

Comparative Study of Entrepreneurship Intentions Before and During the Covid-19 Pandemic Students of The Faculty of Economics and Business, University of Muhammadiyah Prof. DR. Hamka

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Abstract

Entrepreneurial intentions play a central role in the entrepreneurial process as it is the initial stage of entrepreneurial activity that encourages individuals to start new businesses in a variety of industries. This research aims to find out the entrepreneurship intentions of students of the Faculty of Economics and Business, University of Muhammadiyah Prof. Dr. Hamka before and during the Covid-19 pandemic. The object of the research is a student of the Faculty of Economics and Business UHAMKA. This research uses quantitative methods with comparative analysis, as this type of method is most widely used in entrepreneurial studies and makes it possible to support sample data collection, validation of theories and relationships between collected variables, generalizing the results of the research obtained, and replication of different samples. Two samples were collected through questionnaires taken from students who actively attended lectures before and during the COVID-19 pandemic. The first sample (sample 1) corresponds to the period before COVID-19, with 96 students having been collected between June 2019 and December 2019, while the second sample (sample 2), with 96 students, was collected during the pandemic period between August 2020 and February 2021. Data analysis methods include descriptive statistical tests, normality tests and Wilcoxon sign rank tests. The results showed that the overall indicators of behavioral planning theory, namely attitudes, subjective norms, behavioral control before and during the covid-19 pandemic were different, meaning attitudes, subjective norms and control of student behavior were higher than before the pandemic. Student entrepreneurship intentions are higher during covid-19 than before covid-19.

Keywords: *Theory of Planned Behaviour, Entrepreneurship Intentions*

1. Introduction

Before completing formal education students must dare to start an entrepreneur, and must change the mindset from jobseeker (job seeker) after completing higher education to job creator (job maker), the earlier starting an entrepreneur will be better. It should motivate that Higher Education does not guarantee a person will get a decent job, as the number of formal jobs is limited. Therefore, students must prepare their future early on, in order to be able to compete and not add to the ranks of educated unemployed in the country.

The emergence of the Covid-19 pandemic since the end of 2019, the world has faced health problems. This quickly brings socio-economic impact on a world scale, creating an unprecedented environment and conditions of very high uncertainty (Hernandez, 2020). With this new crisis, many companies are closing down and substantially changing their business models. In this context, entrepreneurship and innovation have great

potential to mitigate the negative impacts of pandemics. Entrepreneurship is the determining factor for improving, developing socioeconomic and welfare of the country, as well as creating value and wealth (Hernandez, 2020, Fayolle, 2016). Thus, individual talent, and entrepreneur experience should be a resource and part of the solution in overcoming crises and turning weaknesses into a source of competitive advantage of a country (Ruiz-Rossa, 2020; Fernandez, 2019). Entrepreneurship is widely accepted by the international and academic community as an important catalyst in regional and state development (Farinha, 2020; Lopes, 2018); Nonetheless, the results of studies on the importance of entrepreneurship in situations of uncertainty are very limited (Hernandez, 2020; Branzei, 2010). Covid-19, currently originating in China's Wuhan, in December 2019 spread rapidly throughout the world, and has infected at least 104,963,559 people and caused the deaths of 2,286,850 people as of February 5, 2021. In the same period in Europe infected with the virus as many as 32,047,663 people, resulting in 845,847 deaths. In Indonesia for the same period registered 755,774 cases, causing 13,740 deaths (<https://coronavirus.r.r.sapo.pt/>, December 2020). On March 11, 2020, the World Health Organization (WHO) officially announced a global pandemic identified in 114 countries (Mahase, 2020). Based on data from the Ministry of Health, the number of Covid-19 cases in Indonesia until July 19, 2021 exceeded China. From June 2020 to August 2021 infected as many as 4,167,511 people, the death rate was 138,889 people (Source: Ministry of Health, September 13, 2021).

Student entrepreneurship interest in higher education has motivated the interest of researchers and policymakers. But a deeper understanding of the factors driving students' interest in participating in entrepreneurial activities is essential (O'Kane, 2020; Edwards, 2009). Many students want to become entrepreneurs because they realize that entrepreneurship will bring higher benefits such as increased pay, satisfaction, and a better reputation (Lam, 2010; Praag, 1995). Entrepreneurship interest in education is much more developed through the foundation of spin-offs, which aim to transfer the knowledge generated at the College and turn it into a marketable service (Lopes, 2018; Siegel, 2018). The current Covid-19 pandemic will have an impact on the development of businesses and potential entrepreneurs in creating future businesses, and there is still a lack of relevant study results on students' entrepreneurial interests in colleges. Several scientific publications discuss entrepreneurship intentions related to the intention to start a business (Start-up), and the profitable business processes of entrepreneurial activities (Wang, 2021; Lopes, 2020; Esfandiar, 2019). From a number of existing scientific publications about entrepreneurship interest in college in situations of disaster, uncertainty, or pandemic are still very limited (Hernandez, 2020; Baum, 2004; Miller, 2015). This study aims to find out the intentions of entrepreneurship students before and during the Covid-19 pandemic. This research was conducted at the Faculty of Economics and Business, University of Muhammadiyah Prof. Dr. Hamka, exclusively students who actively participated in learning before and during the COVID-19 pandemic. We hope that this study will contribute to clarifying about entrepreneurship interest in pandemic situations. From the results of this study we will recommend to universities in particular and policymakers in general, to maintain or increase entrepreneurship interest in the face of pandemic crises.

2. Literature Review

Entrepreneurship applies to businesses large and small, both economic and non-economic activities (Toma, 2019; Schumpeter, J.A. 1911, 1973). Different entrepreneurs may have similar traits, but they will all have unique differences. Entrepreneurship plays an important role in the economic growth and development of the country, the creation of new products and technological changes in the production process and economy. Traditional neoclassical theory states that a country's economic growth is determined by the supply of labor and capital that a country has and the level of technology it has in that country. The level of technology of a particular society depends heavily on the level of knowledge in that society. An entrepreneur is a person who starts a business, looking for change and is able to respond to business opportunities. Entrepreneurship involves a blend of capital, technology and human talent. (Toma, 2019; Schumpeter, J.A. 1911, 1973). Entrepreneurship has a positive impact on economic development as it prepares for capital formation, generates jobs, improves living

standards and decentralizes the distribution of economic resources, increases Gross National Product per capita income, promotes export trade and facilitates overall nation-building (Grimsley, S. 2016; Chandler, A.D.1962).

In the midst of pandemic conditions that occur and changes in the socio-economic and political environment that produce few job opportunities, preparing college graduates to have an interest in entrepreneurship as a livelihood option when they graduate and are not absorbed by the industrial world is part of the solution. This is because entrepreneurship can be their vehicle in a career without limits and flexible (Gelderen, 2008). The availability of graduates who are ready to work in various industries must be able to create college graduates who have entrepreneurship intentions embedded in their respective personalities (Kurnia, 2018). In the current situation of uncertainty one of the right solutions is to prepare students in college, in order to have strong creativity and innovation to create talented young entrepreneurs and have adequate skills.

Entrepreneurial Intentions

Intention of directing behavior and making a person adopt a plan in the future becomes possible (Concerned et al., 2016). According to Suryana (2013) in Anggraeni & Harmanik (2015), indicators of an entrepreneur's interest include confidence, task and results-oriented, risk-taking, leadership, originality, and future-oriented. Entrepreneurship is a process of creativity and innovation where there is potential to add value to products, create jobs, increase productivity, revitalize and diversify markets, improve social welfare, and economic development (Guerrero et al., 2008; Urbano et al., 2017; Esfandiar et al., 2019). Self-employment is changing mindsets and empowering oneself to promote economic development with job creation and integrating the global economy (Hisrich and Peters, 2012). Entrepreneurship often leads to innovation and development (Drucker, 1999). Entrepreneurship is very important for developing countries because it is able to promote economic growth and innovative capacities of various industries (Ribeiro – Soriano, 2017). Job creation, economic development, and poverty reduction are the main benefits of entrepreneurship (Willis, 2011; Ribeiro Soriano, 2017). Thus, to ensure a new entrepreneur's sustainable source of economic growth, scholars and policymakers must be aware of potential entrepreneurial intentions as well as the factors that drive entrepreneurship.

To encourage the spirit of entrepreneurship, it is necessary to understand the potential of human decision-making (Autio et al., 2001). Therefore, many studies have been conducted focusing on the concept of entrepreneurship intentions. Entrepreneurship intentions are the first step in the process of business formation /creation (Engle et al., 2010), because entrepreneurship is a predictable activity (Krueger and Carsrud, 1993). Thus, entrepreneurship intentions are used to predict future entrepreneurial behavior (Krueger et al., 2000a, b; Linan and Chen, 2009). Some experts emphasize that the stronger the intention of entrepreneurship, the higher the opportunity to create / form new business activities (Botsaris and Vamvaka, 2016; Kautonen et al., 2015). A number of studies on entrepreneurship focus on the concept of entrepreneurial intention assuming that, *first*, entrepreneurial intentions are an important step in building the foundation of a business organization; *Second*, entrepreneurship was largely created with strong intentions (Engle et al., 2010) because business is what people plan for (Krueger and Carsrud, 1993). Thus, entrepreneurial intentions have proven to be a major factor for predicting future entrepreneurial behavior (Krueger et al., 2000a, b; Botasris and Vamvaka, 2016). Entrepreneurial intentions play a central role in the entrepreneurial process because it is the initial stage of entrepreneurial activity that encourages individuals to start their new business (Krueger and Carsrud, 1993). Recent research has recognized the importance of the entrepreneurship intention model because it includes a theoretical perspective to explain the determinants of entrepreneurial intentions (Autio et al., 2001; Krueger et al., 2000a,b; Linan and Chen, 2009; Maresch et al., 2016; Guerrero et al., 2008; Esfandiar et al., 2019; Nguyen et al., 2019).

The important role of entrepreneurship intentions is affirmed in the statement Krueger et al. (2000a, b) that entrepreneurship intentions signified how intensely a person prepares and how much effort is planned to commit to carrying out entrepreneurial behavior. Because of the importance of this topic, research on entrepreneurial intentions has often been conducted (Esfandiar et al., 2019; Fayolle and Linan, 2014). But there have been no

specific studies reconciling alternative models of entrepreneurship. Some authors point to the compatibility of intention-based models (Boyd and Vozikis, 1994; Krueger et al., 2000a, b; Fayolle and Linan 2014). Planned behavior theory (Ajzen, 1991) is seen as one of the most common approaches, relevant and provides key specifications (Fayolle and Linan 2014).

Theory of Planned Behavior (TPB)

The Theory of Planned Behavior (TPB), derived from the Theory of Reasoned Action (TRA), was developed (Ajzen, 1985). In this model, the individual performance of a particular behavior is predicted by three variables, namely; Individual attitudes toward behavior, subjective norms and perceived behavioral control. Collectively, these three elements lead to the formation of an intention to behave that ultimately affects a person's behavior (Ajzen, 2002). TPB explains that attitudes are assumed to influence intentions that turn into behavior directly. So, in other words, attitudes are widely used to predict behavior. There are several studies that attitudes are a learned tendency to respond consistently to good or bad attitudes toward certain objects (Fishbein & Ajzen, 2005). (Heyl, M., Díaz, E.M., & Cifuentes, 2013) describes attitudes as a tendency to respond in consistently favorable or unfavorable ways regarding environmental issues. Attitude as a learned tendency to respond consistently to good attitudes or not about entrepreneurship problems, in this case the intention of behaving becomes very important, to encourage each individual student to become an entrepreneur. Subjective norms are defined as perceived social pressure to perform or not perform a behavior (Ajzen, 1985).

Subjective norms are individual actions suggested by close friends to influence an individual's behavior. It can also be the consent or disapproval of someone to commit a behavior (Ajzen, 1991). In other words, subjective norms concern whether recommendations or suggestions for behavior are approved or not. If the recommendation advises a person to become an entrepreneur, then the individual will have more intention to realize his intentions (Han & Kim, 2010). Perceived behavior control (PBC) refers to how easy or difficult a person feels to perform a behavior (Ajzen, 1991). Perceived behavioral control relates to an individual's assessment of a person's ability to engage in certain behaviors (Ajzen, 1991). Behavioral intent is defined as the possibility of a subject or a person performing some behavior (Fishbein, M., & Ajzen, 1975). Intention of behaving is positively influenced by a person's confidence in the ability to perform a behavior (Cheng, S., Lam T., Hsu, 2006). According to Ajzen (1985), behavioral intentions are a motivating factor that captures how much effort a person is willing to make. The intention of entrepreneurship is the possibility that someone will create an entrepreneur. When the intention arises, it will positively build the entrepreneur. Student entrepreneurship intentions during the covid-19 pandemic are higher than before the covid-19 pandemic (Lopes, 2021).

Employee performance according to Hasibuan (2012: 94) can be interpreted as a result of work achieved by a person in carrying out the tasks assigned to him based on skills, experience, and seriousness and time. Meanwhile, Abdullah (2014: 3) states that employee performance is the result of work or employee performance. According to Mangkunegara (2008) Performance is the result of work in quality and quantity achieved by an employee in carrying out his duties in accordance with the responsibilities assigned to him. As we know there are many factors that influence a person's performance both from within the person and factors from outside.

3. Research Hypothesis

The entrepreneurship intentions of FEB-UHAMKA students during the pandemic were higher than before the COVID-19 pandemic.

4. Research Methodology

This research uses quantitative methods with comparative analysis, as this type of method is most widely used in entrepreneurial studies (Rispa-Hlady, 2014) because it makes it possible to support the collection of sample data, validation of theories and relationships between collected variables, generalizing the results of the research obtained, and replication of different samples (Maulada, 2020; Anderson 2014). Two samples were collected through questionnaires taken from students who actively attended lectures before and during the COVID-19 pandemic. The first sample (sample 1) corresponds to the period before COVID-19, with 96 students having been collected between June 2019 and December 2019, while the second sample (sample 2), with 96 students, was collected during the pandemic period between August 2020 and February 2021. The questionnaire, which was submitted to respondents to collect their responses about entrepreneurship intentions, was posted through the social network of class groups in a Google form according to a predetermined time. The questionnaire is based on the models applied by Liñán, et al (Linan, 2007) and (Lopes, 2020, 2021).

This questionnaire includes five groups of questions: (1) sociodemographic characteristics; (2) question group B assesses the tendency of the respondent's personal attitude; (3) question group C assesses Subjective Norms, (4) question group D related to perception measurement Of respondents' behavioral control towards entrepreneurship; and (5) question group E assesses the respondent's entrepreneurship intentions. All answers to questions in groups B, C, and D were measured using a five-point Likert scale. Questions from groups B through E use the consent scale, where 1—strongly disagree and 5—strongly agree. The same data collection procedure was applied to both student samples before and during the covid-19 pandemic. Results of research and discussion. The results of the study at students of the Faculty of Economics and Business, University of Muhammadiyah Prof. Dr. Hamka, described based on demographic data of respondents, data from questionnaires on behavioral planning theory and entrepreneurship intention data, as follows:

a.) Characteristics of Respondent

Table 1. Characteristics of Respondents

No	Sociodemographic	Sample 1	Sample 2
1	Age:		
	Minimum	18	18
	Maximum	22	22
2	Gender:		
	Male	34	43
	Female	62	53
3	Residence:		
	Jabodetabek	59	72
	Outside of Jabodetabek	37	24
4	Education Level:		
	Diploma III	25	11
	Bachelor Degree (S1)	71	85
	Study Program:		
	S1 Accounting	30	26
	S1 Management	49	50
	S1 Islamic	8	9
	Economics	6	8
	D3 Taxation	3	3
	D3 Accounting		

No	Sociodemographic	Sample 1	Sample 2
Total of Respondent		96	96

Source: Data Processing Result

The characteristics of study respondents based on age, before the pandemic the minimum age of respondents 18 years and a maximum of 22 years, and respondents during the pandemic were the same. The gender of respondents before the pandemic was 34 men and women 62 people, then the gender of respondents during the pandemic as many as 43 men and 53 women. The origin of the respondents' residence before the pandemic came from jabodetabek as many as 59 people and from outside jabodetabek 37 people. Then the respondents who came from jabodetabek during the pandemic as many as 72 people and came from outside jabodetabek as many as 24 people. For the level of education of respondents before the pandemic diploma level as many as 25 people and the level of strata one 71 people, while the level of education of the hospital during the pandemic as many as 19 diplomas and 85 people strata one. The study program of respondents before the pandemic were the most management study program as many as 50 people and the Diploma 3 accounting program as many as 3 people.

b.) Normality tests

Normality tests use the Kolmogorov Smirnov and Saphiro-Wilk methods. How to test normality is to compare the probability (p) obtained with a significant level (α) 0.05. If the value $p > \alpha$ then distributed normally or vice versa.

Table 2. Normality Test results

	Tests of Normality					
	Kolmogorov-Smirnov ^a			Shapiro-Wilk		
	Statisti			Statisti		
	c	df	Sig.	c	df	Sig.
SS	.116	96	.003	.979	96	.129
SM	.192	96	.000	.887	96	.000
NS	.225	96	.000	.883	96	.000
NM	.178	96	.000	.892	96	.000
MBS	.136	96	.000	.946	96	.001
MBM	.152	96	.000	.922	96	.000
NBS	.137	96	.000	.974	96	.053
NBM	.139	96	.000	.929	96	.000

a. Lilliefors Significance Correction

Source: Data Processing Results

The normality test results of each variable show a probability value of <0.05 , this indicates that the data is abnormally distributed ($p < 0.05$).

c.) Descriptive Analysis of Research Questionnaire

Description of research results is a comparison between mean values, standard deviations, minimum values, and maximum values of attitude indicators, subjective norms, behavioral control and entrepreneurship intentions. This descriptive analysis aims to provide an overview of the actual condition of the research object.

Table 3. Descriptive of Respondents' Answer Statistics

Descriptive Statistics					
	N	Mini mum	Maxi mum	Mean	Std. Deviation
SS	96	18.00	30.00	23.5417	2.22387
SM	96	19.00	28.00	23.6875	1.59151
NS	96	10.00	15.00	11.9896	1.10019
NM	96	10.00	15.00	12.8854	1.64713
MBS	96	22.00	30.00	26.7604	2.03001
MBM	96	19.00	30.00	23.8437	2.45090
NBS	96	18.00	29.00	23.4792	2.16177
NBM	96	21.00	29.00	26.5417	1.84629
Valid N (listwise)	96				

Source: Data Processing Results

The table above shows that the average value of respondents' attitudes before the pandemic was 23 and during the pandemic by 24 means that respondents' attitude to entrepreneurship during the pandemic was higher than before the pandemic. The subjective norms of respondents before the pandemic averaged 12 and during the pandemic by 13, the subjective norms of respondents during the pandemic were greater than before the pandemic. Behavioral control of respondents' average scores before pandemics by 26 and during pandemics by 23, then for subjective norms before pandemics greater than the average value during a pandemic. Then the average value of entrepreneurship intentions before the pandemic was 23 and during the pandemic by 26, the respondent's entrepreneurship intentions during the pandemic were greater than before the pandemic.

d.) Hypothesis Test

Table 4. Test Results Different Attitude Variables, Subjective Norms, Behavioral Control and Entrepreneurship Intentions

Test Statistics ^a				
	Attitudes During – Attitudes Before	Norms During – Norms Before	K Behavior or Intentions during K Behavior or Intentions before	Intentions During – Intentions Before
Z	-5.942 ^b	-4.680 ^b	-7.402 ^c	-7.760 ^b
Asymp. Sig. (2-tailed)	.000	.000	.000	.000
a. Wilcoxon Signed Ranks Test				
b. Based on negative ranks.				
c. Based on positive ranks.				

Based on the results of different tests conducted with the Wilcoxon Signed Rank Test, the attitude variable obtained a value of Z of -5,942 with p value (Asymp. Sig 2 tailed) of 0.000 is less than the critical research limit of 0.05 and the Z value calculates < -1.96 so the hypothetical decision is to accept H1 means and reject H0. This means that there is a significant difference between the attitudes of students before and during COVID-19. The subjective norm variable obtained Z by -4,680 with p value (Asymp. Sig 2 tailed) of 0.000 with a critical research limit of 0.05 and a Z grade of < -1.96 so that the hypothetical decision is to accept H1 meaning there is a significant difference between the subjective norms of students before and during COVID-19. Based on the results of research on the theory of behavior and entrepreneurship intentions of students of the Faculty of Economics and Business HAMKA during the Covid-19 period is higher than before Covid-19. Meaning that the entrepreneurship intentions of students during the COVID-19 pandemic are higher than before the pandemic period, it supports the results of Lopes' research, 2021

5. Conclusion

Based on the results of analysis and discussion of research on differences in entrepreneurship intentions of students of the Faculty of Economics and Business UHAMKA before and during the pandemic, it can be concluded that:

- a. There is a significant difference between the attitudes of students before and during COVID-19
- b. There are differences in ENTREPRENEURSHIP.
- c. There is a significant difference between the subjective norms of students before and during COVID-19
- d. There is a significant difference between the control of student behavior before and during COVID-19
- e. There is a significant difference between the intentions of student entrepreneurs before and during COVID-19

References

- Ajzen, I. 1985. *From intentions to actions: a theory of planned behavior*. In: Kuhl, J., Beckman, J. (Eds.), *Action-control: from Cognition to Behavior*. Springer, Heidelberg. (Retrieve 29 September 2021)
- Ajzen, I. 1991. The theory of planned behavior. *Organizational Behavior and Human Decision Processes*, 50(2), 179–211. (Retrieve 29 September 2021)
- Ajzen, I. 2002. Perceived behavioral control, self-efficacy, locus of control, and the theory of planned behavior. In *J. Appl. Soc. Psychol.* (Vol. 32). (Retrieve 29 September 2021)
- Anderson, B.S.; Wennberg, K.; McMullen, J.S. 2019. Editorial: Enhancing quantitative theory-testing entrepreneurship research. *J. Bus. Ventur.*, 34. https://www.researchgate.net/publication/331294102_Editorial_Enhancing_quantitative_theory-testing_entrepreneurship_research/link/5ea83fa7299bf1dcb09eca3c/download (Retrieve, 29 September 2021)
- Anggraeni, B., & Harmanik. 2015. Pengaruh Pengetahuan Kewirausahaan Dan Lingkungan Keluarga Terhadap Minat Berwirausaha Siswa Kelas XI SMK Islam Nusantara Comal Kabupaten Pematang. *Jurnal Dinamika Pendidikan*, X(1), 42–52. (Retrieve 29 September 2021)
- Autio, E.; Keeley, R.H.; Klofsten, M.; Parker, G.G.C.; Hay, M. 2001. Entrepreneurial Intent among Students in Scandinavia and in the USA. *Enterp. Innov. Manag. Stud.* , 2, 145–160. (Retrieve 29 September 2021)
- Baum, J.R.; Locke, E.A. 2004. The Relationship of Entrepreneurial Traits, Skill, and Motivation to Subsequent Venture Growth. *J. Appl. Psychol.* , 89, 587–598. [CrossRef] [PubMed]
- Bercovitz, J.; Feldman, M. 2008. Academic entrepreneurs: Organizational change at the individual level. *Organ. Sci.* , 19, 69–89.
- Bird, B. 1988. Implementing Entrepreneurial Ideas: The Case for Intention. *Acad. Manag. Rev.* , 13, 442–453. (Retrieve 29 September 2021)
- Bozzoli, C.; Brück, T.; Wald, N. 2012. Self-employment and Conflict in Colombia. *J. Confl. Resolut.* , 57, 117–142. (Retrieve 29 September 2021)
- Branzei, O.; Abdelnour, S. 2010. Another day, another dollar: Enterprise resilience under terrorism in developing countries. *J. Int. Bus. Stud.* , 41, 804–825.
- Bullough, A.; Renko, M.; Myatt, T. Danger Zone Entrepreneurs: The Importance of Resilience and Self-Efficacy for Entrepreneurial Intentions. *Entrep. Theory Pract.* **2014**, 38, 473–499. (Retrieve 29 September 2021)
- Canever, M.D.; Barral, M.R.M.; Ribeiro, F.G. 2017. How does the public and private university environment affect students' entrepreneurial intention? *Educ. Train.* , 59, 550–564. (Retrieve 29 September 2021)
- Chandler, A.D. 1962, *Strategy and structure: chapters in the history of the industrial enterprise*. Cambridge, [Mass.] M.I.T. Press.
- Chandler, A. D. 1977, *The visible hand*. London: Belknap. Chandler, A. D. (1990), *Scale and scope*. London: Belknap. (Retrieve 29 September 2021)
- Channon, D.F. 1973, *The strategy and structure of British enterprise*, London: Macmillan. (Retrieve 29 September 2021)
- Cheng, S., Lam T., Hsu, C. C. 2006. Negative word of mouth communication intention: an application of the theory of planned behavior. *J. Hosp. Tour*, 30(1), 95–116. <https://doi.org/10.1177/1096348005284269> (Retrieve 29 September 2021)
- Doern, R.; Williams, N.; Vorley, T. 2019. Special issue on entrepreneurship and crises: Business as usual? An introduction and review of the literature. *Entrep. Reg. Dev.* **2019**, 31, 400–412. (Retrieve 29 September 2021)

- Edwards, M.; Sánchez-Ruiz, L.M.; Tovar-Caro, E.; Ballester-Sarrias, E. 2009. Engineering students' perceptions of innovation and entrepreneurship competences. In Proceedings of the 2009 39th IEEE Frontiers in Education Conference, San Antonio, TX, USA,; pp. 1–5. (Retrieve 29 September 2021)
- Elnadi, M.; Gheith, M.H.; Farag, T. 2020. How does the perception of entrepreneurial ecosystem affect entrepreneurial intention among university students in Saudi Arabia? *Int. J. Entrep.* 24, 1–15. (Retrieve 29 September 2021)
- Esfandiar, K.; Sharifi-Tehrani, M.; Pratt, S.; Altinay, L. 2019. entrepreneurial intentions: A developed integrated structural model approach. *J. Bus. Res.* 94, 172–182.
- Etzkowitz, H.; Webster, A.; Gebhardt, C.; Terra, B.R.C. 2000. The future of the university and the university of the future: Evolution of ivory tower to entrepreneurial paradigm. *Res. Policy* , 29.
- Farinha, L.; Lopes, J.; Bagchi-Sen, S.; Oliveira, J.; Sebastiao, J.R. 2020. Entrepreneurial dynamics and government policies to boost entrepreneurship performance. *Soc. Econ. Plan. Sci.*, 72, 100950.
- Farooq, M.S.; Salam, M.; Rehman, S.U.; Fayolle, A.; Jaafar, N.; Ayupp, K. 2018. Impact of support from social network on entrepreneurial intention of fresh business graduates: A structural equation modelling approach. *Educ. Train.* 60, 335–353. (Retrieve 29 September 2021)
- Fayolle, A.; Verzat, C.; 2016. Wapshott, R. In quest of legitimacy: The theoretical and methodological foundations of entrepreneurship education research. *Int. Small Bus. J. Res. Entrep.*, 34, 895–904.
- Fernández-Serrano, J.; Martínez-Román, J.A.; Romero, I. 2019. The entrepreneur in the regional innovation system. A comparative study for high- and low-income regions. *Entrep. Reg. Dev.* , 31, 337–356.
- Gelderen, M. Van, Brand, M., Praag, M. Van, Bodewes, W., & Gils, A. Van. 2008. *Theory Of Planned Behaviour Explaining Entrepreneurial Intentions By Means Of The Theory Of Planned Behaviour.* *Career Development International*, 13(6), 538–559. <https://doi.org/10.1108/13620430810901688> (Retrieve 29 September 2021)
- Gómez-Salgado, J.; Andrés-Villas, M.; Domínguez-Salas, S.; Díaz-Milanés, D.; Ruiz-Frutos, C. 2020. Related health factors of psychological distress during the COVID-19 pandemic in Spain. *Int. J. Environ. Res. Public Health*, 17, 3947. [CrossRef] [PubMed]
- Grimsley, S. 2016. What is sustainable economic growth? definition & overview. Available at: <http://study.com/academy/lesson/what-issustainable-economic-growth-definition-lesson-quiz.html> (Retrieve, 29 September 2021)
- Gusman, H. 2020, Bagaimana Pandemi Covid-19 Memengaruhi Angka pengangguran. <https://tirto.id/bagaimana-pandemi-covid-19-memengaruhi-angka-pengangguran-ri-fK3e> (Retrieve, 29 September 2021)
- Han, H., Hsu, L.T.J., Sheu, C. 2010. Application of the theory of planned behavior to green hotel choice: testing the effect of environmental friendly activities. *Tourism Management*, 31(3), 325–334. <https://doi.org/doi.org/10.1016/j.tourman.2009.03.013> (Retrieve 29 September 2021)
- Hernández-Sánchez, B.R.; Cardella, G.M.; Sánchez-García, J.C. 2020. Psychological factors that lessen the impact of covid-19 on the self-employment intention of business administration and economics' students from Latin America. *Int. J. Environ. Res. Public Health*, 17, 5293. (Retrieve, 29 September 2021)
- Heyl, M., Díaz, E. M., & Cifuentes, L. 2013. Environmental attitudes and behaviors of college students: A case study conducted at a Chilean university. *Revista Latinoamericana de Psicología*, 45(3), 487. <https://doi.org/10.14349/rlp.v45i3.1489> (Retrieve, 29 September 2021)

- Hlady-Rispal, M.; Jouison-Laffitte, 2014. E. Qualitative research methods and epistemological frameworks: A review of publication trends in entrepreneurship. *J. Small Bus. Manag.*, 52, 594–614. <https://ur.booksc.eu/book/33612176/112578> (Retrieve, 29 September 2021)
[https://doi.org/doi.org/10.1016/0749-5978\(91\)90020-T](https://doi.org/doi.org/10.1016/0749-5978(91)90020-T) (Retrieve, 29 September 2021)
- Kautonen, T.; van Gelderen, M.; Fink, M. 2015. Robustness of the theory of planned behavior in predicting entrepreneurial intentions and actions. *Entrep. Theory Pract.* , 39, 655–674. [CrossRef]
- Kore. I.C & Prajogo.W. 2020. Kreativitas dan Niat Berwirausaha ditinjau dari Theory of Planned Behavior. *Jurnal Bisnis, Teori dan Implementasi*. Vol. 11 (2) . 118-133 (Diakses 29 September 2021)
- Kurnia, D., Kusnendi, K., & Furqon, Ch. 2018. Pengaruh Pengetahuan Kewirausahaan Dan Efikasi Diri Terhadap Minat Wirausaha. *Jurnal Promosi*, 6(2), 48–56. (Retrieve 29 September 2021)
- Lam, A. 2010. From ‘ivory tower traditionalists’ to ‘entrepreneurial scientists’?: Academic scientists in fuzzy university-industry boundaries. *Soc. Stud. Sci.*, 40, 307–340. (Retrieve, 29 September 2021)
- Liñán, Francisco & Chen, Yi-Wen. 2009. Development and Cross-Cultural Application of A Specific Instrument to Measure Entrepreneurial Intentions. *Entrepreneurship Theory and Practice*. 33. 593 - 617. <https://core.ac.uk/download/pdf/13283138.pdf> (Retrieve, 29 September 2021)
- Lopes, J.; Farinha, L.; Ferreira, J.; Ferreira, F. 2018. Peeking beyond the wall: Analysing university technology transfer and commercialization processes. *Int. J. Technol. Manag.* , 78, 107–132.
- Lopes, J.; Ferreira, J.J.; Farinha, L.; Raposo, M.2020. Emerging Perspectives on Regional Academic Entrepreneurship. *High. Educ. Policy* , 33, 367–395.
- Lopes, J.; Teixeira Sergio, J.; Ferreira João, J.M.; Silveira, P.; Farinha, L.; Lussuamo, J. 2020. University entrepreneurial intentions: Mainland and insular regions—Are they different? *Educ. Train.* 62, 81–99. (Retrieve, 29 September 2021)
- Lopes, J, et. al . 2021. Entrepreneurial Intention Before and During COVID-19- A Case Study on Portuguese University Students. *Education Sciences*, 11, 2-17 <https://www.mdpi.com/2227-7102/11/6/273> (Retrieve, 29 September 2021)
- Mahase, E. 2020. Covid-19: Trump threatens to stop funding WHO amid “China-centric” claims. *BMJ* , 369
- Maula, M.; Stam, W.2020. Enhancing Rigor in Quantitative Entrepreneurship Research. *Entrep. Theory Pract.* , 44, 1059–1090. https://acris.aalto.fi/ws/portalfiles/portal/56827500/Maula_Enhancing.1042258719891388. (Retrieve, 29 September 2021)
- McGregor, J.A.; Pouw, N. 2016. Towards an economics of well-being. *Camb. J. Econ.* 41, 1123–1142.
- Ngek Neneh, B. 2019 . From entrepreneurial intentions to behavior: The role of anticipated regret and proactive personality. *Journal of Vocational Behavior*, 112, 311–324. <https://doi.org/10.1016/j.jvb.2019.04.005> (Retrieve, 29 September 2021)
- O’Kane, C.; Mangematin, V.; Zhang, J.A.; Cunningham, J.A. 2020. How university-based principal investigators shape a hybrid role identity. *Technol. Forecast. Soc. Chang.*,159. [CrossRef]
- Octício, T.A.A. 2012. Entrepreneurial Intentions and Behavior among University students. *Case Inst. Super. Tec. Tec. Lisbon* (Retrieve, 29 September 2021)
- Praag, C.M.V.; Ophem, H.V. Determinants of Willingness and Opportunity to Start as an Entrepreneur. *Kyklos* 1995, 48, 513–540. [CrossRef]
- Prihatin, B., Riyanti, D., Sandroto, C. W., & W, M. T. W. D. 2016. *Soft Skill Competencies , Hard Skill Competencies , and Intention to Become Entrepreneur of Vocational Graduates. International Research Journal of Business Studies*, 9(2), 119–132. (Retrieve, 29 September 2021)

- Purba, Y. A., & Aini, Y. N. 2020. Nasib Angkatan Kerja Muda di Tengah Hantaman COVID-19. Retrieved from [kependudukan.lipi.go.id:https://kependudukan.lipi.go.id/id/berita/53mencatatcovid19/1010-nasib-angkatan-kerja-muda-di-tengah-hantaman-covid-19](https://kependudukan.lipi.go.id/kependudukan.lipi.go.id:https://kependudukan.lipi.go.id/id/berita/53mencatatcovid19/1010-nasib-angkatan-kerja-muda-di-tengah-hantaman-covid-19) (Retrieve, 29 September 2021)
- Ruiz-Rosa, I.; Gutiérrez-Taño, D.; García-Rodríguez, F.J. 2020. Social entrepreneurial intention and the impact of COVID-19 pandemic: A structural model. *Sustainability* , 12, 6970.
- Sánchez Ruiz, L.M.; Moll-López, S.; Morano-Fernández, J.A.; Llobregat-Gómez, N. B-2021. Learning and Technology: Enablers for University Education Resilience. An Experience Case under COVID-19 in Spain. *Sustainability* , 13, 3532. [CrossRef]
- Schumpeter, J., 1911. *The theory of economic development*”, Cambridge, MA: Harvard University Press. (Revised, editions in 1961) (Retrieve, 29 September 2021)
- Shirokova, G., Osiyevskyy, O., & Bogatyreva, K. 2016. Exploring the intention–behavior link in student entrepreneurship: Moderating effects of individual and environmental characteristics. *European Management Journal*, 34 (4), 386–399. <https://doi.org/10.1016/j.emj.2015.12.007> (Retrieve, 29 September 2021)
- Siegel, D.S.; Wright, M. 2015. Academic Entrepreneurship: Time for a Rethink? *Br. J. Manag.* 26, 582–595.
- Wang, C.; Pan, R.; Wan, X.; Tan, Y.; Xu, L.; Ho, C.S.; Ho, R.C. 2020. Immediate psychological responses and associated factors during the initial stage of the 2019 coronavirus disease (COVID-19) epidemic among the general population in China. *Int. J. Environ. Res. Public Health*, 17, 1729.
- Wang, M.; Soetanto, D.; Cai, J.; Munir, H. 2021. Scientist or Entrepreneur? Identity centrality, university entrepreneurial mission, and academic entrepreneurial intention. *J. Technol. Transf.*
- Widyaningrum, E. 2020. Pengaruh Efikasi Diri dan Lingkungan Keluarga Terhadap Minat Kewirausahaan Siswa SMK di Masa Pandemi COVID-19. *Jurnal Ekonomi dan Manajemen*. Vo. 2 (2). P. 1-9. <https://ejournals.umma.ac.id/index.php/point>. (Retrieve, 29 September 2021)
- Wright, M.; Clarysse, B.; Lockett, A.; Knockaert, M. 2008. Mid-range universities’ linkages with industry: Knowledge types and the role of intermediaries. *Res. Policy*, 37, 1205–1223.
- Zhao, Z.; Broström, A.; Cai, J. 2020. Promoting academic engagement: University context and individual characteristics. *J. Technol. Transf.* 45, 304–337.
- https://www.researchgate.net/publication/348648495_Nasib_Angkatan_Kerja_Muda_di_Tengah_Hantaman_COVID-19_-_Pusat_Penelitian_Kependudukan_LIPI_Pusat_Penelitian_Kependudukan_LIPI/link/6009063692851c13fe26bdeb/download (Retrieve, 29 September 2021)