



KEMENTERIAN PENDIDIKAN, KEBUDAYAAN,  
RISET, DAN TEKNOLOGI  
INSTITUT TEKNOLOGI SEPULUH NOPEMBER  
FAKULTAS SAINS DAN ANALITIKA DATA

Gedung Rektorat Lantai 3, Kampus ITS Sukolilo Surabaya 60111  
Telepon: 031-5924930 Ext. 1186, 1187 Fax: 031-5945813  
<http://www.its.ac.id/>, email: [scientics@its.ac.id](mailto:scientics@its.ac.id)

## SURAT KETERANGAN

No. : T/83707 /IT2.IX.1./TU.00.08/2021

Fakultas Sains dan Analitika Data Institut Teknologi Sepuluh Nopember Surabaya, dalam hal ini Fakultas menerangkan telah selesai melakukan pemeriksaan duplikasi dengan membandingkan artikel-artikel lain menggunakan perangkat lunak *iThenticate* pada tanggal 9 Desember 2021 atas karya ilmiah,

Judul : Structural Equation Modeling on Decision Making in Understanding Disasters in Maluku  
Penulis : Bambang Widjanarko Otok, Koentjoro Soeparno, Intan Rahmawati, Harun Al Azies, Isnawati.  
Jurnal /Prosiding/Buku : The 6th International Conference on Basic Sciences 2020 (ICBS 2020). AIP Conf. Proc. 2360, 020003-1–020003-8; <https://doi.org/10.1063/5.0059539>. Published by AIP Publishing. 978-0-7354-4116-3/\$30.00  
Nomer Pemeriksaan : 2021.01.408

dengan hasil

**1. Tingkat kesamaan keseluruhan : 13%**  
**2. Tingkat kesamaan individual maximum : 5%**

Demikian surat keterangan ini dibuat untuk digunakan sebagaimana mestinya.

Surabaya, 24 Desember 2021

Dekan



Prof. Hamzah Fansuri, S.Si., M.Si., Ph.D

NIDN 19691017 199412 1 001

Tembusan :

1. Kabag Administrasi Umum dan Kearsipan Digital
2. Arsip

# 02\_2021\_Structural equation modeling on decision making in understanding disasters in Maluku.pdf

*By Bambang Widjanarko Otok*

# Structural Equation Modeling on Decision Making in Understanding Disasters in Maluku

Bambang Widjanarko Otok<sup>1,a)</sup>, Koentjoro Soeparno<sup>2)</sup>, Intan Rahmawati<sup>3)</sup>, Harun Al Azies<sup>1)</sup> and Isnawati<sup>4)</sup>

<sup>1</sup>*Department of Statistics, Faculty of Science and Data Analytics, Institut Teknologi Sepuluh Nopember, Jalan Raya ITS Kampus Sukolilo 60111 Surabaya, Indonesia*

<sup>2</sup>*Department of Psychology, Faculty of Psychology, Universitas Gadjah Mada, Jalan Humaniora Bulaksumur 55281 Yogyakarta, Indonesia*

<sup>3</sup>*Department of Psychology, Faculty of Social and Political Science, Universitas Brawijaya, Jalan Veteran 65145 Malang, Indonesia*

<sup>4</sup>*Health Polytechnic of Banjarmasin, Ministry of Health, Jalan Mistar Cokrokusumo No. 1A, Kota Banjarbaru, 70714, Indonesia*

<sup>a)</sup>Corresponding author: [bambang\\_wo@statistika.its.ac.id](mailto:bambang_wo@statistika.its.ac.id), [dr.otokbw@gmail.com](mailto:dr.otokbw@gmail.com)

**Abstract.** Maluku is a region in eastern Indonesia that is prone to natural disasters. The Indonesian people must be aware of and understand all the forms of disasters that are occurring. Understanding disasters will facilitate disaster risk reduction and management. This research [16](#) be performed using a quantitative approach that emphasizes the respondent experience of disaster survivors with the Structural Equation Modeling (SEM) method. The results show that the SEM model for disaster preparedness decision making is an adjustment model. Internal and external factors have a positive effect on the understanding of decision making based on a rational style and an intuitive style. External factors along with policy indicators dominate the understanding of intuitive style alert decision making

## INTRODUCTION

Geologically, Indonesia is a country that is a meeting place for three active tectonic plates in the world, [14](#) mely the Indo-Australian Plate, the Eurasian Plate, and the Pacific Plate. This situation puts Indonesia at risk of natural disasters such as earthquakes and tsunamis, and many active volcanoes also offer the potential for [4](#) volcanic eruptions. Eastern Indonesia, like Maluku, is a region prone to natural disasters. Along the same lines, the United Nations Office for [4](#) Disaster Risk Reduction (UNDRR) said Indonesia was the most disaster-prone country in the world. Potential natural disasters such as volcanic eruptions, earthquakes, floods, landslides, eddies, and other natural events are things that require attention due to the nature of their sudden onset.

Indonesia's threat to natural disasters certainly demands that the Indonesian people be aware of natural disasters. Sabir and Phil [1] in their research explained that the reality of disasters is a time of tension and also a crisis that arises due to the relationship between humans and others, with nature and the environment. These difficulties in understanding disasters then lead individuals to interpret various responses to disasters. One of them is the decision-making process to understand the disaster as preparation. Almost every day, individuals are subject to a decision-making process. Like the results of Wardyaningrum's research [2] which concluded that after the eruption of Mount Merapi, the community experienced changes in more innovative modes of communication. The Merapi community decided to form a group communication, to prepare a more comprehensive communication tool, to be open to information submitted by government or official agencies, to communication which determines decision-making in the process of evacuation. Other findings that show the importance of decision making in disaster preparedness are also evident from the research of Utomo et al. [3] which shows individual decision making to seek to improve

tsunami disaster preparedness by participating in tsunami disaster simulations and socialization, establishing disaster prepared school communities, providing material knowledge on disasters, prepare an emergency response plan for a tsunami.

The above description shows that the variables that influence the community in making disaster preparedness decisions involve latent variables with indicators. The statistical method which can analyze the relationship model between variables which consists of many indicators: SEM Structural Equation Modeling (SEM) is a multivariate statistical method that combines regression analysis, factor analysis, and path analysis. SEM is one of the techniques for creating causal models because its principle of operation is to test a model that is built between endogenous and exogenous variables, where each endogenous and exogenous variable can be in the form of latent or constructs built from several manifest variables or indicators [4].

Several studies related to SEM, Otok et. al., [5], weak physical condition, social economy less prosperous, and the emergence of a degenerative disease that can lead to decreased productivity, thus affecting social life, it is necessary to study the quality of life index of elderly global, urban and coastal communities in Surabaya. Setiawati [6] researched the strategy of developing a sustainable wastewater network infrastructure using the SEM method. Also, Rizal [7] applied SEM to the study of coastal communities' perceptions of the tsunami disaster for residents of Bengkulu City.

From this description, further research must be conducted on a strategic model for disaster preparedness decisions in the population of Maluku, given that the Moluccas region is a region of eastern Indonesia. Prone to natural disasters, moreover the understanding of disasters is still vague. This study aims to understand the pattern or form of decision-making strategies in disaster preparedness in the Maluku community, therefore a research method is needed to study the indicators and variables that influence decision-making in disaster preparedness in the Maluku community, which are then compiled into a theoretical model. It will be proven by field data that this is a data-driven model. This study should provide information on the influence of internal and external factors in disaster preparedness decision making in a rational and intuitive style.

## EXPERIMENT

### Data and Method

The data used in this study is primary data in the form of survey data on disaster survivors in Maluku. The sampling technique used was simple random sampling and data collection was done using a questionnaire sheet. The research variables used include 4 latent variables and 18 indicators. The full framework of the research concept and the research variables are presented below

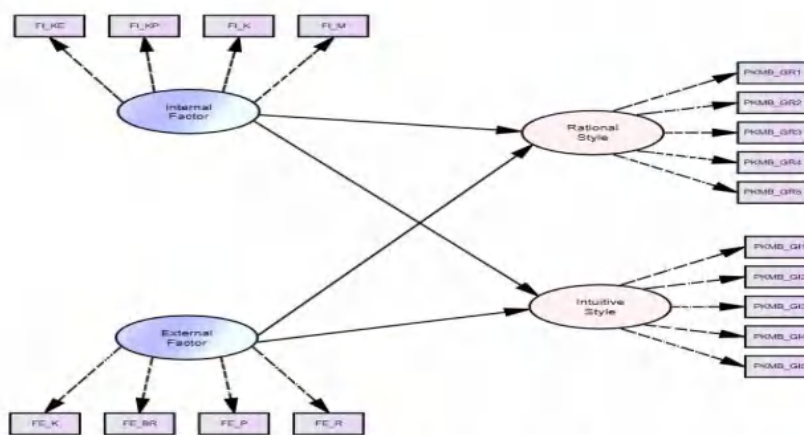


FIGURE 1. The conceptual framework for rational and intuitive decision making

This study uses two exogenous latent variables (internal factors and variables of external factors and two endogenous latent variables (rational style and intuitive style variables). In more detail, the variables used in this study are as follows:

**TABLE 1. Research variables.**

Latent variable	Manifest Variable
Internal Factor	Emotional Maturity (FI_KE)
	Personal Abilities (FI_KP)
	Personality (FI_K)
	Motivation (FI_M)
External Factor	Policy (FE_K)
	Risk amount (FE_BR)
	Experience (FE_P)
Rational Style	Religiosity (FE_R)
	Postpone the decision if there are no reasonable reasons (PKMB_GR1)
	Rational in decision making (PKMB_GR2)
	Not doing a complicated enough analysis of the existing information (PKMB_GR3)
	More concerned with the speed of decision-making and supported by the collection of adequate data (PKMB_GR4)
Intuitive Style	Make sure I made the right decision (PKMB_GR5)
	Use instinct or instinct to decide (PKMB_GI1)
	Sponianeous choice, without too much consideration (PKMB_GI2)
	Do something immediately instead of sitting down to contemplate something (PKMB_GI3)
	Decided already on the hack of the head (PKMB_GI4)
Make decisions without spending too long (PKMB_GI5)	

The steps of the analysis performed include evaluation of measurement models, evaluation of structural models, and goodness of fit. The evaluation of the measurement model, uamely convergent validity, makes it possible to determine the correlation between each indicator and its latent variable. The convergent validity can be seen from the value of the standard load factor ( $\lambda$ ) greater than 0.5, which is still acceptable [8]. Composite reliability is an indicator block that measures a construct and can be assessed by measuring its internal consistency. Composite reliability can be accepted if the confidence level of the latent variable is greater than 0.7, with the following Equation 1.

$$C - R = \frac{\left( \sum_{k=1}^{K_j} \lambda_{jk} \right)^2}{\left( \sum_{k=1}^{K_j} \lambda_{jk} \right)^2 + \sum_{k=1}^{K_j} (1 - \lambda_{jk})^2} \quad (1)$$

The evaluation of structural modeling using SEM uses the following steps.

1. Obtain models based on concepts and theories to design structural models (relationships between latent variables) and measurement models (relationships between indicators and latent variables) based on problem formulations and literature reviews.
2. Create a path diagram (path diagram) that explains the pattered of relationships between latent variables and their indicators.
3. Convert the path diagram to equations.
4. Evaluate the measurement model by examining its validity and reliability.
5. Evaluate the suitability of the model, ie the goodness of the fit, to see the quality of the model according to existing criteria. Thus, from these criteria, an appropriate model will be obtained.
6. Interpret the model and conclude.

## RESULTS AND DISCUSSION

### Descriptive Statistics

This description aims to determine how respondents react to research variables regarding internal factors, external factors, decision-making to understand disasters in a rational and intuitive style. More detailed descriptive statistics of the research variables are presented in Table 2. The results in Table 2 show that in decision-making, respondents from Ambon, Liang, and Rohmoni regions on average use an intuitive decision-making style. Meanwhile, respondents in the Kabauw region on average use rational decision-making styles. Respondents from Ambon, Tial, Rohmoni, and Kabauw tended to pay attention to external factors in decision making, while respondents from Liang Tengah tended to pay attention to internal and external factors in decision making. An external factor, namely policy, is a dominant factor in decision making in disaster preparedness in Ambon, Liang, and Kabauw. For the Tial region, the dominant external factor for the individual is religiosity and the magnitude of the risk factor is the external factor that dominates the response in the Rohmoni region. Meanwhile, individual factors related to disaster decision making include personal ability as a dominant factor for respondents in Ambon, Tial, Rohmoni, and Kabauw, while personality factors are factors in individuals related to disaster decision-making dominating the response in the Liang area.

**TABLE 2.** Distribution of descriptive statistics of the characteristics of respondents

Indicator	Territory									
	5 Ambon		Tial		Liang		Rohmoni		Kabauw	
	Mean	StDev	Mean	StDev	Mean	StDev	Mean	StDev	Mean	StDev
Internal Factor	3.506	1.259	3.514	1.238	3.494	1.316	3.524	1.151	3.498	1.266
Emotional Maturity (FI_KE)	3.345	1.311	3.555	1.254	3.475	1.213	3.32	1.3	3.065	1.395
Personal Abilities (FI_KP)	3.875	1.250	3.745	1.267	3.605	1.391	4.01	1.073	4.11	1.207
Personality (FI_K)	3.475	1.173	3.31	1.122	3.64	1.220	3.43	0.966	3.53	1.261
Motivation (FI_M)	3.330	1.302	3.445	1.309	3.255	1.439	3.335	1.266	3.285	1.200
External Factor	3.748	1.256	3.769	1.206	3.496	1.362	3.915	1.237	3.809	1.158
Policy (FE_K)	3.905	1.177	3.865	1.222	3.58	1.338	4.055	1.106	4.115	0.972
Risk amount (FE_BR)	3.83	1.266	3.865	1.263	3.475	1.324	4.125	1.204	3.86	1.205
Experience (FE_P)	3.425	1.264	3.295	1.156	3.555	1.323	3.4	1.341	3.435	1.239
Religiosity (FE_R)	3.83	1.316	4.050	1.181	3.375	1.462	4.08	1.298	3.825	1.215
Rational Style (PKMB_RG)	3.308	1.309	3.437	1.199	3.094	1.395	3.334	1.266	3.416	1.224
Postpone the decision if there are no reasonable reasons (PKMB_GR1)	3.79	1.189	4.24	.983	2.95	1.201	4.03	1.108	3.95	1.061
Rational in decision making (PKMB_GR2)	3.83	1.309	3.92	1.278	3.46	1.520	4.28	.914	3.68	1.347
Not doing a complicated enough analysis of the existing information (PKMB_GR3)	3.03	1.287	3.43	.959	2.54	1.406	3.06	1.472	3.10	1.150
More concerned with the speed of decision-making and supported by the collection of adequate data (PKMB_GR4)	2.95	1.449	2.73	1.407	3.11	1.468	2.44	1.423	3.47	1.339
Make sure I made the right decision (PKMB_GR5)	2.94	1.312	2.62	1.139	3.41	1.384	2.86	1.417	2.88	1.223
Intuitive Style (PKMB_R1)	3.406	1.315	3.437	1.199	3.352	1.272	3.47	1.359	3.37	1.264
Use instinct or instinct to decide (PKMB_G11)	3.73	1.283	3.73	1.194	3.92	1.038	4.08	1.052	3.25	1.613
Spontaneous choice, without too much consideration (PKMB_G12)	3.16	1.153	3.16	1.093	3.05	1.224	3.08	1.339	3.32	.971
Do something immediately instead of sitting down to contemplate something (PKMB_G13)	3.71	1.426	3.68	1.415	3.46	1.520	3.83	1.521	3.85	1.272

TABLE 2. Distribution of descriptive statistics of the characteristics of respondents (continued)

Indicator	Territory									
	Ambon		Tial		Liang		Rohmoni		Kabauw	
	Mean	StDev	Mean	StDev	Mean	StDev	Mean	StDev	Mean	StDev
Decided already on the back of the head (PKMB_G14)	2.86	1.311	2.81	1.351	2.76	1.342	2.69	1.451	3.15	1.099
Make decisions without spending too long (PKMB_G15)	3.57	1.402	4.05	1.177	3.57	1.237	3.67	1.434	3.05	1.568

**Results of the SEM (Structural Equation Modeling) analysis**

After the data description is done using descriptive statistics, the structural equation modeling is compiled, first performing a validity and reliability test. In detail, the validity and reliability of each latent variable are presented in Tables 3 and 4.

TABLE 3. Results of the evaluation of the validity of the measurement model Step 1

Variable	Indicator	Loading Factor	Variable	Indicator	Loading Factor
Internal Factor	FI_KE	0.831	External Factor	FE_R	0.826
	FI_KP	0.839		FE_P	0.619
	FI_K	0.871		FE_BR	0.768
	FI_M	0.871		FE_K	0.856
Rational Style	PKMB_GR1	0.608	Intuitive Style	PKMB_G11	0.828
	PKMB_GR2	0.613		PKMB_G12	0.330*
	PKMB_GR3	0.735		PKMB_G13	0.527
	PKMB_GR4	0.669		PKMB_G14	0.334*
	PKMB_GR5	0.348*		PKMB_G15	0.693

Note: \*) Invalid loading factor value <0.5

From Table 3, it is known that there are several indicators to measure latent variables that are not valid, so they need to be reduced from the conceptual model. The results are presented in Table 4, it can be seen that all the indicators have latent variables validly measured.

Table 4 shows that the latent variables Internal Factor, External Factor, Rational Style, and Intuitive Style provide a loading factor and that the CR value is above the cutoff value so that it can be considered valid and reliable. Likewise, for each indicator, all the variance errors of the p-value are less than 0.05, so we say that all the indicators are reliable.

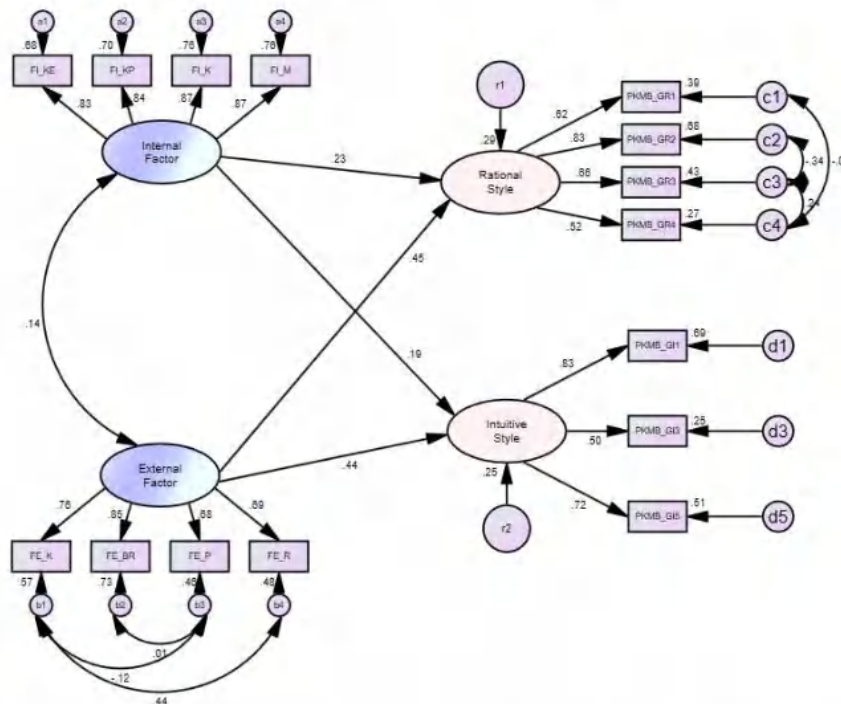
TABLE 4. Results of the assessment of the validity of the measurement model Step 2

Variable	Indicator	p variance error	Loading Factor ( $\lambda$ )	$\lambda^2$	$I - \lambda^2$	Composite Reliability (C-R)
Internal Factor	FI_KE	0.000	0.827	0.684	0.316	0.914
	FI_KP	0.007	0.839	0.704	0.296	
	FI_K	0.000	0.874	0.764	0.236	
	FI_M	0.000	0.870	0.757	0.243	
External Factor	FE_R	0.000	0.693	0.480	0.520	0.835
	FE_P	0.000	0.679	0.461	0.539	
	FE_BR	0.000	0.855	0.731	0.269	
	FE_K	0.000	0.755	0.570	0.430	
Rational Style	PKMB_GR1	0.000	0.624	0.389	0.611	0.757
	PKMB_GR2	0.008	0.826	0.682	0.318	
	PKMB_GR3	0.000	0.658	0.433	0.567	
	PKMB_GR4	0.000	0.523	0.274	0.726	
Intuitive Style	PKMB_G11	0.001	0.831	0.691	0.309	0.732
	PKMB_G13	0.000	0.503	0.253	0.747	
	PKMB_G15	0.000	0.717	0.514	0.486	

Step 2 is to test several prerequisites that must be met in structural modeling, namely the normal multivariate assumption, absence of multicollinearity, singularity, and absence of outliers. The results of the tests for normality of the data on all research

variables gave a multivariate critical ratio value of 1.602 and this value is outside of -1.96 to 1.96, so it can be said that the data has a multivariate non-normal distribution. The singularity can be seen through the determinant of the covariance matrix. The results of this study provide a determinant of the sample covariance matrix value of 0.139. This value is not close to zero, so we can say that there is no singularity problem in the analyzed data. Multicollinearity can be seen through the correlation between the latent variable Internal Factor and External Factor of 0.081 with  $p = 0.029$  greater than the significance level  $\alpha = 0.05$ , we can say that there is no multicollinearity. Outliers are observations that result in univariate or multivariate extreme values. The results of the outlier test in this study are presented at a distance of  $d$  squared Mahalanobis. Mahalanobis values greater than the chi-square table or  $p1$  values  $< 0.001$  are considered outliers. In this study, there are no data with  $p1 < 0.001$ , so we can say that there are no outliers.

After obtaining all valid metrics, the next step is to perform a structural model analysis to determine the relationship between the latent variables. In this analysis, there are 2 prediction models, namely the internal factors and the external factors which affect the rational style and the intuitive style. The SEM prediction model is shown in Figure 2



**FIGURE 2.** Relationship model Internal factor, external factor against decision making Understand the disaster with a rational style and an intuitive style

The results of the comprehensive decision-making test to understand disasters in Maluku with the AMOS program are shown in Table 5 below

7 TABLE 5. Results of the decision-making model test for understanding disasters in Maluku			
Goodness of Fit (GoF)	Cut-off value	Calculation results	Information
Chi-Square	≤ Chi-Square Table	128.159	$\chi^2$ where $df = 74$ is 95.0815
Significance Probability	≥ 0,05	0.000	Pretty good
RMSEA	≤ 0,08	0.070	Good
GFI	≥ 0,90	0.907	Good
AGFI	≥ 0,90	0.850	Pretty good
CMIN/DF	≤ 2,00	1.732	Good
TLI	≥ 0,90	0.930	Good
CFI	≥ 0,90	0.951	Good



From the appropriate model, each path coefficient can be interpreted using the following structural Equation 2 and 3.

$$\text{Rotional Style} = 0.231 \text{ Internal Factor} + 0.452 \text{ External Factor}, R^2 = 25,2\% \quad (2)$$

$$\text{Intuitive Style} = 0.188 \text{ Internal Factor} + 0.441 \text{ External Factor}, R^2 = 28,6\% \quad (3)$$

Next comes the significance test between the latent variables by examining the relationship between four latent variables, namely the relationship between the internal factor and the external factor which has a significant effect on the rational style, then the internal factor and the external factor have a significant effect on the intuitive style. The estimated path coefficients and the importance of the relationship between the latent variables are shown in Table 6.

11

TABLE 6. Results of the decision-making model test for understanding disasters in Maluku

Exogenous Latent Variables → Endogenous Latent Variables	Coefficient	Critical Rasio (C.R.)	p-value
Internal Factor → Rational Style	0.231	2.481	0.013*
External Factor → Rational Style	0.452	3.722	0.000*
Internal Factor → Intuitive Style	0.188	2.073	0.038*
External Factor → Intuitive Style	0.441	4.208	0.000*

Note: →: influence, \*) Significant  $\alpha = 5\%$

2

Based on Table 6, Equation 18 and Equation (3), namely the direct effect of exogenous latent variables on endogenous latent variables, the interpretation of the path coefficient is as follows.

1. Internal and external factors for disaster preparedness decision making in a rational style  
Both internal and external factors have a positive effect on the rational style, namely 0.231 and 0.452. This can be seen from the positive sign path coefficient of 0.231 with a CR stood at 2.481 and obtained a significance probability (p) of 0.013 which is less than the significance level ( $\alpha$ ) which is determined to be 0.05 for internal factors. Meanwhile, the external factor can be seen from the path coefficient which is positive as large as 0.452 with a CR amounted to 3,722 and obtained a significance probability (p) of 0.000 which is smaller ( $\alpha = 0.05$ ). Thus, it means that if the internal and external factors move towards an increase, the disaster preparedness decision making for the people of Maluku with the rational style will increase.
2. Internal and external factors for disaster preparedness decision making in an intuitive style  
Internal and external factors have a positive effect on the intuitive style, namely 0.188 and 0.441. This can be seen from the positive sign path coefficient of 0.188 with a CR of 2.073 and a significance probability (p) of 0.038 is obtained which is less than the significance level ( $\alpha$ ) which is determined to be 0.05 for internal factors. While the external factors can be seen from the path coefficient which is positive as large as 0.441 with a CR stood at 4,208 and obtained a significance probability (p) of 0.000 which is smaller ( $\alpha = 0.05$ ). So, it means that if internal factors and external factors move towards an increase, then disaster preparedness decision making for the people of Maluku with an intuitive style will increase.

Armed with previous experiences of disasters, an intuitive decision-making style, such as an effort to survive, such as avoiding, resigning, and finding a comfortable place, is consistent with research by Hastie [9] which suggests that decision-making intuitive is a catch as a rapid reaction that produces actions in the form of avoidance, approach or adaptation based on experience or information previously obtained. Not only intuitive decision-making but rational decisions are also a form of self-resene as they know the extent of disaster risk they face while rushing into the mountains. Rotional decision-making is based on factors external to them, namely policy factors. Decision making begins with problem identification, goal setting, and problem analysis, development of various alternative solutions, evaluation of alternatives, choosing the best alternative, making decisions, up to at evaluation.

## CONCLUSION

This study concludes that the analysis of the structural model leads to a decision that internal and external factors have a positive effect on rational style and intuitive style, which means that if the indicators of internal and external factors evolve towards an increase, then disaster preparedness decision making for the people of Maluku with

Rational style and intuitive style will improve. The results of the model evaluation were also satisfied so that this model could be accepted to explain disaster preparedness decision making for the people of Maluku, influenced by internal and external factors. Intuitive decision making is a decision made as a quick reaction that results in actions in the form of avoidance, approach, or adaptation based on experience or information previously obtained. Rational decision making is based on external factors, namely policy

## REFERENCES

1. A. Sabir and M. Phil, *Jurnal Ilmu Ekonomi dan Sosial*, **5(3)**, 304-326 (2016).
2. D. Wardyaningrum, *Jurnal ASPIKOM*, **3(2)**, 179-197 (2014).
3. K. S. Utomo, C. Muryani, and S. Nugraha, *Jurnal Geo Eco*, **4(1)**, 68-76 (2018).
4. A. Ferdinand, "Structural Equation Modeling dalam Penelitian Manajemen", (Badan Penerbit Universitas Diponegoro, Semarang, 2002)
5. B.W. Otok, et al., *International Journal of Civil Engineering and Technology (IJCIET)* **9(12)**, 926-938 (2018).
6. E. Setiawati. et.al., *Procedia Environmental Sciences*, **17**, 685-692 (2018).
7. J. Rizal. et.al., *Jurnal Konvergensi*, **4(1)**, 13-26 (2014).
8. Wynne W. Chin, "The Partial Least Squares Approach to Structural Equation Modeling", edited by G. Marcoulides (Lawrence Erlbaum Associates, New Jersey, 1998), pp.295-336.
9. R. Hastie, *Annual Review of Psychology*, **52(2)**, 653-683 (2001).

# 02\_2021\_Structural equation modeling on decision making in understanding disasters in Maluku.pdf

---

ORIGINALITY REPORT

---

# 13%

SIMILARITY INDEX

---

PRIMARY SOURCES

---

- 1** "The Effect of Special Economic Zone and International Hub Port Development on the Transportation Infrastructure Provision", International Journal of Innovative Technology and Exploring Engineering, 2020  
Crossref 190 words — 5%
- 2** [www.savap.org.pk](http://www.savap.org.pk)  
Internet 58 words — 1%
- 3** Noper Ardi, Isnayanti. "Structural Equation Modelling-Partial Least Square to Determine the Correlation of Factors Affecting Poverty in Indonesian Provinces", IOP Conference Series: Materials Science and Engineering, 2020  
Crossref 37 words — 1%
- 4** "Disaster Risk Reduction in Indonesia", Springer Science and Business Media LLC, 2017  
Crossref 26 words — 1%
- 5** [www.ncbi.nlm.nih.gov](http://www.ncbi.nlm.nih.gov)  
Internet 20 words — 1%
- 6** Jihong Chen, Yijie Fei, Zheng Wan, Zaili Yang, Haobo Li, Kyoung-Suk Choi, Xiaoke Xie. "Allometric relationship and development potential comparison 19 words — < 1%

of ports in a regional cluster: A case study of ports in the Pearl River Delta in China", Transport Policy, 2020

Crossref

- 
- 7 Dimas Ari Darmantyo, Ratno Ratno, Yustiana Wardhani. "Increasing the competitiveness of Rural Banks through an innovation approach in Bogor District", The Management Journal of Binaniaga, 2020  
18 words — < 1%  
Crossref
- 
- 8 [www.scitepress.org](http://www.scitepress.org)  
Internet  
17 words — < 1%
- 
- 9 Chen, Xiaohong. "Developing a Third Party Investment Partnership Framework to Encourage Low Carbon Building Projects in China", University of Northumbria at Newcastle (United Kingdom), 2020  
16 words — < 1%  
ProQuest
- 
- 10 [id.123dok.com](http://id.123dok.com)  
Internet  
15 words — < 1%
- 
- 11 Asian Journal on Quality, Volume 10, Issue 2 (2012-08-06)  
Publications  
14 words — < 1%
- 
- 12 Ilyas Masudin, Nika Tampi Safitri, Dian Palupi Restuputri, Rahmad Wisnu Wardana, Ikhlasul Amallynda. "The effect of humanitarian logistics service quality to customer loyalty using Kansei engineering: Evidence from Indonesian logistics service providers", Cogent Business & Management, 2020  
13 words — < 1%  
Crossref
- 
- 13 Haskas, Yasir, and . Mujahid. "Competency-Based Achievement: Case study on Lecturer of Health  
11 words — < 1%

14 Setiawati, Endang, Suprihanto Notodarmojo, Prayatni Soewondo, Agus Jatnika Effendi, and Bambang Widjanarko Otok. "Infrastructure Development Strategy for Sustainable Wastewater System by using SEM Method (Case Study Setiabudi and Tebet Districts, South Jakarta)", Procedia Environmental Sciences, 2013.

10 words — < 1%

Crossref

15 Bahtiar, S A Adjisasmitta, M I Ramli, M Pasra. "Model influence means operational performance on the port of Jayapura", IOP Conference Series: Earth and Environmental Science, 2020

8 words — < 1%

Crossref

16 International Journal of Contemporary Hospitality Management, Volume 26, Issue 6 (2014-09-16)

8 words — < 1%

Publications

17 Kopot, Caroline. "Customers' Perspectives of Omnichannel Retailing in Fashion Department Stores.", University of Georgia, 2020

8 words — < 1%

ProQuest

18 Sukaris, Joko Suyono, Damarsari Ratnasahara Elisabeth. "Influence of Tourist Experience On Tourist Destinations Against Loyalty Through The Value of Traveling", Journal of Physics: Conference Series, 2020

8 words — < 1%

Crossref

19 www.scribd.com

8 words — < 1%

Internet

20 Philip J. Davis, John L. Reeves, Barbara A. Hastie, Steven B. Graff-Radford, Bruce D. Naliboff.

6 words — < 1%

# "Depression Determines Illness Conviction and Pain Impact: A Structural Equation Modeling Analysis", Pain Medicine, 2000

Crossref

---

EXCLUDE QUOTES ON

EXCLUDE MATCHES OFF

EXCLUDE BIBLIOGRAPHY ON