

RELATIONSHIP BETWEEN EDUCATIONAL ASPECTS AND ECONOMIC VULNERABILITY OF SMALL AND MEDIUM-SIZED ENTERPRISES (SMEs) FOR ENVIRONMENTAL SOCIAL DISASTERS IN BANDA ACEH

Parmakope¹, Agussabti², Nizamuddin³

¹Study Program Master of Disaster Science, Universitas Syiah Kuala

²Faculty of Agriculture, Universitas Syiah Kuala

³Faculty of Mathematics and Natural Sciences, Universitas Syiah Kuala

Email: ¹parma.kope@gmail.com, ²agussabti@unsyiah.ac.id, ³niz4muddin@unsyiah.ac.id

Abstract

Social environmental disasters such as natural disasters are events that have a negative impact on people's lives. The coronavirus pandemic disease (Covid-19) is one of them. The effect of Covid-19 has given society to lose its material and non-material properties. Banda Aceh City is one of the affected areas due to the distribution of COVID-19. The economic sector is one of the sectors most affected by the Covid-19 pandemic. Micro, Small and Medium Enterprises (SMEs) have survived and saved the Indonesian economy even during the monetary crisis in 1998. Even so, MSMEs have experienced difficulties facing the Covid-19 pandemic. Based on data from 1,785 cooperatives and 163,713 MSMEs affected by the Corona virus pandemic (COVID-19). Most of the MSMEs affected by COVID-19 are involved in primary needs, such as food and drink. The Banda Aceh City Government issued a social distancing policy to reduce the distribution and spread of COVID-19. However, this research tries to look at what factors, levels, and strategies affect the economic vulnerability of MSMEs during the Covid -19 pandemic period. In the end, economic vulnerability in socio-environmental disasters has been analyzed in relation to educational aspects.

Keywords: *Environment, Social Disaster, MSME, Social Vulnerability, Covid-19*

1. INTRODUCTION

The effects of a disaster event are effects on society, the environment, geology, social vulnerability, economic vulnerability, psychological effects and inadequate response capacity (Chmutina and von Meding, 2019; UNODRR, 2020). These events involve natural and social processes that affect society according to the patterns of interaction between disaster events and social organizations (Ribeiro et al., 2021). Environmental disasters such as disease cycles will also result in major economic losses and negatively affect the provision of essential services.

The Corona Virus Disease (Covid-19) pandemic crisis is a social disaster in the form of a virus that attacks humans and animals (WHO, 2020). The Covid-19 pandemic has infected more than 300 million people within 24 months (Moosazadeh, 2022), of which 5.5 million died from 224 countries as of January 2022 (JHU, 2022). The consequences of Covid-19 have also had an impact on the world economy, where the global Gross Domestic Product (GDP) has fallen by 3.5% in 2020 (IMF, 2021), and has had an impact on the tourism sector (Al-Fadly, 2020) with losses for the tourism sector more of \$4 trillion during 2020 and 2021 (UNCTAD, 2021). The difficulty of detecting this disease and its easy transmission, the Banda Aceh City Government through the Task Force Team for Mitigating and Accelerating the Handling of the Spread of Covid-19 implements special rules, namely social distancing to avoid crowds and crowds and to stay at home on the basis of Law Number 6 of 2018 concerning Health Quarantine (UUKK). Distancing restrictions, large-scale social restrictions (PSBB), lockdowns or similar programs, have been observed to significantly reduce the rate of spread of the virus (Atalan, 2020; Xiao, 2020).

In principle, Covid-19 is transmitted from human to human based on inhalation (Acter et al., 2020) such as coughing or sneezing, so the environment plays a large role in the distribution of the spread of this virus (Cássaro and Pires, 2020). However, the impact of the pandemic affects all sectors of human life, such as trade and other economic activities (Thorik, 2020), including Micro,

RELATIONSHIP BETWEEN EDUCATIONAL ASPECTS AND ECONOMIC VULNERABILITY OF SMALL AND MEDIUM-SIZED ENTERPRISES (SMEs) FOR ENVIRONMENTAL SOCIAL DISASTERS IN BANDA ACEH

Parmakope, Agussabti, Nizamuddin

Small and Medium Enterprises (MSMEs). Even though MSMEs are the basic foundation of the Indonesian economy (Irjayanti and Azis, 2012), where according to the Asian Development Bank (ADB) MSMEs in Indonesia are the largest in the world (Fahma, Zakaria and Gumilang, 2018) and contribute 50% of Gross Domestic Tax (Irjayanti and Azis, 2012; Fahma et al., 2018). Most of the cooperatives affected by COVID-19 are engaged in daily necessities,

The Ministry of Cooperatives and SMEs said that cooperatives engaged in services and production were also the most affected by the COVID-19 pandemic. MSMEs managers feel decreased sales, lack of capital, and hampered distribution (Caballero-Morales, 2021; Pedauga et al., 2022). Meanwhile, the MSME sector that was shaken during the COVID-19 pandemic apart from food and beverages, was also the creative and agricultural industries. In tackling the problems faced by MSME actors, the government is implementing several efforts. One of them is to include MSME actors and cooperatives as recipients of government assistance programs, such as Pre-Employment Cards, subsidized electricity rates, and Family Hope. The government also provides tax relief for six months, from April 2020 to September 2020.

Even though the COVID-19 pandemic has created several problems for MSME and cooperative actors, on the other hand there have also been opportunities. MSMEs and cooperatives can take advantage of information and communication technology, considering that electronic trade in 2020 will reach US\$ 130 billion. Electronic commerce transactions have dramatically increased during the COVID-19 pandemic. Products that experienced an increase in sales included health products which increased 90%, hobby support products which increased 70%, food increased 350%, and herbal food increased 200%.

This study analyzes the factors that affect the level of economic vulnerability of MSME actors based on the dynamics of business actors, financial status and strategies implemented in dealing with Covid-19. The final stage is to analyze the relationship between economic vulnerability based on the educational aspects of MSME actors. Based on this, the formulation of a strategy to increase the resilience of MSME actors in the Banda Aceh City area will be recommended.

2. IMPLEMENTATION METHOD

Data, location and data collection techniques

This research uses concurrent mixed methods (Koskey and Stewart, 2014; Lim et al., 2019). This method combines two forms of research that have existed before, namely qualitative research and quantitative research. The data used in this study is primary data through interviews with MSME actors and stakeholders in the Banda Aceh City area which is included in the Central Business District (CBD) area. The CBD area is an urban management and development area (Yu et al., 2015). The CBD area in Banda Aceh City is in the Jaya Baru District, Meuraxa District, Baiturrahman District, Kuta Raja District, Kuta Alam District, Syiah Kuala District, Banda Raya District, Ulee Kareng District and Lueng Bata District (see Figure 1).

Collecting interview data through passive participatory observation (Lutz and Hoffmann, 2017) through questionnaire media by directly visiting the activities of MSME actors (Cetinkaya et al., 2017). Questionnaire media will provide factual data or opinions in a question or statement related to the respondent (Nugroho, 2018). The questions in the questionnaire will be arranged on a scale of 1-5 based on the Linkert scale (Pranatawijaya et al., 2019).

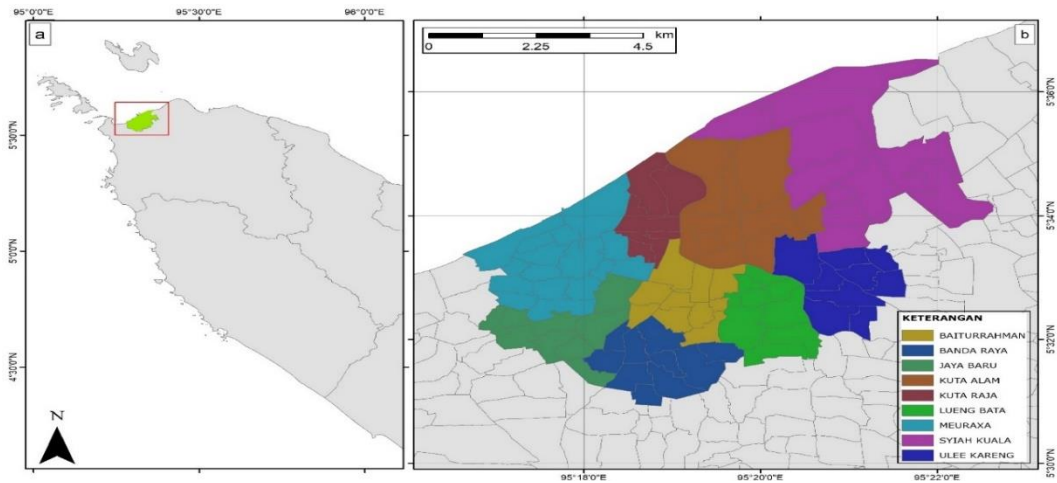


Image 1. Research sites. (a) Aceh Province, the location of Banda Aceh City is marked by a red box (b). location of sampling of SMEs

Population, Sample, and Sampling Technique

The population in this study are MSME actors assisted by the Department of Trade, Cooperatives and UKM engaged in various trade sectors and doing business in the city of Banda Aceh. Based on the data, the total population of this study is at least around 1000 business actors. Meanwhile, the sample in this study was a small part of the population, which was taken based on purposive sampling (Etikan and Kabiru, 2017). The sampling technique in this study was carried out based on slovin calculations in equation 1 (Milton and Ohira, 2021).

$$n = \frac{N}{N(d^2) + 1} \quad (1)$$

Where, N is the number of population, d is the value of 95% precision or sig. = 0.05. Based on the calculations in equation 1, it is obtained that n is 285.7 so that it is rounded up to 300 samples (see Table 1). The larger the number of samples (closer to the population), the smaller the chance of generalization errors, and vice versa.

Table 1. Distribution of the number of samples used in this study based on Origin District

No	Subdistrict	Number of MSMEs
1	Baiturrahman	33
2	Banda Raya	18
3	Jaya Baru	22
4	Kuta Alam	49
5	Kuta Raja	7
6	Lueng Bata	16
7	Meuraxa	72
8	Shia Kuala	29
9	Ulee Kareng	28
10	The Banda Aceh-around Aceh Besar border	26
	Amount	300

The final stage of this research is to explain the causal relationship between the research variables and the test hypothesis. The data analysis technique uses Structural Equation Modeling (SEM) based on Part Least Square through SMARTPLS (Hansmann and Ringle, 2004) such as studies conducted by Bido and Da Silva, (2019) and Nasution et al, (2020).

RELATIONSHIP BETWEEN EDUCATIONAL ASPECTS AND ECONOMIC VULNERABILITY OF SMALL AND MEDIUM-SIZED ENTERPRISES (SMEs) FOR ENVIRONMENTAL SOCIAL DISASTERS IN BANDA ACEH

Parmakope, Agussabti, Nizamuddin

3. RESULTS AND DISCUSSION

Business dynamics

The dynamics of MSME business actors in this study displays business background, age of business actors, gender of business actors, education level, length of business, business classification, business form. Based on the results of data collection shown in Figure 2, the majority of MSME business actors aim to earn additional income (288), realize innovative business ideas (265), and become entrepreneurs and are not tied to other people (258). Even so, some MSME business actors, because the income of entrepreneurs is greater than office employees (74), continue the family business (47) and do not get other jobs (152). simultaneously and partially, positive and significant influence between entrepreneurship education, entrepreneurial motivation and family environment. These factors will greatly influence mental attitudes and plans to start entrepreneurship (Prihantoro and Hadi, 2016). However, MSME actors will create jobs, productive and innovative entrepreneurship in dealing with crises (Sutanto and Nurrachman, 2018). The large number of entrepreneurs in developing countries is directly proportional to economic progress and will create very high employment rates (Decker et al., 2014).

The average age of MSME actors from this study is middle age and young entrepreneurs with 43% and 38% respectively. The rest are old and elderly offenders (9%), only 1% are teenagers. Meanwhile, 77% of MSME actors are women and 23% are men. Age is not a parameter in determining business development, but gender, clear goals in entrepreneurship, and experience will influence the growth of MSMEs (Neville et al., 2014). In running a business, women will face extra obstacles such as family responsibilities and stereotypes in society (Sharafizad and Coetzer, 2016). Constraints for female MSME actors include legitimacy from policy makers (Fielden et al., 2003), especially in industries dominated by men (Tonge, 2008). Negative social conditions in the community experienced by female business actors are not experienced by male business actors (Hadary, 2010). Although in this study the majority were women, sales records were stable and increasing. However, this condition still views women as unable to develop their businesses (Hadary, 2010). Women must be proactive in making relations, interacting inside and outside their business, and must actively participate in business networks (Weber, 2007; Sharafizad and Coetzer, 2016).

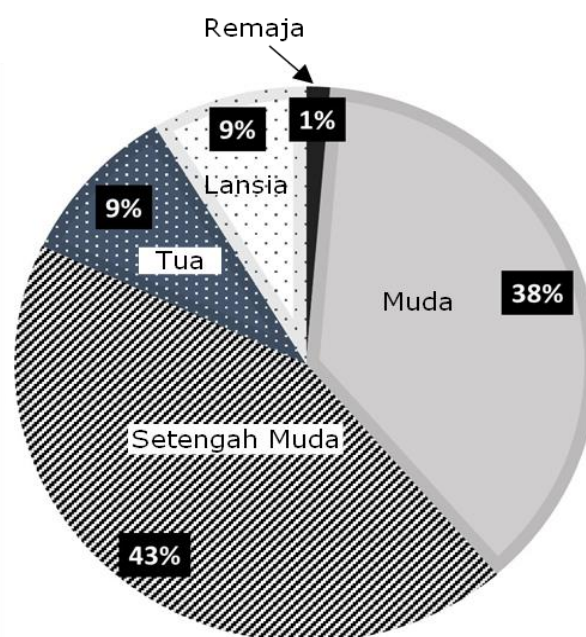


Figure 2. Age Entrepreneurs

Group of

Based on Figure 3, MSME actors in Banda Aceh are distinguished based on the period in which the business was founded. The majority of MSMEs in Banda Aceh have been established for 3-5 years, 5-10 years and more than 10 years. Even so, every MSME is greatly impacted by Covid-19. MSMEs that have been around for a long time should be able to adapt to these problems, such as implementing special strategies to survive in the midst of a pandemic (Hardilawati, 2020), marketing efficiency for MSMEs (Gilmore and Carson, 2018) and product certification.

The certification of MSME products in Banda Aceh in this study is shown in Figure 4, showing that 2/3 of the total products have not been certified (201). There are only 63 products that have Micro Small Business Permits (IUMK), only 16% or 50 businesses have Business Identification Numbers (NIB). Some, such as the Home Industry Food Certification (PIRT), only 13 businesses, even the Food and Drug Supervisory Agency (BPOM) certification and halal certification only 11 businesses. This situation should be a major concern in running a MSME business. In fact, certification is an important factor in trade competition both on a local scale, free trade and the implementation of the ASEAN Economic Community (AEC) in the future (Fahma et al., 2018). The fact is that certification has not been implemented by 80% of MSMEs in Indonesia (Irjayanti and Azis, 2012), even halal certification for areas of Muslim countries such as Indonesia and the Aceh region which implements Islamic law. MSMEs do not know or still underestimate their business certification. The certification of a business will convince customers more for their business (Bulak and Turkyilmaz, 2014). Halal-certified products can promote customer satisfaction, confidence, and trust in addition to increasing market share and market competitiveness (Abdul et al., 2013). This research also identified 90% of MSMEs in Banda Aceh as micro businesses and only 10% were individuals. The certification of a business will convince customers more for their business (Bulak and Turkyilmaz, 2014). Halal-certified products can promote customer satisfaction, confidence, and trust in addition to increasing market share and market competitiveness (Abdul et al., 2013). This research also identified 90% of MSMEs in Banda Aceh as micro businesses and only 10% were individuals.

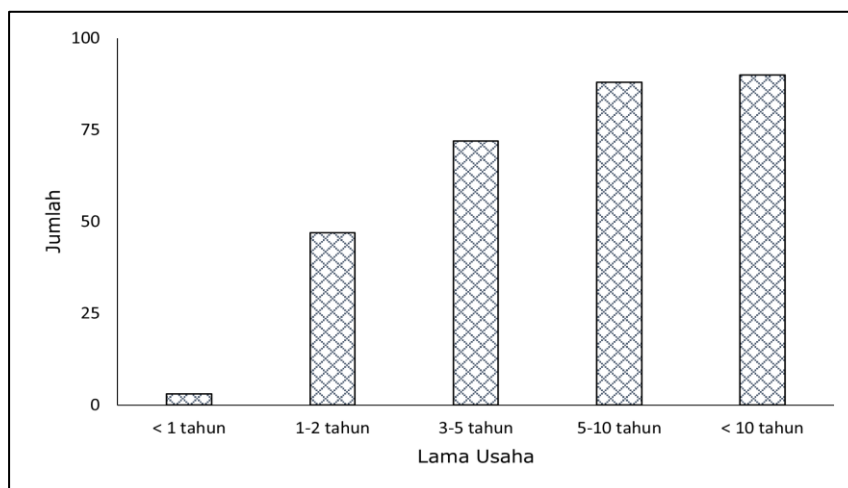


Figure 3. The duration of the MSME business

MSME Financial Status

The results of this study which include the financial status of MSME in Banda Aceh City are applied parameters such as Taxpayer Identification Number (NPWP), whether MSME actors have loans, total income during the pre-covid-19 pandemic and during the co-19 pandemic, financial

RELATIONSHIP BETWEEN EDUCATIONAL ASPECTS AND ECONOMIC VULNERABILITY OF SMALL AND MEDIUM-SIZED ENTERPRISES (SMEs) FOR ENVIRONMENTAL SOCIAL DISASTERS IN BANDA ACEH

Parmakope, Agussabti, Nizamuddin

reporting, promotional solutions products, and MSME business development strategies. Based on the research results, 91% of MSME actors do not have a NPWP. Even though the MSME sector is a large sector in the Indonesian economy. On the other hand, the government has socialized the simplification of tax rates (Huda, Basri and Julita, 2015). Tax for MSMEs with income below Rp. 4.8 billion / year is only subject to tax of 1% (Government Regulation Number 46 of 2013).

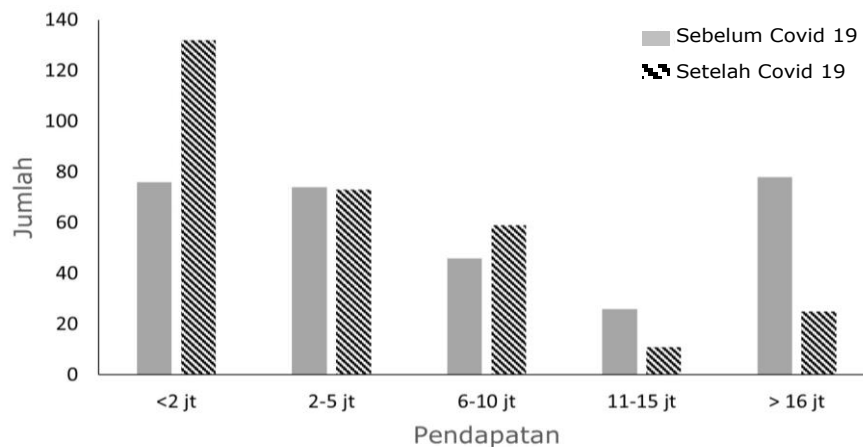


Figure 5. MSME income during the period before and after Covid-19

The results from the respondents of this study also found that only 102 MSMEs carried out financial reporting with 4 businesses reporting profit and loss, 3 MSMEs making trade balance reports, 3 reports on changes in capital and only 96 MSMEs making cash flow reports. However, financial management is one of the important concepts in finance and financial management (Humaira and Sagoro, 2018). Financial management behavior will be decisive in the acquisition, allocation and utilization of financial resources (Mien and Thao, 2015). This deficiency should be minimized by conducting training for MSME actors and workers. However, the results of this study found that only 48 MSMEs conducted job skills training.

The results of this research survey show that the income of MSMEs in Banda Aceh City has decreased as shown in Figure 5. Before the Covid-19 pandemic occurred, there were 78 MSMEs earning income above Rp. 16 million. Meanwhile, after the Covid-19 pandemic occurred, only 25 MSMEs were able to maintain income above Rp. 16 million. This situation means that income at a lower level will increase after the Covid 19 pandemic. For example, income below Rp. 2 million in the period before the Covid-19 pandemic, only 76 MSMEs, then increased to 132 MSEs. Although profits from MSMEs have decreased, only 30 MSMEs are involved in loans such as banks (17), cooperatives (10), microfinance institutions (2) and loan sharks (1). The decline in net profit due to covid-19 has shown that, the covid-19 pandemic has not only resulted in a health and social crisis, but also an economic crisis, especially for MSMEs (Al-Fadly, 2020). The MSME sector that has the most impact is the clothing, food, and tourism sectors (Skidmore, 2020). As a result of the Covid-19 pandemic, MSME operations are carried out based on access restrictions, both limiting operating hours, limiting public spaces, and reducing the use of cash. MSMEs must be able to survive in the midst of a pandemic with very limited options among businesses, employees, customers and government regulations (Al-Fadly, 2020). MSME actors must be able to think of short-term solutions and long-term solutions to overcome problems that occur in running their businesses (Accenture, 2020). The implementation of online and take away sales strategies must be a list of options. The results of this study were only 49% of MSMEs doing business promotion, using either offline media, online or a combination of during-online. Utilization of

digital resources is one of the main facilitators in designing innovative products with limited distance during the Covid-19 period (Caballero-Morales, 2021).

Structural Equation Modeling (SEM) Analysis

Further analysis was carried out based on Structural Equation Modeling (SEM) analysis (Hansmann and Ringle, 2004). Currently the SmartPLS-3 software is the most popular application for analyzing social and business research data to see causal effects (Astuti and Bakri, 2021). The first variable is an external factor or exogenous factor (x) which consists of 6 indicators, namely Human Resources (HR), Production (PRO), Finance (KEU), Marketing (PEMA), Mitigation (MITI), aspects of government assistance and aspects of government information (PEM1), aspects of government regulation (PEM2). Meanwhile, the second variable is the internal factor or the internal factor (y), which consists of economic vulnerability. The SEM calculation is based on SMART PLS 3. However, the calculation process from SEM is not shown in this article. The total effect of exogenous factors on susceptibility is shown in Table 2.

Table 2. Total effect of exogenous factors on indogeneous factors (vulnerabilities)

	VULNERABILITY	KEU	MIT	PEM 1	PEM 2	PEM A	PRO	HR
VULNERABILITY								
KEU	-0.020							
MIT	0.050							
PEM1	0.241	0.062	0.018			0.258	0.200	-0.310
PEM2	0.176	0.005	0.959			0.137	0.086	-0.137
PEMA	0.935							
PRO	0.001							
HR								

Based on Table 2, the direct influence of Aspects of Government Assistance and Aspects of Government Information (PEM1) on MSME Vulnerability is 24.1%, Finance is 6.2%, Mitigation is 1.8%, Marketing is 25.8%, Production is 20% and there is no effect on Human Resources. While the Influence of Government Regulation Aspects (PEMA2) on Vulnerability is 17.6%, Mitigation 95.9%, Marketing 13.7%, Production 8.6%.

Strengths, Weaknesses, Opportunities and Threats (SWOT) analysis

SWOT calculations are carried out to determine strategic planning, identify and examine available resources both based on internal and external factors and to determine positive or negative impacts on the business being undertaken (Namugenyi, Nimmagadda and Reiners, 2019). The SWOT analysis was carried out based on the SWOT matrix (Benzaghta et al., 2021) in Figure 6.



Figure 6. SWOT matrix classification

RELATIONSHIP BETWEEN EDUCATIONAL ASPECTS AND ECONOMIC VULNERABILITY OF SMALL AND MEDIUM-SIZED ENTERPRISES (SMEs) FOR ENVIRONMENTAL SOCIAL DISASTERS IN BANDA ACEH

Parmakope, Agussabti, Nizamuddin

Based on Figure 6, the SO quadrant is the category of aggressive strategy or taking advantage of opportunities. In the ST quadrant in the defensive strategy category or avoiding threats. In the WO quadrant, namely the development strategy category or introducing new opportunities by reducing weaknesses. While WT is a diversification strategy or avoiding threats by minimizing weaknesses. SWOT analysis calculations in this study are shown in Table 3.

Table 3. Problems and recommendations - recommendations from the SWOT analysis matrix

	<i>Opportunities (O)</i>	<i>Threats (T)</i>
	<ol style="list-style-type: none"> 1. There is assistance from the government in the form of business capital, equipment, training 2. People are used to online transactions (e-commerce) 	<ol style="list-style-type: none"> 1. Implementation of PPKM 2. UMR increase Infected with Covid-19
<i>Strength (S)</i>	SO strategy (<i>aggressive strategy</i>)	ST Strategy (<i>defensive strategy</i>)
<ol style="list-style-type: none"> 1. Human Resources who are trained in this case workers and business owners already have sufficient expertise in managing a business 2. The number of workers in accordance with business needs 3. Strategic business location 4. Adequate sources of raw materials and easy to obtain 5. There is a business license issued by the competent authority. 6. Have regular customers 	<ol style="list-style-type: none"> 1. Improving services with a trained workforce 2. Increase the amount of production with the help of equipment from the government 3. Increase sales by using online transactions 	<ol style="list-style-type: none"> 1. Adhering to health standards for preventing the transmission of Covid-19 through the 3M principles at the place of business 2. Adjusting employee salaries according to the UMR of Banda Aceh City 3. Limit Business Hours in accordance with the direction of the Government
<i>Weaknesses (W)</i>	WO Strategy (<i>development strategy</i>)	WT Strategy (<i>diversification strategy</i>)
<ol style="list-style-type: none"> 1. Sources of raw materials that are difficult to obtain 2. Workers who quit for fear of contracting the Covid-19 disease 3. Decreased sales turnover. 4. Lack of business promotion 	<ol style="list-style-type: none"> 1. Increasing sales turnover through digital e-commerce transactions (Tokopedia, Bukalapak, Bli-bli, etc 2. Through online media (facebook, intragram, website), business promotion is carried out to increase sales turnover 	<ol style="list-style-type: none"> 1. Store raw materials into warehouses or temporary storage areas 2. Reducing the amount of production 3. Trying other models or production of goods.



Economic Vulnerability

Based on the results of this study, the economic vulnerability of MSME actors as a result of Covid-19 is in the form of problems for MSME actors in obtaining raw materials. This limitation is due to the distance between the production house and the place of business. In addition, workers are starting to fear the spread of Covid-19 so that the number of workers is starting to decrease. As a result of this, the average turnover of MSME businesses has decreased drastically due to the decline to the point where there are almost no sales. This situation is also increasingly complicated because almost all MSME actors do not make good financial reports, so that the calculation of reserve funds cannot be carried out. Policy measures aimed at mitigating the health and socioeconomic consequences of the COVID-19 pandemic must consider how vulnerabilities cluster and interact with each other both within different individuals and groups, and how this can exacerbate pre-existing inequalities (Mikolai, Keenan and Kulu, 2020). MSMEs are drivers of the regional and national economy, local and national governments need to develop strategies and policies to reduce the economic vulnerability of MSMEs due to the impact of the Covid-19 pandemic (Ruhyana et al., 2021). Vulnerability analysis emphasizes the physical condition of the area and the impact of the socio-economic conditions of the local community MSMEs are drivers of the regional and national economy, local and national governments need to develop strategies and policies to reduce the economic vulnerability of MSMEs due to the impact of the Covid-19 pandemic (Ruhyana et al., 2021). Vulnerability analysis emphasizes the physical condition of the area and the impact of the socio-economic conditions of the local community MSMEs are drivers of the regional and national economy, local and national governments need to develop strategies and policies to reduce the economic vulnerability of MSMEs due to the impact of the Covid-19 pandemic (Ruhyana et al., 2021). Vulnerability analysis emphasizes the physical condition of the area and the impact of the socio-economic conditions of the local community

Relationship between educational aspects and economic vulnerability

The level of education in this study based on Figure 7 is high school graduates/equivalent totaling 152 people. There are 90 undergraduate graduates and 36 elementary/junior high school graduates. The rest are diploma graduates, 16 people and only 6 people are postgraduate graduates. The level of education plays an active and significant role in increasing the poverty rate (Chen and Tao, 2010), especially during the Covid-19 pandemic (Ruchiyani et al., 2022). Entrepreneurial education level positively influences motivation and mentality in an effort to start and develop an independent business (Prihantoro and Hadi, 2016). Formal education will increase productivity in the business being undertaken (Maliranta and Nurmi, 2019). Human Resources,

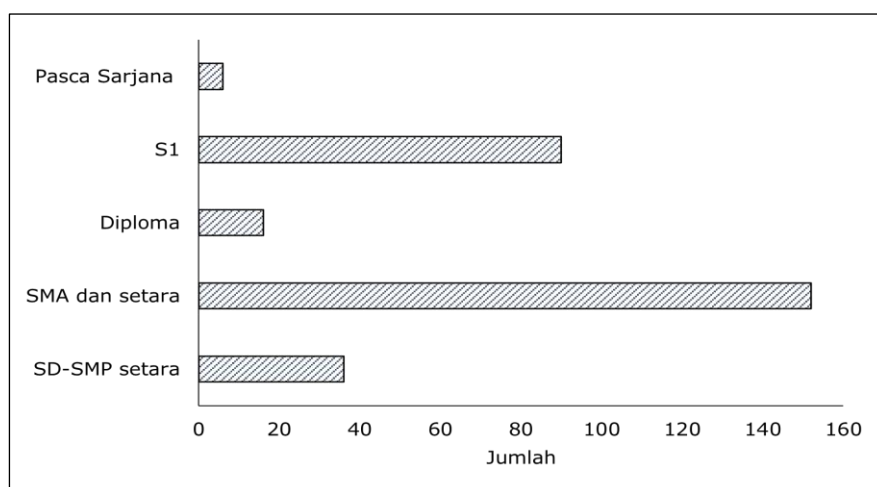


Figure 7. Distribution of education levels of MSME actors

RELATIONSHIP BETWEEN EDUCATIONAL ASPECTS AND ECONOMIC VULNERABILITY OF SMALL AND MEDIUM-SIZED ENTERPRISES (SMEs) FOR ENVIRONMENTAL SOCIAL DISASTERS IN BANDA ACEH

Parmakope, Agussabti, Nizamuddin

4. CONCLUSION

As a result of the Covid-19 pandemic, many MSMEs have experienced a decrease in turnover and profits and have even closed their businesses. Some MSME actors are trying to survive by reducing the amount of production and selling through online sales. As a result of the business going bankrupt, many employees were at home and business owners tried other businesses. Assistance from the government is felt to be very useful, but it is not optimal when viewed from the impact of Covid-19, especially during the implementation of PPKM and curfews. Many MSMEs do not understand risk management so almost all MSMEs are vulnerable to disasters.

REFERENCES

- Abdul, M., Ismail, H., Mustapha, M., & Kusuma, H. (2013). Indonesian small medium enterprises (SMEs) and perceptions on Halal food certification. *African Journal of Business Management*, 7(16), 1492–1500.
<https://doi.org/10.5897/AJBM11.2926>
- Accenture. (2020). Coronavirus (COVID-19) Pandemic Business Impact.
<https://www.accenture.com/in-en/about/company/coronavirus-business-economic-impact>
- Acter, T., Uddin, N., Das, J., Akhter, A., Choudhury, T. R., & Kim, S. (2020). Evolution of severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) as coronavirus disease 2019 (COVID-19) pandemic: A global health emergency. *Science of the Total Environment*, 730, 138996.
<https://doi.org/10.1016/j.scitotenv.2020.138996>
- Al-Fadly, A. (2020). Impact of covid-19 on smes and employment. *Entrepreneurship and Sustainability Issues*, 8(2), 629–648.
[https://doi.org/10.9770/jesi.2020.8.2\(38\)](https://doi.org/10.9770/jesi.2020.8.2(38))
- Atalan, A. (2020). Is the lockdown important to prevent the COVID-19 pandemic? Effects on psychology, environment and economic perspective. *Annals of Medicine and Surgery*, 56(June), 38–42.
<https://doi.org/10.1016/j.amsu.2020.06.010>
- Benzaghta, M. A., Elwalda, A., Mousa, M., Erkan, I., & Rahman, M. (2021). SWOT analysis applications: An integrative literature review. *Journal of Global Business Insights*, 6(1), 55–73. <https://doi.org/10.5038/2640-6489.6.1.1148>
- Bulak, M. E., & Turkyilmaz, A. (2014). Performance assessment of manufacturing SMEs: A frontier approach. *Industrial Management and Data Systems*, 114(5), 797–816.
<https://doi.org/10.1108/IMDS-11-2013-0475>
- Bustani, B., Khaddafi, M. ., & Nur Ilham, R. (2022). Regional Financial Management System of Regency/City Regional Original Income In Aceh Province Period Year 2016-2020. *International Journal of Educational Review, Law And Social Sciences (IJERLAS)*, 2(3), 459–468. <https://doi.org/10.54443/ijerlas.v2i3.277>.
- Caballero-Morales, S. O. (2021). Innovation as recovery strategy for SMEs in emerging economies during the COVID-19 pandemic. *Research in International Business and Finance*, 57(May 2020), 101396. <https://doi.org/10.1016/j.ribaf.2021.101396>
- Cássaro, F. A. M., & Pires, L. F. (2020). Can we predict the occurrence of COVID-19 cases? Considerations using a simple model of growth. *Science of the Total Environment*, 728, 138834.
<https://doi.org/10.1016/j.scitotenv.2020.138834>

- Chmutina, K., & von Meding, J. (2019). A Dilemma of Language: “Natural Disasters” in Academic Literature. *International Journal of Disaster Risk Science*, 10(3), 283–292. <https://doi.org/10.1007/s13753-019-00232-2>
- Cetinkaya, G., Nese Sahin, F., & Yariz, K. (2017). Leisure satisfaction level of active and passive participation in outdoor recreation activities and its relationship with public health. *Acta Medica Mediterranea*, 33(2), 191–196. https://doi.org/10.19193/0393-6384_2017_2_027
- Cheng, J., & ping Tao, J. (2010). Fuzzy Comprehensive Evaluation of Drought Vulnerability Based on the Analytic Hierarchy Process -----An Empirical Study from Xiaogan City in Hubei Province. *International Conference on Agricultural Risk and Food Security*, 1, 126–135. <https://doi.org/10.1016/j.aaspro.2010.09.015>
- Decker, R., Haltiwanger, J., Jarmin, R., & Miranda, J. (2014). The role of entrepreneurship in us job creation and economic dynamism. *Journal of Economic Perspectives*, 28(3), 3–24. <https://doi.org/10.1257/jep.28.3.3>
- Etikan, I., & Kabiru, B. (2017). Sampling and Sampling Methods. *Biometrics & Biostatistics International Journal*, 5(6), 215–217. <https://doi.org/10.15406/bbij.2017.05.00149>
- Fahma, F., Zakaria, R., & Gumilang, R. F. (2018). Framework for Designing the Assessment Models of Readiness SMEs to Adopt Indonesian National Standard (SNI), Case Study: SMEs Batik in Surakarta. *IOP Conference Series: Materials Science and Engineering*, 319(1). <https://doi.org/10.1088/1757-899X/319/1/012078>
- Falahuddin, F., Fuadi, . F., Munandar, M., Juanda, R. ., & Nur Ilham, R. . (2022). Increasing Business Supporting Capacity In Msmes Business Group Tempe Bungong Nanggroe Kerupuk In Syamtalira Aron District, Utara Aceh Regency. *Irpitage Journal*, 2(2), 65–68. <https://doi.org/10.54443/irpitage.v2i2.313>
- Fielden, S. L., Davidson, M. J., Dawe, A. J., & Makin, P. J. (2003). Factors inhibiting the economic growth of female owned small businesses in Northwest England. *Journal of Small Business and Enterprise Development*, 10(2), 152–166. <https://doi.org/10.1108/14626000310473184>
- Geovani, I. ., Nurkhotijah, S. ., Kurniawan, H. ., Milanie, F., & Nur Ilham, R. . (2021). Juridical Analysis of Victims of The Economic Exploitation of Children Under the Age to Realize Legal Protection From Human Rights Aspects: Research Study At The Office of Social and Community Empowerment In Batam City. *International Journal of Educational Review, Law And Social Sciences (IJERLAS)*, 1(1), 45–52. <https://doi.org/10.54443/ijerlas.v1i1.10>
- Gilmore, A., & Carson, D. (2018). SME marketing: efficiency in practice. *Small Enterprise Research*, 25(3), 213–226. <https://doi.org/10.1080/13215906.2018.1521740>
- Hadary, S. (2010). Why are Women-Owned Businesses Overall Smaller than Men-Owned Businesses? The Wall Street Journal, 17. [http://www.oesw.leg.mn/PDFdocs/Why do women start disproportionately fewer businesses than men.pdf](http://www.oesw.leg.mn/PDFdocs/Why%20do%20women%20start%20disproportionately%20fewer%20businesses%20than%20men%20.pdf)
- Hardilawati, W. L. (2020). STRATEGI BERTAHAN UMKM DI TENGAH PANDEMI COVID-19. *Jurnal Akuntansi & Ekonomika*, 10(1). <http://jurnal.apmd.ac.id/index.php/governabilitas/article/view/117>
- Huda, A., Basri, Y. M., & Julita, J. (2015). Pengaruh Persepsi Atas Efektifitas Sistem Perpajakan, Kepercayaan, Tarif Pajak dan Kemanfaatan Npwp terhadap Kepatuhan Membayar Pajak (Studi Empiris pada Wajib Pajak UMKM Makanan di Kpp Pratama Pekanbaru Senapelan). *Jurnal Online Mahasiswa Fakultas Ekonomi Universitas Riau*, 2(2). <https://doi.org/https://www.neliti.com/publications/34062/pengaruh-persepsi-atas-efektifitas-sistem-perpajakan-kepercayaan-tarif-pajak-dan#cite>
- Humaira, I., & Sagoro, E. M. (2018). Pengaruh Pengetahuan Keuangan, Sikap Keuangan, Dan Kepribadian Terhadap Perilaku Manajemen Keuangan Pada Pelaku Umkm Sentra

RELATIONSHIP BETWEEN EDUCATIONAL ASPECTS AND ECONOMIC VULNERABILITY OF SMALL AND MEDIUM-SIZED ENTERPRISES (SMEs) FOR ENVIRONMENTAL SOCIAL DISASTERS IN BANDA ACEH

Parmakope, Agussabti, Nizamuddin

- Kerajinan Batik Kabupaten Bantul. *Nominal, Barometer Riset Akuntansi Dan Manajemen*, 7(1). <https://doi.org/10.21831/nominal.v7i1.19363>
- Ilham, Rico Nur. *et all* (2019). Comparative of the Supply Chain and Block Chains to Increase the Country Revenues via Virtual Tax Transactions and Replacing Future of Money. *International Journal of Suplly Management*. Volume 8 No.5 August 2019.
- _____. *et all* (2019). Investigation of the Bitcoin Effects on the Country Revenues via Virtual Tax Transactions for Purchasing Management. *International Journal of Suplly Management*. Volume 8 No.6 December 2019.
- Irayanti, M., & Azis, A. M. (2012). Barrier Factors and Potential Solutions for Indonesian SMEs. *Procedia Economics and Finance*, 4(Icsmed), 3–12. [https://doi.org/10.1016/s2212-5671\(12\)00315-2](https://doi.org/10.1016/s2212-5671(12)00315-2)
- IMF. (2021). International Monetary Fund-World economic outlook update, January 2021: Policy support and vaccines expected to lift activity. *International Monetary Fund*. <https://www.imf.org/en/Publications/WEO/Issues/2021/01/26/2021-world-economic-outlook-update>.
- JHU. (2020). COVID-19 Map - Johns Hopkins Coronavirus Resource Center. In Johns Hopkins Coronavirus Resource Center (p. 1). <https://coronavirus.jhu.edu/map.html>.
- Karadag, H. (2015). Financial Management Challenges In Small And Medium-Sized Enterprises: A Strategic Management Approach. *EMAJ: Emerging Markets Journal*, 5(1), 26–40. <https://doi.org/10.5195/emaj.2015.67>
- Koskey, K. L. K., & Stewart, V. C. (2014). A Concurrent Mixed Methods Approach to Examining the Quantitative and Qualitative Meaningfulness of Absolute Magnitude Estimation Scales in Survey Research. *Journal of Mixed Methods Research*, 8(2), 180–202. <https://doi.org/10.1177/1558689813496905>
- Lasta Irawan, A. ., Briggs, D. ., Muhammad Azami, T. ., & Nurfaliza, N. (2021). The Effect of Position Promotion on Employee Satisfaction With Compensation As Intervening Variables: (Case Study on Harvesting Employees of PT. Karya Hevea Indonesia). *International Journal of Social Science, Educational, Economics, Agriculture Research, and Technology (IJSET)*, 1(1), 11–20. <https://doi.org/10.54443/ijset.v1i1.2>.
- Likdanawati, likdanawati, Yanita, Y., Hamdiah, H., Nur Ilham, R., & Sinta, I. (2022). Effect of Organizational Commitment, Work Motivation And Leadership Style on Employee Performance of Pt. Aceh Distribus Indo Raya. *International Journal of Social Science, Educational, Economics, Agriculture Research, and Technology (IJSET)*, 1(8), 377–382. <https://doi.org/10.54443/ijset.v1i8.41>.
- Lim, D., Schoo, A., Lawn, S., & Litt, J. (2019). Embedding and sustaining motivational interviewing in clinical environments: A concurrent iterative mixed methods study. *BMC Medical Education*, 19(1), 1–12. <https://doi.org/10.1186/s12909-019-1606-y>
- Lutz, C., & Hoffmann, C. P. (2017). The dark side of online participation: exploring non-, passive and negative participation. *Information Communication and Society*, 20(6), 876–897. <https://doi.org/10.1080/1369118X.2017.1293129>
- Majied Sumatrani Saragih, M. ., Hikmah Saragih, U. ., & Nur Ilham, R. . (2021). Relationship Between Motivation And Extrinsic Motivation to Icreasing Entrepreneurship Implementation From Spp Al-Falah Group At Blok 10 Village Dolok Masihul. *Morfai Journal*, 1(1), 1–12. <https://doi.org/10.54443/morfai.v1i1.11>.
- Maliranta, M., & Nurmi, S. (2019). Business owners, employees, and firm performance. *Small Business Economics*, 52(1), 111–129. <https://doi.org/10.1007/s11187-018-0029-1>

- Mien, N. T. N., & Thao, T. P. 2015. Factors Affecting Personal Financial Management Behaviors: Evidence from Vietnam. *Proceedings of the Second Asia-Pacific Conference on Global Business, Economics, Finance and Social Sciences* (AP15Vietnam Conference).
<https://doi.org/10.1161/01.HYP.0000200705.61571.95>
- Mikolai, J., Keenan, K., & Kulu, H. (2020). Intersecting household-level health and socio-economic vulnerabilities and the COVID-19 crisis: An analysis from the UK. *SSM - Population Health*, 12(May), 100628.
<https://doi.org/10.1016/j.ssmph.2020.100628>
- Milton, J., & Ohira, T. (2021). Mathematics as a Laboratory Tool. In *Mathematics as a Laboratory Tool*. Springer International Publishing.
<https://doi.org/10.1007/978-3-030-69579-8>
- Mintje, S. M. (2016). Pengaruh Sikap, Kesadaran, Dan Pengetahuan Terhadap Kepatuhan Wajib Pajak Orang Pribadi Pemilik (UMKM) dalam Memiliki (NPWP) (Studi pada Wajib Pajak Orang Pribadi Pemilik UMKM yang Terdaftar di KPP Pratama Manado). *Jurnal EMBA*, 4(1), 1031–1043.
- Moosazadeh, M., Ifaei, P., Saman, A., Charmchi, T., & Asadi, S. (2022). A machine learning-driven spatio-temporal vulnerability appraisal based on socio-economic data for COVID-19 impact prevention in the US. counties. *Sustainable Cities and Society*, 83(June), 103990.
<https://doi.org/10.1016/j.scs.2022.103990>
- Namugenyi, C., Nimmagadda, S. L., & Reiners, T. (2019). Design of a SWOT analysis model and its evaluation in diverse digital business ecosystem contexts. *Procedia Computer Science*, 159, 1145–1154. <https://doi.org/10.1016/j.procs.2019.09.283>
- Neville, F., Orser, B., Riding, A., & Jung, O. (2014). Do young firms owned by recent immigrants outperform other young firms? *Journal of Business Venturing*, 29(1), 55–71.
<https://doi.org/10.1016/j.jbusvent.2012.10.005>
- Nugroho, E. (2018). *Prinsip-prinsip Menyusun Kuesioner*. In *Prinsip - prinsip Menyusun Kuesioner*. Universitas Brawijaya Press.
- Nur Ilham, R. ., Arliansyah, A., Juanda, R., Multazam, M. ., & Saifanur, A. . (2021). Relathionsip Between Money Velocity and Inflation To Increasing Stock Investment Return: Effective Strategic By Jakarta Automated Trading System Next Generation (Jats-Ng) Platform. *International Journal of Economic, Business, Accounting, Agriculture Management and Sharia Administration (IJEBAS)*, 1(1), 87–92.
<https://doi.org/10.54443/ijebas.v1i1.27>.
- _____, Heikal, M. ., Khaddafi, M. ., F, F., Ichsan, I., F, F., Abbas, D. ., Fauzul Hakim Hasibuan, A. ., Munandar, M., & Chalirafi, C. (2021). Survey of Leading Commodities of Aceh Province As Academic Effort to Join and Build The Country. *Irpitage Journal*, 1(1), 13–18. <https://doi.org/10.54443/irpitage.v1i1.19>.
- _____, Likdanawati, L., Hamdiah, H., Adnan, A., & Sinta, I. . (2022). Community Service Activities “Socialization Avoid Study Investment” to The Student Bond of Serdang Bedagai. *Irpitage Journal*, 2(2), 61–64. <https://doi.org/10.54443/irpitage.v2i2.312>.
- Pedauga, L., Sáez, F., & Delgado-Márquez, B. L. (2022). Macroeconomic lockdown and SMEs: the impact of the COVID-19 pandemic in Spain. *Small Business Economics*, 58(2), 665–688. <https://doi.org/10.1007/s11187-021-00476-7>
- Pranatawijaya, V. H., Widiatry, W., Priskila, R., & Putra, P. B. A. A. (2019). Penerapan Skala Likert dan Skala Dikotomi Pada Kuesioner Online. *Jurnal Sains Dan Informatika*, 5(2), 128–137. <https://doi.org/10.34128/jsi.v5i2.185>
- Prihantoro, W. S. G., & Hadi, S. (2016). Pengaruh Pendidikan Kewirausahaan, Motivasi Berwirausaha dan Lingkungan Keluarga Terhadap Sikap Mental Kewirausahaan. *Economic Education Analysis Journal*, 5(2), 705–717.
<http://journal.unnes.ac.id/sju/index.php/eeaj>

RELATIONSHIP BETWEEN EDUCATIONAL ASPECTS AND ECONOMIC VULNERABILITY OF SMALL AND MEDIUM-SIZED ENTERPRISES (SMEs) FOR ENVIRONMENTAL SOCIAL DISASTERS IN BANDA ACEH

Parmakope, Agussabti, Nizamuddin

- Quigley, B., & Rustagi, N. (2018). Level of Education and Family Dynamics among Immigrant and Nonimmigrant Business Owners in the Case of Arlington County, VA. *Competition Forum*, 16(2), 90.
- Rahmaniar, R., Subhan, S., Saharuddin, S., Nur Ilham, R. ., & Anwar, K. . (2022). The Influence of Entrepreneurship Aspects on The Success of The Chips Industry In Matang Glumpang Dua and Panton Labu. *International Journal of Social Science, Educational, Economics, Agriculture Research, and Technology (IJSET)*, 1(7), 337–348. <https://doi.org/10.54443/ijset.v1i7.36>.
- Ribeiro, M. S. M., Andrade, L. de M. B., Constantino Spyrides, M. H., Lima, K. C., Evangelista da Silva, P., Batista, D. T., & de Lara, I. A. R. (2021). Environmental Disasters in Northeast Brazil : Hydrometeorological , Social , and Sanitary Factors. *American Meteorological Society*, 541–554. <https://doi.org/https://doi.org/10.1175/wcas-d-20-0132.1>
- Ruhyana, N. F. R., Ferdiansyah, H., Suwardini, N., & Arifin, A. (2021). Analysis of The Vulnerability of Micro and Small Enterprise Due to the Covid-19 Pandemic in Sumedang Regency. *INOVASI: Jurnal Politik Dan Kebijakan*, 18(2), 199–210.
- Ruchiyani, Y., Bambang, S., Nisya, N., Nilam, C., & Nauval, A. (2022). Faktor-Faktor Penyebab Kerentanan Ekonomi Indonesia. *Jurnal Cakrawala Ilmiah*, 1(6), 1575–1584.
- Sandi, H. ., Afni Yunita, N. ., Heikal, M. ., Nur Ilham, R. ., & Sintia, I. . (2021). Relationship Between Budget Participation, Job Characteristics, Emotional Intelligence and Work Motivation As Mediator Variables to Strengthening User Power Performance: An Emperical Evidence From Indonesia Government. *Morfai Journal*, 1(1), 36–48. <https://doi.org/10.54443/morfai.v1i1.14>.
- Sharafizad, J., & Coetzer, A. (2016). Women business owners’ start-up motivations and network content. *Journal of Small Business and Enterprise Development*, 23(2), 590–610. <https://doi.org/10.1108/JSBED-07-2015-0085>
- Sintia, I. ., Nur Ilham, R., Kumala Sari, D. ., M, M., Khaidir, K., & Ekamaida, E. (2021). Training The Processing of Tomato Sauce For A Home-Based Business The Scale of SMES. *Irpitage Journal*, 1(1), 26–28. <https://doi.org/10.54443/irpitage.v1i1.24>.
- Sinurat, M. ., Heikal, M. ., Simanjuntak, A. ., Siahaan, R. ., & Nur Ilham, R. . (2021). Product Quality On Consumer Purchase Interest With Customer Satisfaction As A Variable Intervening In Black Online Store High Click Market: Case Study on Customers of the Tebing Tinggi Black Market Online Store. *Morfai Journal*, 1(1), 13–21. <https://doi.org/10.54443/morfai.v1i1.12>.
- Skidmore, R. (2020). *How can we help small business affected by the COVID-19 crisis? In International Trade Center.*
- Sutanto, O., & Nurrachman, N. (2018). Makna Kewirausahaan Pada Etnis Jawa, Minang, Dan Tionghoa: Sebuah Studi Representasi Sosial. *Jurnal Psikologi Ulayat*, 5(1), 86. <https://doi.org/10.24854/jpu12018-75>
- Thorik, S. H. (2020). Efektivitas Pembatasan Sosial Berskala Besar Di Indonesia Dalam Penanggulangan Pandemi Covid-19. *Jurnal Adalah : Buletin Hukum Dan Keadilan*, 4(1), 115–120.
- Tonge, J. (2008). Barriers to networking for women in a UK professional service. *Gender in Management: An International Journal*, 23(7), 484–505. <https://doi.org/10.1108/17542410810908848>
- United Nations Office for Disaster Risk Reduction. (2020): Terminology. diakses 14 Agustus 2022, <https://www.undrr.org/terminology>.
- UNCTAD. (2021). COVID-19 and tourism. https://unctad.org/system/files/official-document/ditcinf2021d3_en_0.pdf.

- van Praag, M., & van Stel, A. (2013). The more business owners, the merrier? The role of tertiary education. *Small Business Economics*, 41(2), 335–357.
<https://doi.org/10.1007/s11187-012-9436-x>
- Weber, S. S. (2007). Saving St. James: A case study of farmwomen entrepreneurs. *Agriculture and Human Values*, 24(4), 425–434.
<https://doi.org/10.1007/s10460-007-9091-z>
- Xiao, C. (2020). A novel approach of consultation on 2019 novel coronavirus (COVID- 19)-related psychological and mental problems: Structured letter therapy. *Psychiatry Investigation*, 17(2), 175–176.
<https://doi.org/10.30773/pi.2020.0047>
- Yu, W., Ai, T., & Shao, S. (2015). The analysis and delimitation of Central Business District using network kernel density estimation. *Journal of Transport Geography*, 45, 32–47.
<https://doi.org/10.1016/j.jtrangeo.2015.04.008>
- Yusuf Iis, E., Wahyuddin, W., Thoyib, A., Nur Ilham, R., & Sinta, I. (2022). The Effect of Career Development And Work Environment On Employee Performance With Work Motivation As Intervening Variable At The Office Of Agriculture And Livestock In Aceh. *International Journal of Economic, Business, Accounting, Agriculture Management and Sharia Administration (IJEBAS)*, 2(2), 227–236.
<https://doi.org/10.54443/ijebas.v2i2.191>.