



Empowerment of msmes resilience with pestel the strategy to minimize economic poverty in East Nusa Tenggara province

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ABSTRACT

This study aims to analyze the relationship between Political, Economic, Social, Technological, and Environmental (PESTEL) factors with the MSME resilience variable to minimize economic poverty in East Nusa Tenggara Province. Research using quantitative research methods. Data was taken by distributing questionnaires to 231 food SMEs in Kupang City. The sample selection used the convenience sampling method. Data analysis using SEM AMOS and the results of the study show that political and technological factors have no effect on MSME food security and do not minimize economic poverty in Kupang City. The ineffectiveness of these two factors on the resilience of MSMEs is because the Kupang City government does not yet have regulations regarding MSME empowerment. For technological factors, MSME marketing in Kupang City still relies on the Word of Mouth model rather than the use of technology. On the other hand, economic, social and environmental factors influence the resilience of food MSMEs and are able to minimize economic poverty in Kupang City, NTT Province. Changes in the lifestyle of the people in Kupang City as part of social factors, increased economic activity in the community, and integrated aspects of community life as indicators of environmental aspects support the resilience of MSMEs and minimize poverty in the Province of NTT.

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INTRODUCTION

Poverty is defined as the inability of a person from an economic standpoint to meet basic needs, both food and non-food needs, as measured by expenditure (BPS, 2015). Poverty is also interpreted

as a lack of access to education and employment to overcome the problem of poverty and also not getting proper respect as a citizen (Perpres Number 7 of 2005 concerning RPJMN). Economically, poverty can be seen from the level of lack of resources that can be used to meet the necessities of life and improve the welfare of groups of people (Pandu, 2016). Based on the definition of poverty above, East Nusa Tenggara Province (NTT) based on BPS data (2015) still occupies the third position as the province with the highest poverty rate in Indonesia after Papua and West Papua. This means that there are people in the Province of NTT who still experience difficulties in meeting their basic needs, are unable to access education and employment and are not properly rewarded as citizens.

The number and percentage of poverty in NTT based on data from the 2010-2014 period fluctuated. According to BPS data, the number of poor people in NTT in 2014 amounted to 991.88 thousand people (19.60 percent) or decreased by 2 thousand people compared to 2013 which amounted to 993.56 thousand people (20.03 percent) (Provinsi & Tenggara, 2014). The poverty data for NTT per district also shows fantastic figures. From the figure above it can be seen that there are three groups of districts/cities based on the poverty percentage of each district/city. The first group is the group with regencies/cities with a high percentage of poverty, namely South Central Timor, Rote Ndao, Sabu Raijua, East Sumba, Central Sumba, West Sumba and Southwest Sumba with poverty percentages ranging from 24.01% - 31.40%. The second group is the district/city group with a medium poverty percentage, namely Kupang, North Central Timor, Alor, Lembata, Ende, Manggarai, West Manggarai and East Manggarai with poverty percentages ranging from 14.24% - 24.01%. Finally, the third group is the district/city group with a low poverty percentage, namely the Cities of Kupang, Belu, East Flores, Sikka, Nagekeo, and Ngada with a poverty percentage ranging from 7.83% - 14.24%. In addition to the data above, an increase in poverty in NTT will also occur from 2019 to 2021 with the magnitude: 1 146.32 thousand people, 1 153.76 thousand people, 1 169.31 thousand people (BPS NTT). The data above shows that poverty and ways to overcome it are still homework for the Provincial Government of NTT.

Poverty in NTT has been exacerbated by the presence of the Covid-19 pandemic. The Central Statistics Agency (BPS) for East Nusa Tenggara Province recorded that the number of poor people in the NTT province increased by 19,770 people to 1,173.53 thousand in September 2020. The existence of the COVID-19 pandemic has resulted in the poverty rate in the province of NTT moving up in percentage terms, namely in March 2020 by 20.90 percent to 21 percent in September 2020. Meanwhile regarding the poverty line in NTT in September 2020 it was recorded at IDR 404,712/capita/month or up 5.46 percent compared to September 2019.

To minimize the problem of poverty above, the Provincial Government of NTT should be able to maximize and empower the potential of local MSMEs, considering that MSMEs are one of the pillars of economic revival. Nationally, the contribution of MSMEs to GDP at current prices has increased by 5.7% which, if converted into rupiah, is equivalent to Rp. 9,580.8 trillion rupiah (Jayani, 2021). Compared to other types of businesses in Indonesia, MSMEs employ 97% of the workforce. This 97% figure is equivalent to 119.6 million, which means that there are 119.6 million people working as workers in Indonesian MSMEs. In the above 119.6 million details, 63.4 million are workers in Micro Enterprises (UMi), 783.1 thousand are workers in Small Enterprises and there are 60.7 thousand people who are workers in Medium Enterprises (UM). Labor absorption in the MSME group has continued to increase since 2018 with a presentation of 2.21%. Meanwhile, large enterprises (UB) are only able to absorb 3.6 million workers and the number of UB in Indonesia is relatively small, namely 5.5%, which means that they occupy the position of 0.01% of all businesses in Indonesia.

Locally, MSMEs in NTT have great potential. Bank Indonesia (BI) in an interview with AntaraNews (2020) stated that MSMEs in NTT contributed 99% to Regional Gross Domestic Product (GDP). MSMEs in NTT. In terms of manpower, MSMEs in NTT absorb 1.5 million workers. From this great potential, MSMEs in NTT are also experiencing a downturn as evidenced

by data from Bank Indonesia which shows that there are 4,157 MSMEs affected by the co-19 pandemic. In addition, BI also emphasized that there was a 75% decrease in MSME income (Lewokeda, 2020). The potential for large MSMEs in NTT, if the problem is solved and properly empowered, can minimize poverty in NTT.

Considering that the factors that form poverty are very varied, this research is aimed at finding solutions to NTT's economic poverty through empowering MSMEs in NTT Province to minimize poverty in NTT with a contingency perspective that focuses on PESTEL factors (political, economic, social, technological, and the environment). This research is different from the research of Sardi, et al (2020), which only focuses on improving management to improve the economy through MSMEs. This research offers more additional factors that are summarized in PESTEL to minimize poverty through MSMEs in poor areas. Furthermore, it is also different from the research by Nurunnabi, Alhawal and Bassam (2020) which focuses on how the government provides jobs and attracts investors to MSMEs as a step for post-covid-19 regional economic recovery. This research focuses on not only looking at political elements through government regulations but also looking at social, technological, economic elements and not emphasizing the condition of Covid 19 but on areas that are categorized as economically poor. It is also different from the research by Papadopoulou, Baltas and Balta (2020), which focuses on improving MSMEs through technology during the Covid-19 pandemic; This research provides MSME development variables through PESTEL for MSME resilience in overcoming poverty.

RESEARCH METHOD

This study uses a quantitative method. Data was collected by distributing questionnaires to 231 food SMEs in Kupang City, East Nusa Tenggara Province (NTT). The choice of NTT Province as the research location was due to its being in the 3rd position of the poorest in Indonesia and MSMEs were chosen because they have the highest potential compared to other MSMEs. Data collection in this study was carried out using a survey method, which means that structured questionnaires were distributed to respondents and designed to produce specific information. Questionnaires will be given to MSME actors by selecting MSME samples using the convenience sampling method. The results of the questionnaire survey were then processed by the researcher using SEM AMOS Version 24.

RESULTS AND DISCUSSIONS

Based on data analysis performed using AMOS SEM, the following results were obtained: Measurement Models: Validity and Reliability Tests as shown in table 1. This table states the degree of accuracy of the research measuring instrument for the actual content being measured. This table states the degree of accuracy of the research measuring instrument on the actual content that is measured as part of the validity test and reliability test to measure whether the questionnaire is consistent or not in the study used to measure the influence between variables. The loading factor value indicates that the correlation between the indicators and the construct. If the value is ≥ 0.5 then it shows a very close relationship as seen in the factor loading value of each variable indicator studied in this study. It can be seen in the table that there is no factor loading indicator value below 0.5. Table 1 data states that each indicator is valid because the factor loading value is more than the provisions, namely ≥ 0.5 . And the reliability value where for Hair et al., (2010) construct reliability criteria ≥ 0.70 and average variance extracted ≥ 0.50 . Furthermore, table 1 also shows the Average Variance Extracted (AVE) value. This value determines convergent validity. The rule is if the AVE value ≥ 0.5 then it is valid and if it is below 0.5 then it is convergently invalid. In this study all variables are convergently valid with the AVE value of each variable ≥ 0.5 . In the reliability test described in Construct Reliability (CR), where the acceptable level of reliability is ≥ 0.70 . If seen in table 1, all data has acceptable reliability because the CR \geq

0.70. From the data in table 1 it can be concluded that the entire research instrument can be used in this study.

Table 1. Validity and Reliability Test Results

<i>Variable</i>	<i>Factor loading</i>	<i>AVE</i>	<i>CR</i>
Political			
P1	0,669		
P2	0,738		
P3	0,773	0,518	0,881
P4	0,695		
Economy			
E1	0,728		
E2	0,761	0,515	0,808
E3	0,760		
E4	0,611		
Social			
S1	0,807		
S2	0,892	0,624	0,867
S3	0,606		
S4	0,825		
Technology			
T1	0,681		
T2	0,803	0,535	0,821
T3	0,661		
T4	0,771		
Environment			
E1	0,676		
E2	0,683		
E3	0,788	0,503	0,801
E4	0,683		
MSMEs			
Resilience			
R1	0,797		
R2	0,643		
R3	0,641		
R4	0,648	0,503	0,901
R5	0,775		
R6	0,704		
R7	0,766		
R8	0,683		
R9	0,706		

Source: Data was processed using SEM AMOS Version 24 (2022)

Furthermore, in table 2 there is a Goodness of Fit test. The goodness of fit test of this statistical model illustrates how well the model fits a series of observations. The goodness of fit index summarizes the difference between the observed values and the expected values in the statistical model. In Table 2, it is found that four criteria, including CFI, TLI, RMSEA, Cmin/df, determine one measure with a poor fit benchmark and the other a good fit. Hair et al., (2019) explained that if there is one of the many sizes of fit which states good fit, it means that the research is between the model and the sample, the population, the model explains the data, the model in this study is called fit. Goodness Of Fit to find out how far the hypothesized model "fits" or matches the sample data. Based on the results of the goodness of fit test in Table 2, it shows that the research model is a fit model.

Table 2. Goodness Of Fit

Feasibility test	Criteria	Results	Conclusion
Measuring Models Together			
RMSEA	RMSEA ≤ 0,08 Fit	0,100	Not fit
CMIN/df	CMIN/df ≤ 5,00 Fit	2,793	Fit
Comparative			
CFI	fit conditions CFI ≥ 0.90 0,80 ≤ CFI ≤ 0,90 (Marginal fit) Not fit when CFI ≤ 0,80	0,833	Marginal fit
TLI	TLI > 0,90 (Fit)	0,809	Not fit

Source: Data processed using SEM AMOS Version 24 (2022)

In table 3 there are the model structure: Regression weights. This explains the coefficient of influence between related variables. The hypothesis testing was carried out to answer the questions in this study or to analyze the structural relationships of the model. Hypothetical data analysis can be seen from the value of the standardized regression weight which shows the coefficient of influence between variables. From data processing it can be seen that there is a positive relationship between variables if CR shows a value > 1.96 and a P value < 0.05.

Table 3. Regression Weights

	Estimate	S.E.	C.R.	P	Conclusion
R <--- P	-,074	,040	-1,839	,066	Rejected
R <--- E	,192	,051	3,789	***	Accepted
R <--- S	,115	,036	3,235	,001	Accepted
R <--- T	,066	,037	1,769	,077	Rejected
R <--- E	,374	,087	4,290	***	Accepted

Source: Data processed using SEM AMOS Version 24 (2022)

Based on the table above, it can be interpreted that: Politics has no effect on MSME resilience. Political factors relate to how the government intervenes in the economy. In particular, political factors have areas including tax policy, labor law, environmental law, trade restrictions, tariffs, and political stability. Political factors can also include a long-term program that the government wants to provide or provide (proper goods) and goods that the government does not want to provide (good goods or bad goods) (Mahadiansar and Aspariyana, 2020). The lack of effect on the resilience of MSMEs with politics shows that MSMEs have not fully felt the role of the government in encouraging the progress of MSMEs. This is also supported by Araujo's research (2020) which shows that there is no Government Regulation regarding MSMEs in the City of Kupang as the Capital of the Province of NTT. The minimal role of the government in providing space for MSMEs makes it "difficult" for MSMEs to obtain business capital assistance and is increasingly synonymous with "(Businesses Are Lacking Capital)" as stated by (Husniyah et al., 2022). In addition, Nasution & Burhanuddin (2023) also emphasized that there are still many MSMEs who have not been registered as taxpayers, which means that there are still many MSMEs that have not contributed to efforts to restore the people's economy in Kupang City. Reflecting on the facts

above, MSMEs in Kupang City, especially in terms of political indicators, are unable to minimize economic poverty because they are limited by regulations and access to capital and markets.

Furthermore, the Economy has an effect on MSME Resilience and Minimizing Poverty. The test results show that the economy has an effect on the resilience of MSMEs. Korber & McNaughton (2018) defines corporate resilience as the ability to avoid, absorb, respond, and recover from situations that can threaten business existence (such as intense global competition, technological advances, increasingly demanding customer needs and natural disasters). Whether it is an online or physical business, economic factors can have a significant effect on it. This is because economic factors are directly related to business and also have a direct effect on business income and profits as happened to food SMEs in Kupang City. Higher economic activity means faster growth and higher revenue for the e-commerce industry while lower economic activity means the opposite. In this way, economic factors can have a direct and profound impact on the e-commerce industry (Anggraini & Nasution, 2013; Kraja & Osmani, 2013; Župerkienė et al., 2021). With the resilience of food MSMEs in Kupang City through economic factors it will encourage high economic growth and minimize poverty. The results of this research support the view of Nindita & Siregar (2013) which states that economic growth is a necessary condition for poverty reduction, while the adequacy requirement is that economic growth must be effective in reducing poverty.

Social factors affect the resilience of MSMEs and minimize poverty. Social factors refer to consumer demographics, cultural trends, family environment, education level, changes in attitudes and changes in lifestyle. In the data analysis it was found that social factors had an effect on the resilience of MSMEs. The presence of MSMEs is able to answer consumer needs. Food MSMEs provide solutions to the lifestyle of the people of Kupang City who want to get a different atmosphere in consuming food. The existence of food MSMEs in meeting cultural trends and changes in consumer attitudes shows that business actors are trying to maintain the viability of MSMEs through individual abilities to make the best use of resources (Safari & Saleh, 2020). Furthermore, the involvement of the community, in this case consumers, in celebrating (buying) food at food SMEs is a good step to minimize poverty. Consumers and producers, in this case, through education, changes in attitudes and cultural trends in the City of Kupang, are fighting the conditions of powerlessness and limitations that exist to revive the local economy.

In contrast to social factors, the results of data processing show that technology has no effect on MSME resilience and minimizes poverty. According to (Lejap et al., 2021; Sulistyono et al., 2022) with current technological advancements, MSMEs take advantage of it by expanding market access to promote their production results. Various existing social media are used by MSME actors to be able to introduce their products which of course have good quality. Likewise with Ramadhani and Arifin's research where Information Communication Technology (ICT) is based on e-commerce as a marketing medium (Ramadhani and Arifin, 2013). Furthermore, like Pasaribu's research, by expanding market access using online media, advertising, direct marketing, sales promotion, E-WOM, and public relations can be well (Lopes Amaral & Wutun, 2022; Rensink, 2013; Watu et al., 2023). MSME actors in the City of Kupang admit that marketing promotion messages still have a greater impact if done face to face. The inactive use of technology in MSME business activities shows that technology does not have a significant role in minimizing existing poverty. In transactions at food SMEs in Kupang City, the promotional model using word of mouth (WOM) still occupies the top position, especially in influencing consumer behavior as stated by (Cheung & Lee, 2012; Kotler & Keller, 2016; Lee et al., 2012; Yap et al., 2013)

Furthermore, environmental factors are stated to have an effect on MSME Resilience and Minimizing Poverty. PESTEL analysis generally aims to assess growth potential that is oriented towards the income impact of an object which is analyzed as a marko-economic aspect that supports program evaluation during planning, underway and after it is carried out in order to identify potential that will occur (Chege & Wang, 2020). The environment is a positive variable in making strategic business progress decisions including MSMEs (Badulescu, 2010). The opinion

above is in line with the results of this study which shows that the environment has a positive effect on the resilience of food SMEs in Kupang City. The environment, in this case, is a factor in poverty alleviation efforts which comprehensively cover various aspects of people's lives, and are implemented in an integrated manner. This comprehensive measure was able to reduce the poverty rate and provide space for employment opportunities in the Province of NTT.

CONCLUSION

The existence of food SMEs in Kupang City is able to move the wheels of the community's economy. The impact is not only seen in business profits but also the fulfillment of consumer needs and the absorption of labor. The existence of MSMEs can be a driving force for minimizing poverty. In Kupang City - NTT Province, the factors driving the resilience of MSMEs which then affect the reduction in the poverty rate are economic, social and environmental factors. Meanwhile, political and technological factors within the PESTEL framework have no effect on the resilience of MSMEs and efforts to minimize poverty through empowering MSMEs. The absence of provincial government regulations and the widespread use in transaction activities from both the producer and consumer perspectives are the main reasons.

Based on the results of this study, the advice that can be given to future researchers is to research from other MSME sectors such as tourism considering that currently NTT is one of the international tourism areas. What is also interesting to study is to explore why the provincial government has not stipulated regulations regarding MSMEs, even though MSMEs are the cogs of the national economy.

References

- Anggraini, D., & Nasution, S. H. (2013). Peranan KUR Bgai Pengembangan UMKM Di Kota Medan. *Jurnal Ekonomi Dan Keuangan*, 1(3), 105-116.
- Badulescu, D. (2010). SMEs Financing: The Extent of Need and the Responses of Different Credit Structures. *Theoretical and Applied Economics*, 17(7), 25-36. <http://www.ectap.ro/theoretical-and-applied-economics-archive/%0Ahttp://search.ebscohost.com/login.aspx?direct=true&db=eoh&AN=1154213&site=ehost-live>
- Chege, S. M., & Wang, D. (2020). The impact of entrepreneurs' environmental analysis strategy on organizational performance. *Journal of Rural Studies*, 77(April), 113-125. <https://doi.org/10.1016/j.jrurstud.2020.04.008>
- Cheung, C. M. K., & Lee, M. K. O. (2012). What drives consumers to spread electronic word of mouth in online consumer-opinion platforms. *Decision Support Systems*, 53(1), 218-225. <https://doi.org/10.1016/j.dss.2012.01.015>
- Hair, J. F., Black, W. C., Babin, B. J., & Anderson, R. E. (2010). *Multivariate Data Analysis* (7th ed). Pearson Prentice Hall.
- Hair, J. F., Risher, J. J., Sarstedt, M., & Ringle, C. M. (2019). When to Use and How to Report The Results of PLS-SEM. *European Business Review*, 31(1), 2-24. <https://doi.org/10.1108/EBR-11-2018-0203>
- Husniyah, A., Basyah, N. A., & Mustofa, A. (2022). Dampak Usaha Mikro Kecil dan Menengah (UMKM) Terhadap Pengentasan Kemiskinan dan Pengangguran di Kota Sibolga. *Economica Didactica*, 2(1), 2354-6360.
- Korber, S., & McNaughton, R. B. (2018). Resilience and entrepreneurship: a systematic literature review. *International Journal of Entrepreneurial Behaviour and Research*, 24(7), 1129-1154. <https://doi.org/10.1108/IJEBR-10-2016-0356>
- Kotler, P., & Keller. (2016). *Marketing Management*. Pearson.
- Kraja, Y., & Osmani, D. (2013). Competitive Advantage And Its Impact In Small And Medium Enterprises (Smes) (Case Of Albania). *European Scientific Journal*, 9(16), 1857-7881. <https://doi.org/10.19044/esj.2013.v9n16p>
- Lee, D., Kim, H. S., & Kim, J. K. (2012). The role of self-construal in consumers' electronic word of mouth (eWOM) in social networking sites: A social cognitive approach. *Computers in Human Behavior*, 28(3),

- 1054–1062. <https://doi.org/10.1016/j.chb.2012.01.009>
- Lejap, H. H. T., Amaral, M. A. L., Goetha, S., Watu, E. G. C., & Fallo, A. (2021). Determinant Factors of Mobile Banking Usage: Case Study in Kupang, East Nusa Tenggara. *Jurnal REP (Riset Ekonomi Pembangunan)*, 6(2), 232–250. <https://doi.org/10.31002/rep.v6i2.5457>
- Lewokeda, A. (2020). Ribuan UMKM di NTT terdampak covid-19. *Antara News*.
- Lopes Amaral, M. A., & Wutun, M. B. M. G. (2022). Penggunaan Teori Biaya Transaksi Dalam Perilaku Pembelian Online. *JMBI UNSRAT (Jurnal Ilmiah Manajemen Bisnis Dan Inovasi Universitas Sam Ratulangi)*, 9(1), 30–41. <https://doi.org/10.35794/jmbi.v9i1.36605>
- Nasution, D. P., & Burhanuddin. (2023). Analisis Eksistensi UMKM dalam Mengurangi Tingkat Kemiskinan di Indonesia. *Edunomika*, 07(01), 104–116.
- Nindita, C., & Siregar, S. V. (2013). Analisis Pengaruh Ukuran Kantor Akuntan Publik Terhadap Kualitas Audit di Indonesia. *Jurnal Akuntansi Dan Keuangan*, 14(2), 91–104. <https://doi.org/10.9744/jak.14.2.91-104>
- Provinsi, B. P. S., & Tenggara, N. (2014). *TIMUR TAHUN 2014*.
- Rensink, J. . (Maarten). (2013). *What motivates people to write online reviews and which role does personality play ? July*.
- Safari, A., & Saleh, A. S. (2020). Key determinants of SMEs' export performance: a resource-based view and contingency theory approach using potential mediators. *Journal of Business and Industrial Marketing*, 35(4), 635–654. <https://doi.org/10.1108/JBIM-11-2018-0324>
- Sulistyo, A., Yudiandri, T. E., Ernawati, H., & Adiarto. (2022). Literasi Digital Pelaku UMKM dalam Upaya Menciptakan Bisnis Berkelanjutan. *Jurnal Komunikasi Pemberdayaan*, 1(2), 87–103. <https://doi.org/https://doi.org/10.47431/jkp.v1i2.197>
- Watu, E. G. C., Niha, S. S., & Amaral, M. A. L. (2023). Feel of Loyalty For OVO Users in Kupang City. *Jurnal Ekonomi*, 11(03), 1496–1501. <http://ejournal.seaninstitute.or.id/index.php/Ekonomi/article/view/489/749>
- Yap, K. B., Soetarto, B., & Sweeney, J. C. (2013). The relationship between electronic word-of-mouth motivations and message characteristics: The sender's perspective. *Australasian Marketing Journal*, 21(1), 66–74. <https://doi.org/10.1016/j.ausmj.2012.09.001>
- Župerkienė, E., Šimanskienė, L., Labanauskaitė, D., Melnikova, J., & Davidavičienė, V. (2021). The COVID-19 Pandemic and Resilience of SME's in Lithuania. *Entrepreneurship and Sustainability Issues*, 8(3), 53–65. [https://doi.org/10.9770/jesi.2021.8.3\(4\)](https://doi.org/10.9770/jesi.2021.8.3(4))