

FULL PAPER TEMPLATE
12th ISCA 2021

EFFECTIVENESS OF BUSINESS SUSTAINABILITY TRAINING
FOR *STARTUP* IN BANYUMAS

Dian Purnomo Jati¹, Sulyanto^{2*}, Weni Novandari³

¹ Universitas Jenderal Soedirman, dyan_pj@yahoo.com, Indonesia

^{2*} Universitas Jenderal Soedirman, suli_yanto@yahoo.com, Indonesia

³ Universitas Jenderal Soedirman, weni_novandari@yahoo.co.id, Indonesia

*suli_yanto@yahoo.com

ABSTRACT

The purpose of this study was to determine the effectiveness of business sustainability model training in *startups* in Banyumas Regency. The subjects of this study were 15 *startups* in Purwokerto. The research was conducted using an experimental method by providing training treatment. The analytical tool used is the average difference test of the paired sample. Based on the results of the analysis, there is an increase in the ability to run a start-up business, both measured by using objective measurements and using subjective measurements.

Keywords: Entrepreneurship Training, *Startup*, Effectiveness, Business Sustainability

1. Introduction

The 4.0 industrial revolution was marked by the increasing use of the internet (Lasi *et al.*, 2014) or Cyber-Physical System (Lee *et al.*, 2014) in all areas especially in business. The industrial revolution had an impact on changing the business model from owning system to sharing system. On the one hand, this revolution provided a great opportunity for business people who were able to make changes to the environment (Zhou, 2015), but on the other hand it could pose a threat to business people who were unable to make changes to adapt to environmental changes.

One of the business that implement the sharing system is startups. Start-ups are newly established companies and are in the development and research phase to find the right market and are generally related to digital technology. Small business (start-ups) in Indonesia have a very high chance of developing because they are supported by various factors, namely: the number of internet users reaching 132.7 million, social media active users reaching 130 million and social media users using smartphones reaching 120 million. Of the total internet users 24.2% or 32.12 million people use the internet to carry out online transactions and 84.2 million have made online transactions. In the last ten years, the e-commerce industry in Indonesia has also experienced a very large growth of around 17% with its total business unit reaching 26.2 million (BPS, 2016).

In the last 10 years, startups have made tremendous progress. The existence of startups can promote the growth of creative industries such as crafts, culinary, performing arts, property, etc. The creative industry in Indonesia also has a very high potential for growth, this is because there are three reasons: more energy-efficient because it is more based on creativity, less use of natural resources, and more promise for high profits. The above three factors are also supported by the availability of abundant human resources. The population of Indonesia is around 230 million. The population aged 15–29 is 40.2 million or nearly 18.4% of the market for creative industrial products.

In 2018 the number of startups in Indonesia has reached 992 but 522 of them are located in the Jabotodabek area. Although the number of startups is growing very fast, the business continuity is still very low, where 90% of startups are not successful in maintaining their business continuity. Patel on Forbes.com stated that out of the 10 digital startups that were successfully formed, nine of them would have failed. That is, there is a 90% chance that a startup (startup) will fail, so there is only one business that can succeed, survive, grow, and continue its business. Failure initially exists at the point of the first 120-day (Patel, 2015) in (Hardiansyah & Tricahyono, 2019). The high rate of failure of startups is unfortunate, because the existence of startups will be able to provide a very large multiplier effect to the economy, especially in the absorption of manpower in the creative industry sector and local resource optimization.

Banyumas Regency is one of the regions that generate many startups, as Banyumas Regency has many universities namely: 6 universitas, 7 high schools, 7 academies and 2 polytechnics. This is because students and college graduates are community groups that drive startups. Data from Innocircle 2019 stated that there are about 13 startups in Banyumas Regency, 10 of which are not doing well, this shows that the sustainability of startups is still very low. Businesses to improve business continuity for startups are also experiencing difficulties because there is no data on the profile of startups or the problems of individual startups as a basis for formulating measures to improve business continuity, besides there is no right model yet.

Therefore, effective training is required. The effectiveness of training can be measured by increased knowledge and skills about how to pioneer a business and how to maintain it. Therefore, there is a need for research aimed at analyzing the effectiveness of business continuity training on startups in Banyumas Regency. This research is useful as a basis for improving the effectiveness of training programs for startups, so that they can formulate appropriate strategies to improve the sustainability of startups.

2. Literature Review

2.1 Small Business (Startup)

Startup is a company today that aims to formulate a sustainable and profitable business model (Viki *et al.*, 2018). Arjanti & Mosal (2012) defines startups as new or being pioneered that generally have high production costs, which are young and generally still require many R&D (research and development) processes to understand market conditions and find the right target consumer. Startup businesses have high risk, but also have very attractive business potential. Startup is a company that aims to continue to grow and involve (Patel, 2015) in Hardiansyah & Tricahyono (2019). Startup is a company formed to develop new products that are in a state of

uncertainty that is difficult to model and have high risk (Rip, 2014) in Hardiansyah & Tricahyono (2019).

The failure of a business can come in many forms. From projects to unsuccessful implementation of ideas, the company's business failed. Hardiansyah & Tricahyono (2019), stated that the opportunity for startups to grow globally and domestically is not in line with the success rate of startups. A small business (startup) can be said to fail if it is unable to grow and make a profit. Therefore, as business people we need to know what is the problem of consumers and how to be a solution to that problem.

In the event of failure, we need to move on to develop innovative new ideas. Viki *et al.*, (2018), stated that innovation can be created by creating new products or services that have value to consumers and in a way that is supported by a sustainable business model and can provide benefits. Utoyo (2016), stated that startup businesses should be able to prove that their products are acceptable in the global market. Seen from the market side, Indonesia is clearly a target targeted by various digital innovations in regional areas along with its large population. However, another thing to see is that the development of startups in Indonesia has many obstacles. From human resources constraints, capital, management, to infrastructure. This can determine the success of a startup.

Utoyo (2016) stated that there are 8 challenges that start-up businesses need to face: first talent and development, second infrastructure, human recourses and facilities, third promotion and marketing, fourth funding, fifth capital gain tax, sixth research and development incentive (R&D), seventh intellectual property and patent rights, eighth registration the start-up companies. The startup Genome Project in Arjanti & Mosal (2012) stated that there are four stages through which a small business (startup) goes through: discovery, validation, efficiency, and scaling. These four steps determine whether or not a startup can continue.

2.2 Business Sustainability

Based on Elkington (1998), business continuity is a must-see strategy for the new millennium. According to Indarti & Langenberg (2004), there are several factors that can affect UMKM's success: individual background, business characteristics, and contextual variables. Business continuity is a condition in which the company's funds and capital have been fulfilled to carry out operational activities so that businesses have become more developed (Puspitaningtyas, 2017) in (Ardila *et al.*, 2021).

A startup business can be said to be successful when it is able to formulate the right model for the startup business (Ries, 2011). Some studies have suggested that an organization's effectiveness or success is measured based on its financial and human resources (Lanao *et al.*, 2007). Thang and Buyens (2008), in their research, stated that there was a positive interaction between training, organizational strategy, and corporate performance.

3. Research Methodology

This study is an experimental study with the research subjects being 15 startups in Banyumas Regency. The treatment given is by providing training. The source determination technique used

in this study is purposive sampling, i.e. selecting startup entrepreneurs who experience problems related to their business continuity. The data analysis technique used in this study is t-Test: Paired Two Sample for Means to analyze the differences in the level of knowledge of participants before and after attending training measured by objective approach and subjective approach.

4. Results and Discussion

According to the data in table 1 it shows that the majority of respondents were women. The majority of respondents were less than 25 years old. The business continuity of the participants has yet to be said to be good, because the average age of businesses that have run is less than 1 year. The majority of UMKM operators are in the field of digital creative and food businesses. Judging from the level of education, the majority of respondents are in the higher education level and high school level, this indicates that to build startups requires minimal education qualifications in the high school education level.

Table 1. Participants Profile

Respondent Profile	Information	Total	Percentage
Gender	Male	6	40%
	Female	9	60%
	Total	15	100%
Age	< 25 years old	14	93%
	> 26 years old	1	7%
	Total	15	100%
Age of Business	≤ 1 Tahun	13	87%
	≥ 1-3 Tahun	2	13%
	Total	15	100%
Business Type	Digital Creative	3	20%
	Food	2	13%
	Other	10	67%
	Total	15	100%
Education	High School	6	40%
	Bachelor	8	53%
	Postgraduate	1	7%
	Total	15	100%

Evaluation of training conducted includes evaluation of entrepreneurial knowledge before and after training using an objective and subjective approach. Objectively measuring is done by providing a problem to measure participants' abilities about startup business management. The results of the Pre-Test and Post Test scores of 15 trainees with objective measurements are as follows:

Table 2. Pre-Test and Post Test Evaluation Results Using an Objective Approach

No Respondent	Total of Correct Answer	
	Pre Test	Post Test
1	50	70
2	60	60

3	60	70
4	50	50
5	80	80
6	70	70
7	40	80
8	40	70
9	60	60
10	40	60
11	80	80
12	70	70
13	30	60
14	50	50
15	30	60
Average	54	66

According to table 2 above, post-test results improved by 11.11% after taking the training using an objective approach. This can be seen from the results of a higher number of post-test scores than the results of the tests. To see the effectiveness of business continuity training, a t-Test was conducted between the results of the pre-test and post-test scores.

Table 3. The Results of the t-Test of Knowledge Perception with Objective Approach

	Before	After
Mean	66	54
Variance	97,143	268,571
Observations	15	15
Pearson Correlation	0,459	
Hypothesized Mean Difference	0	
Df	14	
t Stat	3,154	
P(T<=t) one-tail	0,004	
t Critical one-tail	1,761	
P(T<=t) two-tail	0,007	
t Critical two-tail	2,145	

Based on the observation results of 15 startups in Banyumas Regency, the analysis results obtained by using t-Tests obtained a t-Stat (3,15) greater than the t-table (1,76) with the value of $p=0.00$ increase in participants' knowledge after participating in the training of business sustainability model for startups is received.

In addition to doing objective measurement this research also uses subjective measurements. subjectively conducted by providing a questionnaire to measure participants' perceptions of ability to manage startup business management. Measurements using Likert 5 scale. The selection of the Likert scale is simple and easy to understand (Suliyanto, 2011).

The results of the Pre-Test and Post Test scores of 15 trainees with subjective measurements are as follows:

Table 4. Pre-Test and Post Test Evaluation Results Using a Subjective Approach

Ability	Value Results	
	Pre Test	Post Test
Ide Validation	3,47	3,93
Forming a Business Team	3,40	3,93
Finding a Business Model	3,27	4,07
Calculating Pricing	3,33	3,87
Creating a Business Budget	3,20	3,73
Creating Financial Projections	3,07	3,93
Creating Financial Report	3,00	3,87
Calculating and Reporting Taxes	2,73	3,60
Doing Market Research	3,40	4,00
Getting Transactions	3,07	4,00
Selling Products	3,40	4,13
Doing Pitching	3,27	4,07
Delivering Pitching	3,00	4,00
Creating and Presenting Pitching	3,27	4,20
Average	3,21	3,95

According to the table above, post-test results improved by 18.73% after taking the training using the Subjective approach. This can be seen from the results of a higher number of post-test scores than the results of the tests. To see the effectiveness of business continuity training, a t-Test was conducted between the results of the pre-test and post-test scores.

Table 5. The Results of the t-Test of Knowledge Perception with Subjective Approach

	Setelah	Sebelum
Mean	3,952	3,205
Variance	0,024	0,043
Observations	14,000	14,000
Pearson Correlation	0,539	
Hypothesized Mean Difference	0,000	
Df	13,000	
t Stat	15,575	
P(T<=t) one-tail	0,000	
t Critical one-tail	1,771	
P(T<=t) two-tail	0,000	
t Critical two-tail	2,160	

Based on the observation results of 15 startups in Banyumas Regency, the analysis results obtained by using t-Tests obtained a t-Stat (15,57) greater than the t-table (1,77) with the value of $p=4.34$ increase in participants' knowledge after participating in the training of business sustainability model for startups is received.

5. Conclusion

Based on the results of the analysis and discussions related to the effectiveness of business sustainability training on startups in Banyumas Regency, there is an increase in the ability to run startups both measured using objective measurements and using subjective measurements. There are several limitations in this study, namely the level limitations in controlling participants' knowledge which of course have different perceptions. Recommendations for further research: it is expected to continue training with the model with an expanded range of participants and given material.

References

Journal article

- Ardila, I., Febriaty, H., & Astuti, R. (2021). Strategi Literasi Keuangan Sebagai Faktor Pendukung Keberlanjutan Usaha Mikro Kecil dan Menengah. *EKONOMIKAWAN: Jurnal Ilmu Ekonomi dan Studi Pembangunan*, 201-210.
- Hardiansyah & Tricahyono. (2019). Identifikasi Faktor-Faktor Kesuksesan Start Up Digital di Kota Bandung. *Jurnal Ekonomi*. JE-Vol.27-No.2-2019-pp.134-145.
- Indarti, N., & Langenberg, M. (2004). Factors Affecting Business Success Among SMEs: Empirical evidence from Indonesia. Researchgate.
- Lanao, J. E., Foster, C., Seiler, S & Lucia, A. 2007. Impact of Training Intensity Distribution on Performance. *Journal of Condition Research*. Vol. 21, No. 3, pp: 943-949.
- Lasi, H., Fettke, P., Kemper, H. G., Feld, T., & Hoffmann, M. (2014). Industry 4.0. *Business & Information Systems Engineering*, 6(4), 239-242.

Lee, J., Kao, H. A., & Yang, S. (2014). Service innovation and smart analytics for industry 4.0 and big data environment. *Procedia Cirp*, 16, 3-8.

Suliyanto, S. (2011, May). Perbedaan Pandangan Skala likert sebagai Skala Ordinal atau skala Interval. In *Prosiding Seminar Nasional Statistika Universitas Diponegoro 2011* (pp. 51-60). Program Studi Statistika FMIPA Undip.

Thang, N. N., & Buyens, D. (2008). Training, organizational strategy, and firm performance. *Faculteit Economie en Bedrijfskunde, Univ. Gent*.

A book

Arjanti, R. A., & Mosal, R. L. (2012). *STARTUP, INDONESIA! Inspirasi & Pelajaran dari Para Pendiri Bisnis Digital*. Jakarta: Kompas Media Nusantara.

Elkington, J. (1997). *Cannibals with Forks, The Triple Bottom Line of Twentieth Century Business*. Capstone: Oxford.

Ries, E. (2011). *The lean startup: how today's entrepreneurs use continuous innovation to create radically successful businesses*. New York : Fletcher & Company.

Utoyo, I. (2016). *Silicon Valley Mindset: Membangun Ekosistem Startup Digital Indonesia*. Jakarta: Gramedia Pustaka Utama.

Viki, T., Toma, D., & Gons, E. (2018). *THE CORPORATE STARTUP: Formula sukses perusahaan mapan mengembangkan ekosistem inovasi*. Jakarta: Elex Media Komputindo.

Zhou, K., Liu, T., & Zhou, L. (2015, August). *Industry 4.0: Towards future industrial opportunities and challenges*. In *Fuzzy Systems and Knowledge Discovery (FSKD), 2015 12th International Conference on* (pp. 2147-2152). IEEE.