

Causality Analysis Of Suburban Poverty: Socio-Anthropological And Development Policy Approaches

Yulian Junaidi¹, Fahrurrozie Sjarkowi², Sriati², Amruzi Minha²

Abstract

This study aims to analyze the potential existence of socio-anthropological factors in the form of socio-entropy and economic development factors that cause poverty in Palembang sub-urban residents. The number of respondents was 120 respondents consisting of 30 farmers from Gandus Sub-district and 90 farmers from Pulo Kerto Sub-district. Data analysis using Structural Equation Modeling (SEM) PLS 3.2. The results of this study show that if poverty is to be addressed, there is not enough technology, and not enough just top-down policies, so it is necessary to pay attention to justice as illustrated by dualism and negligence in development taken from the curse of natural resources. The factors that influence poverty are variables between dualism, socio-entropy and agricultural involution. Natural resource curse variables and economic dualism indirectly affect poverty, while the variables of the agricultural revolution do not affect poverty. The results of this study imply that there is a negative relationship between the curse of natural resources, social entropy, and revolution. This means that if the socio-entropy condition is higher, the revolution is lower so that the poverty rate becomes high. There is a negative relationship between the curse of natural resources, revolution, and poverty. It means that the higher the curse of natural resources, the lower the revolution and the higher the poverty rate.

Keyword: resource curse, dualism economic, poverty, agricultural involution

INTRODUCTION

The poverty of urban residents in Indonesia is mostly in sub-urban areas and some of them earn their livelihood in agriculture (Central Bureau of Statistics of Palembang City, 2023). The location of this research is in a suburban area, where there are always three forms of threats to farming area; (1) Become a target for potential investors who need business locations for various industries, including agro-industry; (2) Become a residential target for residents related to urbanization and the need for shophouses, especially by housing complex developers; (3) So the function is changed to economic infrastructure, such as roads and industrial areas in accordance with Regional Government regulations. Poverty in a region occurs due to processes of marginalization and development policies (Olarde Susana H, 2018). Poverty still occurs in Indonesia, unemployment is a factor in poverty (Syamsuddin et al, 2023), and line of poverty determined based on minimum consumption standards spent on household income (Gazeley dan Verdon, 2012).

¹ PhD Student Agriculture Science, Departement of Social Economy, Faculty of Agriculture, Universitas Sriwijaya, Palembang-Prabumulih Street KM 32, Indralaya South Sumatra, Indonesia.

² Departement of Social Economy, Faculty of Agriculture, Universitas Sriwijaya, Jalan Palembang-Prabumulih KM 32, Indralaya South Sumatra, Indonesia.

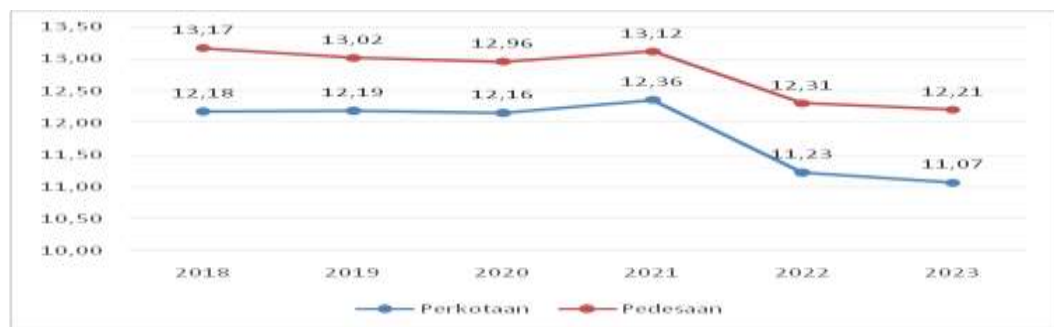


Figure. 1

Based on the picture, it can be seen that from year to year the number of poor people in South Sumatera Province continues to decline, but in several areas, poverty is still high, one of which is in the city of Palembang. In March 2023 the number of poor people (people with monthly per capita expenditure below the poverty line) in Palembang City reached 179.45 thousand people (10.22 percent). Most of the poor residents live in suburban areas that are still agricultural. In this regard, this research plan will deliberately examine by selecting a development process that characterizes the process of small-scale regional development transformation but has micro-economic characteristics of regional development transformation that is characterized by urban agro-industry but can have an impact on the traditional agricultural sector which is also still dominant. Viewed from an agricultural economics perspective, the term development is nothing more than a planned effort to utilize the potential of natural resources and human resources in the agricultural sector in order to create jobs and infrastructure to accelerate the increase in economic prosperity and inner and outer peace, which strengthens the economic fundamentals of the unity of the Republic of Indonesia's. (Sjarkowi, 2022).

Development economic theory has long reminded scholars and observers that poverty is related to the 4-cluster of economic condition (Lipton, 1977; Davis et al, 2015; Nupur and Dutta, 2023; Jiayue Lue et al, 2021 and Kouadio, 2022): (1) Top-down development economic strategy (Chen et al, 2021); (2) limited financial services to rural areas (Kumar, 2023 and Widyastuti et al, 2022); (3) Development strategies and political economies are less in favor of staple food commodities; (4) The nature of the development program does not fully lift the human resource capacity and rural development. The orientation of large-scale investment that quickly produces ordinary results is the best choice of the government so that the 4-cluster of development condition are extremely vulnerable to triggering a pair of development conditions and climates, including (1) The economic climate of "Boeke-style economic dualism" (2) The economic condition of the "Curse of Natural Resources Wealth" which does not increase people's welfare (Jakson, 1999 and Destek et al, 2023).

Indonesia's economic development as a country rich in natural resources has taken place throughout the country which is adjusted to the potential and needs of six development corridors (MP3EI in accordance with the provisions of Presidential Decree No.32/2011). Although development has been carried out in these various corridors, the problem of farmer poverty is still among economic growth caused by three errors in development policies (Davis et al, 2015; Nupur and Dutta, 2023; Jiayue Lue et al, 2021 and Kouadio, 2022), namely: (1) Negligence triggers the role of agribusiness in seizing added value and reducing the pressure of the man-land ratio which is rising and the burden of foreign debt is increasing. (2) Negligence in anticipating global market intimidation of agribusiness exchange rates which should be cut off through the strategic design of inter-island trade supported by spatially planned regional agribusiness development. (3) Negligence spurs investment in ecosystem-based agribusiness typical of regions by suppressing the delayed value component which often tends to be expensive due to geographical isolation (Sjarkowi and Supri, 2004; Sjarkowi, 2020).

This omission is often also associated with the issue of de-agriculturalization in natural resource-rich countries. A literature review on-resource curse or dutch disease conducted by Mien and Goujon (2022) found that the agricultural and agro-industrial sectors are ignored when natural resource harvests are abundant. This happens in various countries rich in oil, gas and mineral resources such as in Latin America, Africa, the Middle East, including in Indonesia. In addition, the direct impact of causal mechanisms identified in the dutch disease literature, the decline in the agricultural sector is also due to indirect causes such as high production costs, low productivity, international competition, and inadequate government investment.

Poverty can also be traced in the literature Economic Dualism, the initial originator who observed conditions in Indonesia was J.H. Boeke (1953) who saw the existence of two forms of economy that coexisted in Indonesia. In his view, Dutch colonialism introduced a capitalistic economic system to the earth of the archipelago which had a social system that was not inherent to these economic demands. On the other hand, the system did not see homo-ecomicus-characteristics in the DNA of indigenous Indonesians at that time. As a result of these differences comes economic dualism. On one hand was operated by Dutch colonials aided by ethnic Chinese, Indians and Arabs (Boeke, 1953; Ayesha. 2019; Aziz, 2021). On the other hand, Indonesian people run a traditional economy based on traditional agriculture, because of the complexity of this agricultural problem eventually leads to poverty. This is supported by data on the development of the number and percentage of Indonesia's population who are below the poverty line. This research hypothesizes that the curse of natural resources, economic dualism, socio entropy, agricultural involution and agricultural revolution affect poverty in the sub-urban communities of Palembang.

MATERIALS AND METHOD

This research was conducted in Gandus District, Palembang City, South Sumatra Province, by taking two village samples, namely Gandus and Pulo Kerto Village in The City od Palembang, South Sumatra. This location determination was carried out purposively by considering that Gandus is one of the areas that has a slaughterhouse and rubber agroindustry and is still agrarian.

The research subjects (respondents) were 120 farmers consisting of 30 farmers from Gandus Village and 90 farmers from Pulo Kerto Village. Sample display procedure with simple random sampling method with systematic random. Data was collected in June 2023 – October 2023. Distribution of sample can be seen in Table 1.

Table 1. Number and Distribution of Research Samples

No.	Sub-District	Livelihood	Populasi (KK)	Sample (KK)	Percentage (%)
1.	Gandus	Farmer	62	30	48,39
2	Pulo Kerto	Farmer	214	90	42,06
	Total		276	120	43,48

The questionnaire design was carried out to collect exploratory information from respondents. Questions amounted to 4 to 5 per related indicator in this study variable. Respondents are given the freedom to answer with answer choices The questionnaire contains questions with the aim of testing and measuring and analyzing hypotheses. Therefore, questions are made focused and structured in the form of perceptual assessments of the determinants of poverty. The questions on the questionnaire list are made according to the variables used to test the hypothesis. The categories and scales that measure the variables of natural resource curse factors, economic dualism factors, socio-entropy factors, agricultural involution factors and agricultural revolutions are 5 = strongly agree, 4 = agree,

3 = quite agree, 2 = disagree less, and 1 = disagree. The indicator variables, definitions, and research parameters used are listed in Table 2.

Table 2. Variables and Indicators Research

Variable	Variable Notation	Indicators	Indicator Notation
Resource curse factors	X.1	Peasant culture become lazy	X.1.1
		Environment damage	X.1.2
		Bad government governance	X.1.3
		de-agriculturalization	X.1.4
Economic dualism factors	X.2	Economic gap	X.2.1
		Culture gap	X.2.2
		Technology gap	X.2.3
		Social gap	X.2.4
Agricultural revolution factors	X.3	Profit efficiency	X.3.1
		Value added effectiveness	X.3.2
		Acceleration breaks through market	X.3.3
Agricultural involution factors	X.4	Production and productivity stagnation	X.4.1
		Market expansion stagnation	X.4.2
		Development social economy stagnation	X.4.3
Socio-Entropy factors	X.5	Ecological entropy	
		Not sustainable natural resource management	X.5.1.1
		Pressure Switch Function Land	X.5.1.2
		Limitations Environmentally Friendly Technology	X.5.1.3
		Economic entropy	
		Avoid taxes and levies	X.5.2.1
		Economic institutional are disorganized	X.5.2.2
		Not complying with profit sharing agreements	X.5.2.3
		Cultural entropy	X.5.3.1
		Traditions are still implemented by the community	
Patron and client relations	X.5.3.2		

Variable	Variable Notation	Indicators	Indicator Notation
Agricultural involution factors	X.4	Kinship relations	X.5.3.3
		Psychological entropy	
		Social jealousy	X.5.4.1
		Anxiety to development	X.5.4.2
		Excessive self-pride	X.5.4.3
		Production and productivity stagnation	X.4.1
Agricultural revolution factors	X.5	Market expansion stagnation	X.4.2
		Development social economy stagnation	X.4.3
		Profit efficiency	X.5.1
Agricultural revolution factors	X.5	Value added effectiveness	X.5.2
		Acceleration breaks through market	X.5.3
Poverty	Y.1	Food poverty	Y.1.1
		Non-food poverty	X.1.2

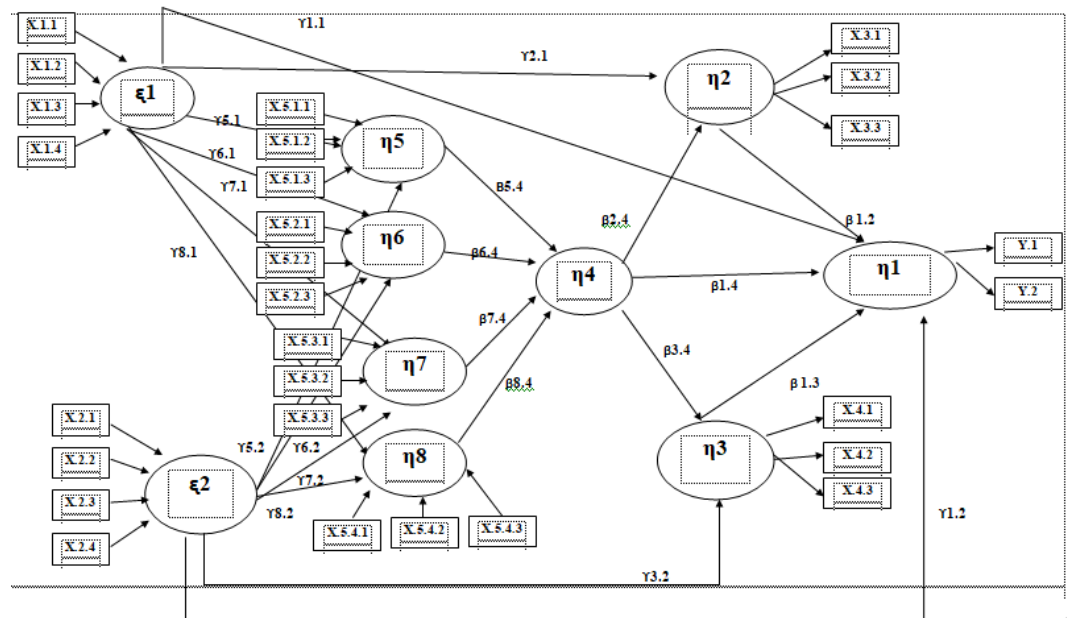


Figure 2. Framework Concept of Determinants of Poverty

Information : η_1 = poverty, η_2 = agricultural revolution, η_3 = agricultural involution, η_4 = entropy social, η_5 = psychological entropy, η_6 = ecological entropy , η_7 = economy entropy, ξ_8 = cultural entropy, ξ_1 = resource curse, ξ_2 = economic dualism, β_{ji} = path coefficients of endogenous vector predictors, γ_j = path coefficients of exogenous vector predictors, ζ_j = residual value of endogenous variables.

Based on the concept of the research framework, the following hypotheses:

- H0 : It is suspected that resource curse, economic dualism, entropy social, agricultural involution and agricultural revolution have no significant effect on poverty.
- H1 : It is suspected that resource curse, economic dualism, entropy social, agricultural involution and agricultural revolution have a significant on poverty.

H0 : It is suspected that resource curse, economic dualism, entropy social, agricultural involution and agricultural revolution have no significant indirect effect on poverty.

H2 : It is suspected that resource curse, economic dualism, entropy social, agricultural involution and agricultural revolution have a significant indirect effect on poverty.

The study used data analysis with Structure Equation Modeling (SEM) PLS 3.2 to analysis the determinants of poverty. The significance of this study was used at 5%. (Value expected to be less than $0.05 < 0.05$).

RESEARCH RESULTS AND DISCUSSIONS

Characteristics of Respondents

The study results obtained a description of the age, education level, area of agricultural land, and income of respondents listed in Figure 2

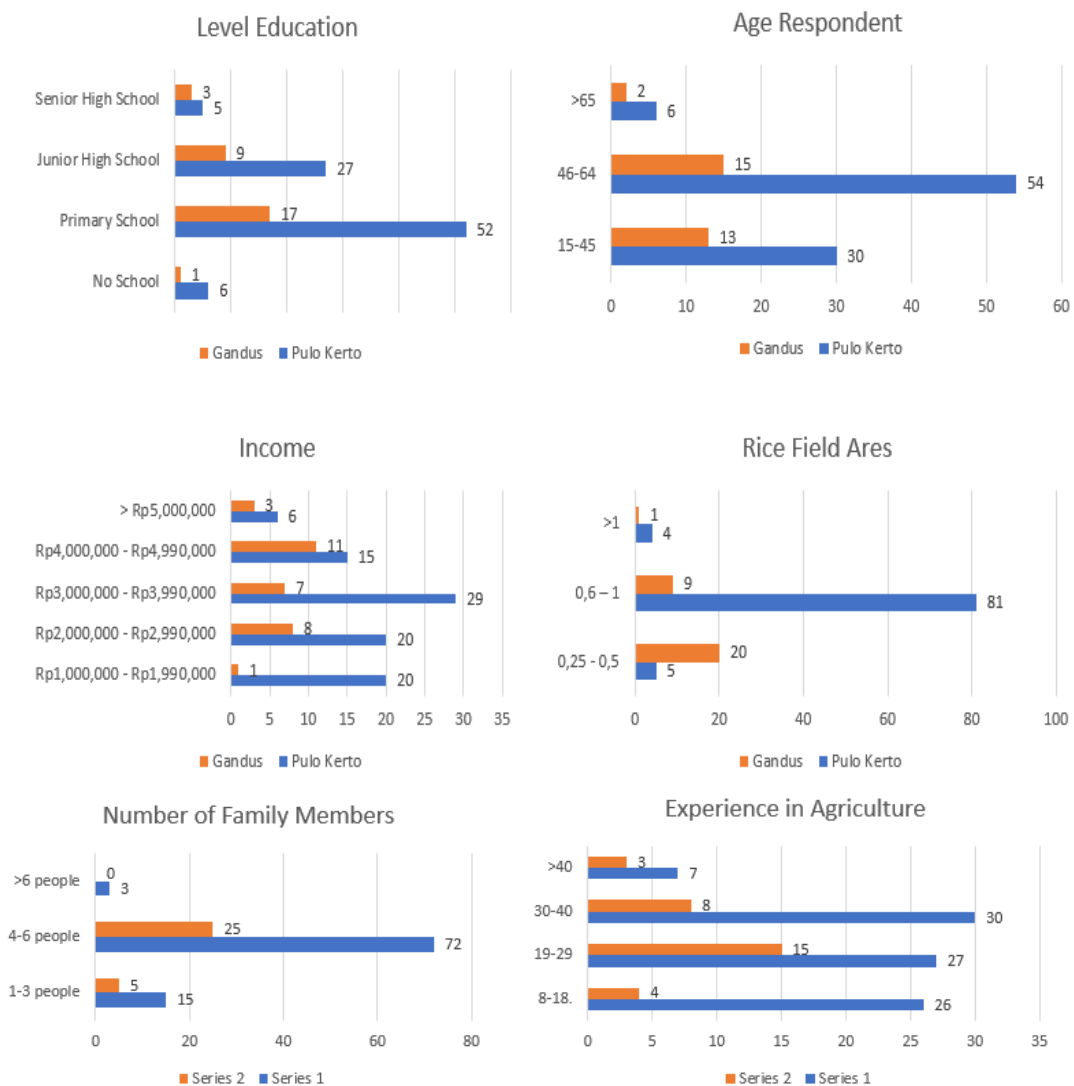


Figure 3. Description of Age, Education Level, Area of Farmland, and Income of Respondents

Based on Figure 3, it is known that in Gandus sub-district most or several 28 respondents are in the composition of productive age and in Pulo Kerto sub-district most or several 84 respondents are in the composition of productive age. The level of Education in Gandus sub-district of the most respondents at the elementary level is equivalent to 17 people and in Pulo Kerto sub-district the level of education of the most respondents at the elementary level is equivalent to 52 people, the area of rice fields in Gandus sub-district the most respondents in the broad range of 0.25-0,5 Ha amounting to 20 people and in Pulo Kerto sub-district the area of rice fields the most respondents in the broad range of 0.6-1 Ha amounting to 81 people, respondent income per month in Gandus sub-district the most range Rp 4,000,000- Rp. 4,990,000,- a total of 11 people and respondent income per month in Pulo Kerto sub-district the most range Rp 3,000,000- Rp. 3,990,000,- a total of 29 people. The number of family members in Gandus sub-district in the broad range of 4-6 people amounting to 25 people and in Pulo Kerto sub-district the number of family members the most respondents in the broad range of 4-6 people amounting to 72 people, the experience of farming in Gandus sub-district the most respondents in the broad range of 19-29 years amounting to 15 people and in Pulo Kerto sub-district the experience of farming the most respondents in the broad range of 30-40 years amounting to 30 people. It can be concluded that respondents in the category of productive age, low level of

category education, the area of rice fields of respondents are in the average scale of small-scale category farming, income sourced from irrigation rice paddy farming business in the low category, number of family members is large and experience of farming is high.

SEM Analysis Results

The results of data analysis using structural equation modeling (SEM) to know the factors that influence poverty. to get the value of the variables to be studied, each observed variable is first computed based on its group in SEM which is called the loading factor value. The correlation value is the result of analysis with the conceptual model being the benchmark for comparison.

Convergent Validity testing with criteria evaluation of loading factor through the reflective indicator elimination process, next with outer loading ≥ 0.5 , in Table 3.

Table 3. Convergent Validity

Item	Average Variance Extracted (AVE)
Resource Curse	0.798
Economic Dualism	0.721
Agricultural Involution	0.791
Agricultural Revolution	0.866
Poverty	0.855
Socio-Entropy	0.570
Ecology	0.615
Economic	0.676
Cultural	0.804
Psychology	0.817

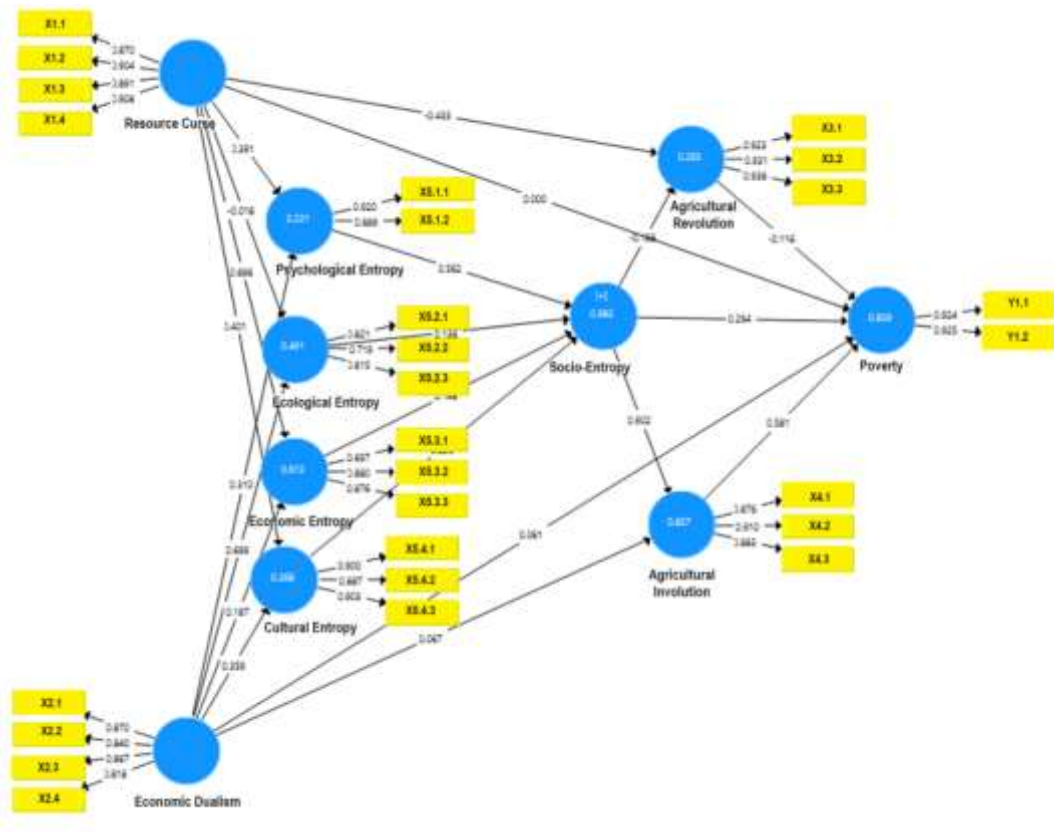
Based on Table 3. Convergence validity values have a good correlation between indicators that make up the construct. This is indicated in the AVE value of all variables has a value of ≥ 0.7 , meaning meeting convergent validity criteria. Discriminant validity can be seen

from the measurement of cross loading factor with construct and AVE comparison with latent variable correlation. Suppose the correlation of the construct with the subject of measurement (each indicator) is more significant than the size of the other construct. In that case, it is said that the variable has high discriminant validity. The reliabilities test in Partial Least Square (PLS) can use two methods: Composite Reliability (CR) and Cronbach's Alpha, listed in Table 4.

Table 4. Composite Reliability (CR) and Cronbach's Alpha

Item	Composite Reliability	Cronbach's Alpha
Resource Curse	0.941	0.916
Economic Dualism	0.912	0.871
Agricultural Involution	0.919	0.868
Agricultural Revolution	0.951	0.923
Poverty	0.922	0.831
Socio Entropy	0.893	0.855
Ecology	0.827	0.713
Economy	0.861	0.752
Culture	0.925	0.878
Psychology	0.899	0.780

Figure 4. Structural Model Testing (Inner Model)



Furthermore, the R-Square value of the psychological entropy variable of 0.233, ecological entropy variable of 0.501, economic entropy variable of 0.811, cultural entropy variable of 0.268 shows that their respective entropy can be explained by psychological (23.30%), ecological entropy (50.10%), economic entropy (81.11%) and cultural entropy (26.88%) by natural resource curse and economic dualism. The R-Square value of socio entropy variable of 0.962 show that socio entropy can be explained by 96,20% by the psychological, ecological, economic and cultural entropy. The R-Square value of

agricultural involution variable of 0,840 show that agricultural involution can be explained by 84,00% by the entropy of economic dualism and socio-entropy. The R-Square value of agricultural revolution variable of 0.291 show that agricultural revolution can be explained by 29.10% by the curse of natural resources and socio-entropy. The R-Square value of poverty variable of 0,861 show that poverty can be explained by 86,10% by the curse of natural resources, economic dualism, socio-entropy, agricultural involution and agricultural revolution. This 86.10% R square value for endogenous variables indicates that the model built is suitable (good) based on structural model evaluation criteria with PLS.

Based on the results of the analysis of the path of the inner equation of the model as follows:

Poverty Variable = $0.307 \eta_4 + (0.116) \eta_2 + 0.577 \eta_3 + (0.011) \varepsilon_1 + 0.058 \varepsilon_2 + \text{error } \eta_4$

Variables of the Agricultural Revolution = $(0.184) \eta_4 + (0.431) \varepsilon_1 + \text{error } \zeta_2$

Agricultural Involution Variables = $0.890 \eta_4 + 0.072\varepsilon_2 + \text{error } \zeta_3$

Socio-Entropy Variables = $0.412 \eta_5 + 0.124 \eta_6 + 0.2111 \eta_7 + 0.384 \eta_8 + \text{error } \zeta_4$

Psychological Entropy Variables = $0.392 \varepsilon_1 + 0.312 \varepsilon_2 + \text{error } \zeta_5$

Ecological Entropy Variables = $(0.015) \varepsilon_1 + 0.706 \varepsilon_2 + \text{error } \zeta_6$

Economic Entropy Variables = $0.895 \varepsilon_1 + 0.188 \varepsilon_2 + \text{error } \zeta_7$

Cultural Entropy Variables = $0.402 \varepsilon_1 + 0.359 \varepsilon_2 + \text{error } \zeta_8$

Hypotheses in this study will be tested using path coefficient values and t-values to see if there are significant influences or not. In addition, the results of the path significance test

of the parameter coefficient shows the significant value of the influence of each research variable listed in Table 5.

Table 5. Path Coefficient Values dan T Values

Items	T Statistik	P Values
The Curse of Natural Resources -> Psychological	4,566	0,000
The Curse of Natural Resources -> Ecology	0,252	0,801
The Curse of Natural Resources -> Economy	40,992	0,000
The Curse of Natural Resources -> Cultural	4,797	0,000
The Curse of Natural Resources -> Agricultural Revolution	5,105	0,000
The Curse of Natural Resources -> Poverty	0,305	0,760
Dualism Economic -> Psychological	3,581	0,000
Dualism Economic -> Ecology	17,249	0,000
Dualism Economic -> Economy	4,285	0,000
Dualism Economic -> Culture	4,252	0,000
Dualism Economic -> Agricultural Involution	1,988	0,047
Dualism Economic -> Poverty	1,512	0,131
Psychological -> Socio Entropy	9,204	0,000
Ecology -> Socio Entropy	3,686	0,000
Economy -> Socio Entropy	5,202	0,000
Culture -> Socio Entropy	8,960	0,000
Socio Entropy -> Agriculture Involution	41,642	0,000
Socio Entropy -> poor	2,821	0,005
Socio Entropy -> Agriculture Revolution	1,706	0,089
Agriculture Involution -> Poor	6,252	0,000
Agriculture Revolution -> Poor	2,548	0,011

When viewed in the Table there is the influence of natural resource curses on psychological entropy, economic entropy, and cultural entropy with a p-value of $0.000 < p \text{ value } (0.05)$ while there is no influence of natural resource curses on ecological entropy with a p-value of $0.801 > p \text{ value } (0.05)$. The effect of natural resource curse factors on the agricultural revolution obtained a p-value of $0.000 < p \text{ value } (0.05)$ so that the hypothesis stating that there is an influence of natural resource curse factors on the agricultural revolution is accepted. The results of this study are supported by the opinion of Sachs and Warner, 1997 that the relationship between economic development and the abundance of natural resources has long been the object of study of economic research. Intuitively, the abundance of natural resources owned by an area can be a driving factor for the economy so that areas that have an abundance of resources should have better economic performance than areas without an abundance of natural resources. However, Fauzi (2007) states that the resource curse hypothesis could be Ad-Hoc. It must be distinguished between the abundance of resources and the competitiveness of regions that have these resources. This can be seen how the performance of the natural resource-based sector in the area and the extent of stability of the welfare level of actors engaged in the natural resources sector such as farmers.

The effect of natural resource curse factors on poverty obtained a p-value of $0.760 > p \text{ value } (0.05)$ so that the hypothesis stating that there is an influence of natural resource curse factors on poverty is rejected. According to Fredrick Van Deer F (2011) who said that countries with a lot of natural resources become poorer every year despite the large resources.

Atri Putra et al (2015), that developing countries wealth in natural resources do not have a positive impact on their welfare and economic growth, but the abundance of resources they have actually causes underdevelopment and poverty, which involves more foreigners in the processing process. Countries that have an abundance of natural resources tend to have a low human development index; this is told in the book "escaping the resources curse"

where countries rich in natural resources such as Gabon, Congo, Nigeria, Angola and Chad are at the bottom of the human development report issued by the United Nations. In addition, it is also explained that although some countries rich in natural resources have a good human development index, the problem of social inequality between people is still very large. Natural resource-based economies tend to have lower economic growth (Martin and Subramanian, 2003). Natural resources prevent entrepreneurs from being more involved in productive economic activities, hence there will be a reallocation of skills and resource extraction activities towards the natural resources (Tadjoeddin, 2007).

Sachs (2007) Abundance resource natural is no just bring impact positive and precisely tend leads on disaster economy, volatility budget, conflict social and conflict environment become threat from error planning from big income in _ can from industrialization resource nature (Aunty, 2002). There is substantial negative impact from abundance resource natural to development man . Symptom sort of this is also stated as a natural resources curse (Sachs, 2007). However abundance resource however Also as gift that has been set . So , it's necessary exists effort in avoid curse resource natural the . possibility exists resource curse symptoms can be detected through influence sector mining to industrialization , conflict And development especially the economic situation that occurs (Hermawan , 2009).

With riches source power scattered nature in lots region and island , not possible regions in Indonesia it will face natural resource curse phenomenon . Although in level Indonesian national is said no experience natural resource curse phenomenon (Rosser, 2004), other research related to the natural resource curse in Indonesia indicates exists phenomenon the in level regions (Komarulzaman & Alisjahbana , 2006; Martawardaya et al., 2016). However so , third study the new until on conclude exists trend happen natural resource curse phenomenon general . Analysis carried out Komarulzaman & Alisjahbana (2006) too stop on analyze correlation between factor abundance source

power natural with growth economy. countries with riches source Power abundant nature, on average it grows more slow , no succeed reach progress development economics , and face level more poverty than country with source power little nature (Torvik , 2002; Humphreys et al., 2007; Pessoa, 2008; Pandergast et al., 2011; Zhan, 2011; Borge et al., 2015; Douglas & Walker, 2016; Wang et al., 2018)

The factor of economic dualism, when viewed in the Table there is an influence of economic dualism on psychological entropy, ecological entropy, economic entropy, and cultural entropy. A p-value of $0.000 < p \text{ value } (0.05)$ is obtained so that there is an influence of economic dualism on indicators of psychological entropy, ecological entropy, economic entropy and cultural entropy.

The influence of economic dualism factors on agricultural involution. A p-value of $0.047 < p \text{ value } (0.05)$ was obtained so that the hypothesis stating that there is an influence of economic dualism factors on agricultural involution is accepted. And the influence of economic dualism factors on poverty. A p-value of $0.131 > p \text{ value } (0.05)$ was obtained, so the hypothesis that there is an influence of economic dualism on poverty is rejected. In Mulyadi's opinion (2003), the emergence of informal economic dilemmas is as a result of the increasingly strong modernization process that moves biasedly, towards dualistic characteristics. Macro development bias will result in another economic system, namely the informal sector, which mostly occurs in developing countries. The phenomenon of economic dualism that gave birth to the informal sector shows evidence of systemic-

empirical separation between the formal and informal sectors of a national economic system. This also provides economic and political legitimacy that a country's economy has stagnated with a very high unemployment rate and considerable socio-economic inequality. According to Rachbini (in Mulyadi, 2003) there are two factors that result in the emergence of economic dualism between the formal and informal sectors. The first relates to external factors and the second is to internal factors.

The external factor in the first case is that the existing institutions support modern formal economic activity. Although it seems like a unified system that is complementary and needs each other, formal and informal institutions are disaggregated with each other Second, which is included in external factors is also the occurrence of wage gaps. Discrimination in wage levels by both informal institutions, bureaucracy and the environment of formal economic actors themselves contributes to maintaining the separation of the two sectors. Third, related to political technical problems, where political actors (bureaucratic circles) in Indonesia do not pay attention and understand the rapid development of modernization. This third factor is characterized by the paradox of decision-making at the central and local (regional) levels as well as the paradox of regulations that support and undermine various informal sector activities. While related to internal factors is a very unbalanced level of productivity.

When viewed in the Table of variation of socio-entropy factors, there is an influence of ecological entropy, economic entropy, cultural entropy and psychological entropy on socio-entropy factors. A p-value of $0.000 < p \text{ value } (0.05)$ is obtained so that there is an influence of indicators of ecological entropy, economic entropy, cultural entropy and psychological entropy on socio-entropy factors. In Sjarkowi opinion (2017) The institutional approach becomes very important based on the argument empirically that social conditions and social values are usually strongly influenced by technological developments which ultimately change lifestyles society, so that unstructured social changes can occur in a very fast and random period of time.

The influence of socio-entropy factors on agricultural revolution obtained a p-value of $0.089 > p \text{ value } (0.05)$ so that the hypothesis stating that there is an influence of socio-entropy factors on agricultural involution and poverty is rejected. The socio-entropy factor of agricultural involution obtained a p-value of $0.000 < p \text{ value } (0.05)$, the socio-entropy of poverty obtained a p-value of $0.005 < p \text{ value } (0.05)$ so that the hypothesis stating that there

is an influence of socio-entropy factors on agricultural involution and poverty is accepted.

The results of this study are supported by Ari Widi, 2001 that the existence of inequality in both economic growth and population distribution that occurs between one region and another will eventually cause a gap in poverty levels. According to Myrdal (1957), excessive differences in the level of economic progress between areas will result in backwash effects dominating the influence of imbalances. Inequality that occurs in a region is determined by the type of economic development aimed at the size of the country, natural resources and policies adopted (Mudrajad, 2000).

The influence of agricultural involution factors on poverty. A p-value of $0.000 < p < 0.05$ was obtained so that the hypothesis stating that there is an influence of agricultural involution factors on poverty is accepted. The results of this study are in accordance with the opinion of Geertz (1984), in his research on poverty in rural Java island that the symptoms of poverty are the result of the process of agricultural involution. The process of agricultural involution is a process of growth without followed by change, the growth that occurs is inward growth or horizontal expansion. The agricultural sector continues to absorb additional work installments without structural changes. As a result, the income-sharing mechanism is followed by perpetuating the degree of socioeconomic homogeneity through the division of relatively small incomes into even smaller parts. This symptom causes equal distribution of poverty which is characterized by widespread poverty.

The influence of agricultural revolution factors on poverty. A p-value of $0.011 < p < 0.05$ was obtained so that the hypothesis stating that there was an influence of agricultural revolution factors on poverty was accepted. The agricultural revolution represents a paradigm shift in the way we produce and manage agriculture. In an effort to occur an agricultural revolution to reduce poverty, the implementation of agricultural revolution policies, the existence of a coordinating agency is needed to more dominantly manage the stages of policy implementation. If there is no clear coordinating institution, there is no accountability mechanism and continuous continuity of a public policy implementation process in the context of the agricultural revolution (Badjuri and Yuwono, 2002).

CONCLUSION

If poverty will repair not enough only technology and top-down policy, so need notice justice depicted from dualism and negligence in construction depicted from resource curse. This matter depicted from results findings that; factors that affect the sustainability the poverty is dualism, entropy social and agricultural involution. Resource curse and economic dualism variable have a significant indirect effect on poverty. Agricultural revolution variable has no significant effect on poverty. The result of this study imply that have negative effect between resource curse, social entropy and agricultural revolution. It means if social entropy condition higher so revolution more low, so that level of poverty become high. There is have a negative effect between resource curse, agricultural revolution and poverty. The higher of resource curse, then the revolution lower and level of poverty become high.

References

- Ab. Aziz, M. R. (2021). Infaq Of Experience For The Post Crisis Of Covid-19: Risk Taker Proposition. *International Journal Of Islamic And Civilizational Studies*, Vol.8, No.2.

- Auty, R. M. (2002). *Sustaining Development in Mineral Economics: The Resource Curse Thesis*. London: Routledge
- Atri Putra et al. (2015). Ownership of Natural Resources to Regional Socio-Economic Conditions in Indonesia. *Journal of Ecoscience*, 4(1), 51-62.
- Ayesha. (2019). Boeke's Theory of Social Dualism. Article of economic Discussion. <http://www.economicdiscussion.net/>
- Badjuri, Abdulkahar. dan Yuwono, Teguh. (2003). *Public Policy: Concepts & Strategies*. Diponegoro University, Semarang
- Boeke, J. H. (1953). *Economics and Economic Policy of Dual Societies*. New York: Institute of Pacific Relations.
- Borge, L. E., Parmer, P., & Torvik, R. (2015). Local natural resource curse?. *Journal of Public Economics*, 131, 101-114. doi: <https://doi.org/10.1016/j.jpubeco.2015.09.002>.
- Chen, J., Chen, X., Hou, Q., & Hu, M. (2021). Haste doesn't bring success: Top-down amplification of economic growth targets and enterprise overcapacity. *Journal of Corporate Finance*, 70(December 2020), 102059. <https://doi.org/10.1016/j.jcorpfin.2021.102059>
- Chen, X., Wang, Y., & Li, T. (2024). Examining the resource curse phenomenon, digital finance integration, and their impacts on economic growth: Empirical insights from South Korea. *Resources Policy*, 88(November 2023), 104508. <https://doi.org/10.1016/j.resourpol.2023.104508>
- Davis, E. P., & Martinez, M.-S. (2015). *Economic Theories of Poverty*. National Institute of Economic and Sosial Research.
- Destek, G., Hossain, M. R., Aydın, S., & Destek, M. A. (2023). Can the resource curse be reversed through financialization, human capital, and institutional quality? Evidence from Sustainable Development Index. *Resources Policy*, 86(PB), 104245. <https://doi.org/10.1016/j.resourpol.2023.104245>.
- Douglas, S., & Walker, A. (2017). Coal mining and the resource curse in the eastern United States. *Journal of Regional Science*, 57(4), 568-590. doi: <https://doi.org/10.1111/jors.12310>
- Fauzi A. (2007). *Economic of Nature Non Convexity. Reorientation of natural resource economic development and its implications for Indonesia*, Oration Professor of the Faculty of Economics and Management IPB. 10 November 2007.
- Gazeley, I. A., & Verdon, N. B. 2014. The first poverty line? Davies' and Eden's investigation of rural poverty in the late 18th-century England. *Explorations in Economic History* 51 (2014) 94–108.
- Geertz, Clifford. (1974). *Agricultural Involution: The Process of Ecological Transformation in Indonesia*. Jakarta: Bhratara Karya Aksara.
- Guo, W., Yang, B., Ji, J., & Liu, X. (2023). Abundance of natural resources, government scale and green economic growth: An empirical study on urban resource curse. *Resources Policy*, 87(PA), 104303. <https://doi.org/10.1016/j.resourpol.2023.104303>.
- Humphreys, M., Sachs, J. D., & Stiglitz, J. E. (Eds.) (2007). *Escaping the resource curse*. Columbia University Press.
- Hermawan, Hardy. (2009). *The Influence of the Farming Sector on Economic Growth and Human Development*. Thesis.
- Lipton, M. (1977). *Why poor people stay poor*. Harvard University Press.
- Jackson, W.A. (1999), "Dualism, duality and the complexity of economic institutions", *International Journal of Social Economics*, Vol. 26 No. 4, pp. 545-558. <https://doi.org/10.1108/03068299910215997>.
- Kumar, S. S., & Jie, Q. (2023). Exploring the role of financial inclusion in poverty reduction: An empirical study. *World Development Sustainability*, 3(September 2022), 100103. <https://doi.org/10.1016/j.wds.2023.100103>.
- Kuncoro, Mudrajad. (2000). *Development Economics: Theory, Problems and Policy*, UPP AMP YKPN.
- Kouadio, H. K., & Gakpa, L. L. (2022). Do economic growth and institutional quality reduce poverty and inequality in West Africa? *Journal of Policy Modeling*, 44(1), 41–63. <https://doi.org/10.1016/j.jpolmod.2021.09.010>.
- Lu, J., Zhang, M., Zhang, J., Xu, C., & Cheng, B. (2021). Can health poverty alleviation project reduce the economic vulnerability of poor households? Evidence from Chifeng City, China. *Computers and Industrial Engineering*, 162(October), 107762. <https://doi.org/10.1016/j.cie.2021.107762>.
- Martawardaya, B., Triyono, B., & Hanafi, M. F. (2016). *The curse of natural resources in Indonesia*. Newsletter Edition I, September 2016. Jakarta: Article 33

- Mien, E., Goujon, M. (2022). 40 Years of Dutch Disease Literature: Lessons for Developing Countries. *Comparative Economic Studies*, Vol. 64: 351-383.
- Mulyadi, S. (2003). *Human Resource Economics in Development Perspective*. Jakarta: PT. Raja Grafindo Persada.
- Myrdal, Gunnar. (1957). *Economic Theory and Underdeveloped Regions*. by Gerald Duckworth & Co. Ltd
- Nupur, S., & Dutta, M. (2023). Migration, Remittance and Poverty Dynamics in Rural India: Evidence from Longitudinal Survey. *Migration Letters*, 20(8), 532–542.
<https://doi.org/10.59670/ml.v20i8.5426>
- Olarte, S. H. 2018. What do marginal communities that generate structural poverty look like?. *Papeles de POBLACIÓN*. 98(39), 157-182. DOI: <http://dx.doi.org/10.22185/24487147>.
- Presidential Regulation Number 32 of 2011 concerning the Master Plan for the Acceleration and Expansion of Indonesia's Economic Development 2011-2025.
- Pendergast, S. M., Clarke, J. A., & van Kooten, G. C. (2008). Corruption and the curse of natural resources. Working Papers 2008-10. University of Victoria, Department of Economics, Resource Economics and Policy Analysis Research Group.
- Pessoa, A. (2008). Natural resources and institutions: the “natural resources curse” revisited. MPRA Paper No. 8640. Munich Personal RePEc Archive.
- Rosser, A. (2004). Why did Indonesia overcome the resource curse?. IDS Working Paper 222. Institute of Development Studies. Diakses 20 Desember 2023 dari <https://opendocs.ids.ac.uk/opendocs/handle/20.500.12413/4017>.
- Sachs, J., & Warner, A. (1997). *Natural Resources and Economic Growth*. Cambridge, MA (mimeo): HIID.
- Sachs, Jeffrey D., and Andrew M. Warner. 2007. “Natural Resource Abundance and Economic Growth.” NBER Working Paper Series 2007:577.
- Sala-i-Martin, Xavier and A. Subramanian (2003) ‘Addressing the Natural Resource Curse: An Illustration from Nigeria’, NBER Working Paper
- Sjarkowi, F. dan M. Sufri. (2004). *Agribusiness Management*. Palembang: CV Baldal Grafiti Press
- Sjarkowi, F. (2020). *People's Commercial Management. Linking the organic relationship between the performance of rural farmers and the performance of advanced agribusiness entrepreneurs in Bumi Nusantara*. Sriwijaya University Press.
- Sjarkowi, Fachrurrozie. (2020). *Manajemen Niagaperta Kerakyatan ; Mempertautkan Hubungan Organik Kinerja Orang Tani Pedesaan dan Kinerja Pengusaha Agribisnis Maju di Bumi Nusantara (1st ed.)*. Sriwijaya University Press.
- Sjarkowi, F. (2017). *Socio-Entropic Controlling Interface (SECI) An Applied Theory On Social Partnership Endeavor*. Baldal Grafiti Press.
- Tadjoeddin, Z.M. (2007) ‘A Future Resource Curse in Indonesia: The Political Economy of Natural Resources, Conflict and Development’, CRISE Working Paper No. 35. Oxford: Centre for Research on Inequality, Human Security and Ethnicity.
- Torvik, R. (2002). Natural resources, rent seeking and welfare. *Journal of Development Economics*, 67(2), 455-470. doi: [https://doi.org/10.1016/S0304-3878\(01\)00195-X](https://doi.org/10.1016/S0304-3878(01)00195-X)
- Van der Ploeg F. (2011). Natural Resources: Curse or Blessing? *Journal of Economic Literature* 2011, 49(2): 366-420.
- Wang, Z., Lu, H., & Han, Z. (2018). An analysis of the spatial and temporal differentiation and driving factors of the marine resource curse in China. *Ocean & Coastal Management*, 155, 60-67. doi: <https://doi.org/10.1016/j.ocecoaman.2018.01.015>
- Widyastuti, A. T., Hartono, D., Sidig, D. S., & Rusmawati, E. (2023). Financial inclusion’s impact on energy poverty: Evidence from Indonesia. *World Development Sustainability*, 3(October 2022), 100113. <https://doi.org/10.1016/j.wds.2023.100113>
- Zhan, J. V. (2011). Natural resources and corruption: Empirical evidence from China. Paper presented at Annual Meeting of American Political Science Association.