektif dan Kontrol Keperilakuan Terhadap Niat Berwirausaha pada Mahasiswa di Yogyakarta. *Jurnal Bisnis, Manajemen, dan Akuntansi*, 4 (1), 57-68.

- Mirawati, N.M., Wardana, I.M., & Sukaatmadja, I.P.G. (2016). Pengaruh Sikap, Norma Subjektif, dan Persepsi Kontrol Keperilakuan, terhadap Niat Siswa SMK di Kota Denpasar untuk Menjadi Wirausaha. *Jurnal Ekonomi dan Bisnis*, 5 (7), 1981-2010.
- Muliadi, A., Imran, A. & Sutarto. (2021). Motivasi Belajar Kewirausahaan Ditinjau Dari Hasil Belajar: Mediasi Gender?. *JPIN: Jurnal Pendidik Indonesia*, 4 (1), 48-59. <https://doi.org/10.47165/jpin.v4i1.130>
- Muliadi, A. (2020). Sikap *Entrepreneur* Mahasiswa Pendidikan Biologi. *Jurnal Ilmu Sosial dan Pendidikan*, 4 (3), 286-291. <http://dx.doi.org/10.36312/jisip.v4i3.1208>
- Muliadi, A. (2020). Perbedaan Gender dalam Sikap *Entrepreneur* Mahasiswa Pendidikan Biologi. *Jurnal Ilmiah Mandala Education*, 6 (2), 329-334. <http://dx.doi.org/10.36312/jime.v6i2.1439>
- Muliadi, A. (2020). Microbiology Learning Based on Bioentrepreneurship: Prospective Teacher's Perception. *Jurnal Ilmu Sosial dan Pendidikan*, 4 (4), 352-357. <http://dx.doi.org/10.36312/jisip.v4i4.1527>
- Muliadi, A. & Mirawati, B. (2020). The Impact of Personal Attitude and Subjective Norm on Entrepreneurial Interest of Biological Education Students. *E-Saintika: Jurnal Penelitian dan Pengkajian Ilmu Pendidikan*, 4 (3), 342-351. <https://doi.org/10.36312/e-saintika.v4i3.307>
- Muliadi, A., Asri, I.H. & Lestarini, Y. (2020). Efek Pengetahuan dan Lingkungan Keluarga terhadap Sikap *Entrepreneur* Mahasiswa. *Educatio: Jurnal Ilmu Kependidikan*, 15 (2), 65-77. <https://doi.org/10.29408/edc.v15i2.2836>
- Muliadi, A. (2019). Pembelajaran Biologi Berbasis *Entrepreneurship*. *Proceeding National Conference: Education, Social Science, and Humaniora*, 1 (1), 269-275.
- Munawar, A. & Supriatna, N. (2018). Pengaruh Sikap dan Motivasi Terhadap Minat Berwirausaha Siswa. *Jurnal Kajian Pendidikan Ekonomi dan Ilmu Ekonomi*, 2 (1), 14-23. <http://dx.doi.org/10.23969/oikos.v2i1.916>
- Mustofa, M.A. (2016). *Pengaruh Pengetahuan Kewirausahaan, Self Efficacy, dan Karakter Wirausaha terhadap Minat Berwirausaha pada Siswa Kelas XI SMKNegeri 1 Depok Kabupaten Sleman. Skripsi*. Universitas Negeri Yogyakarta.
- Nurseto, T. (2010). Pendidikan berbasis *Entrepreneur*. *Jurnal Pendidikan Akuntansi Indonesia*, 7 (2), 52 – 59. <https://doi.org/10.21831/jpai.v8i2.954>
- Pamungkas, A.P. (2017). *Pengaruh Self Efficacy, Pendidikan Kewirausahaan dan Ekspektasi Pendapatan terhadap Minat Berwirausaha Mahasiswa Program Studi Akuntansi Fakultas Ekonomi Universitas Negeri Yogyakarta*. Skripsi. Universitas Negeri Yogyakarta
- Primandaru, N. 20017 Analisis Faktor-Faktor Yang Berpengaruh Pada Minat Berwirausaha Mahasiswa. *Jurnal Economia*, 13 (1), 1-10.
- Rifkhan. (2017). Pengaruh Sikap, dan Motivasi terhadap Minat Berwirausaha Mahasiswa Akuntansi Universitas Pamulang. *Jurnal Ilmiah Akuntansi Universitas Pamulang*, 5 (1), 1-34. <http://dx.doi.org/10.32493/jiaup.v5i1.645>
- Santi, N., Hamzah, A. & Rahmawati, T. (2017). Pengaruh Efikasi Diri, Norma Subjektif, Sikap Berperilaku, dan Pendidikan Kewirausahaan Terhadap Intensi Berwirausaha. *Jurnal Inspirasi Bisnis dan Manajemen*, 1, (1), 63-74. <https://dx.doi.org/10.33603/jibm.v1i1.481>
- Santoso, S.A.& Handoyo, S.E. (2019). Pengaruh Sikap, Norma Subyektif, Kontrol Perilaku Yang Dirasakan, Dan Orientasi Peran *Gender* Terhadap Intensi Berwirausaha Di Kalangan Mahasiswa Fakultas Ekonomi Universitas Tarumanagara. *Jurnal Manajerial dan Kewirausahaan*, 1 (1), 1-13.
- Setyawan, A. (2016). Apakah Gender Bermakna Pada Model Pembentukan Minat Berwirausaha?. *Jurnal Manajemen Teori dan Terapan*, 9 (2), 120-127. <http://dx.doi.org/10.20473/jmtt.v9i2.3017>

- Singarimbun, M. & Efendi, S. (2006). *Metode Penelitian Survei (Edisi Revisi)*. Jakarta Barat: Pustaka LP3ES Indonesia.
- Srigustini, A. (2014). *Pengaruh Efikasi Diri, Pengetahuan Kewirausahaan Dan Kecakapan Vokasional Terhadap Sikap Wirausaha Serta Implikasinya Terhadap Minat Berwirausaha Siswa SMK Berdasarkan Bidang Studi Keahlian*. S2 thesis, Universitas Pendidikan Indonesia.
- Subagio, Muliadi, A., & Sutarto. (2021). Minat Berwirausaha Mahasiswa Calon Guru : Mediasi Gender?. *JPIN: Jurnal Pendidik Indonesia*, 4 (1), 107-115. <https://doi.org/10.47165/jpin.v4i1.141>
- Sugiyono. (2017). *Metode Penelitian Kualitatif, Kuantitatif, dan R&D*. Bandung: Alfabeta.
- Supeni, R.E dan Efendi, M. (2017). Minat Mahasiswa dalam Berwirausaha Perguruan Tinggi Swasta di Kabupaten Jember. *Prosiding Seminar Nasional dan Call For Paper Ekonomi dan Bisnis*. Jember, 27-28 Oktober 2017: 449-463.
- Suryana, Y. (2011). *Kewirausahaan Pendekatan Karakteristik Wirausahaan Sukses*. Jakarta: Kencana Prenada Media Group.
- Wahyuni, W.R dan Hidayati, W. (2017). Peran Sekolah dalam Membentuk Keterampilan Wirausaha Berbasis Tauhid di SD *Entrepreneur Muslim Alif-A Piyungan Bantul Yogyakarta*. *MANAGERIA: Jurnal Manajemen Pendidikan Islam*, 2 (2), 359-377. <https://doi.org/10.14421/manageria.2017.22-08>
- Widayoko, A. (2016). *Pengaruh Efikasi Diri, Norma Obyektif, Sikap Berperilaku, dan Pendidikan Kewirausahaan Terhadap Intensi Berwirausaha Mahasiswa Fakultas Ekonomi Universitas Negeri Yogyakarta*. Skripsi. Universitas Negeri Yogyakarta
- Wijaya, T. (2008). *Studi Meta-Analisis Hubungan Efikasi Diri Dan Sikap Toleransi Risiko Dengan Intensi Berwirausaha*. Program Doktor Psikologi UGM.
- Wilson, F. (2007). Gender, Entrepreneurial Self-Efficacy, and Entrepreneurial Career Intentions: Implications for Entrepreneurship Education. *Entrepreneurship Theory and Practice Journal*, 31 (3), 387-407. <http://dx.doi.org/10.1111/j.1540-6520.2007.00179.x>