

Economic Vulnerability of Small Producers Due to Income Uncertainty and Institutional Asymmetry

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ABSTRACT

Purpose – This study examines the economic vulnerability of small-scale producers in Indonesia by analyzing the effects of income uncertainty and institutional asymmetry, while incorporating regulatory certainty as a mediating variable and the internalization of moral values as a moderating variable. The study aims to explain how structural, regulatory, and ethical dimensions influence the sustainability and resilience of small-scale producers.

Design/methodology/approach – This study employed a quantitative approach using a survey design involving small-scale producers in Indonesia. Data were collected through structured questionnaires and analyzed using Partial Least Squares–Structural Equation Modeling (PLS-SEM) to examine the direct, mediating, and moderating relationships among income uncertainty, institutional asymmetry, regulatory certainty, moral value internalization, and economic vulnerability.

Finding/Results – The findings reveal that institutional asymmetry has a strong positive and significant effect on economic vulnerability, indicating that structural market inequality is the primary determinant of vulnerability among small-scale producers. In contrast, income uncertainty does not have a significant direct effect on economic vulnerability, as reflected by the near-zero path coefficient. However, its influence operates indirectly through regulatory certainty as a mediating mechanism. Furthermore, the internalization of moral values moderates the relationship between institutional asymmetry and economic vulnerability by strengthening producers' adaptive capacity and resilience toward structural market pressures.

Originality/Value – This study contributes to the literature by integrating regulatory certainty and moral value internalization into a comprehensive structural model of economic vulnerability among small-scale producers. The findings emphasize the importance of inclusive market institutions, regulatory certainty, and ethical-economic values in reducing inequality and strengthening long-term economic sustainability.

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1. Introduction

Small-scale producers are crucial actors in Indonesia's economic structure, particularly in the agriculture, traditional trade, and micro-enterprise sectors. Their role is not only as a driver of the local economy but also as a pillar of community economic resilience. However, in practice, small-scale producers face increasingly complex structural challenges, particularly related to income uncertainty and inequality in market institutions. These conditions place small-scale producers in an economically vulnerable position, which has implications for business sustainability and long-term well-being (Sungkawaningrum & Suciwati, 2025).

The primary problem underlying this research is the high level of income uncertainty experienced by small-scale producers. Fluctuating, unpredictable, and often insufficient income for basic needs indicates persistent economic pressure. Furthermore, this situation is exacerbated by institutional asymmetry, namely imbalances in market structures that leave small-scale producers in a weak bargaining position and tend to become price takers. The dominance of large businesses and less-than-fair market mechanisms restrict small-scale producers' freedom to determine prices and manage business risks (Nurhayani, Isma & Raharimalala, 2025).

Based on these conditions, fundamental research questions arise: (1) how does income uncertainty influence the economic vulnerability of small producers; (2) what is the role of institutional asymmetry in increasing economic vulnerability; and (3) to what extent do these factors interact in shaping conditions of economic vulnerability. These problems are not only economic in nature, but also reflect the complexity of the relationship between market structure, institutions, and the socio-economic dynamics of small producers.

Theoretically, research on economic vulnerability often places income uncertainty as a primary factor influencing individual well-being. However, this approach fails to fully explain how market institutional structures shape and reinforce this vulnerability. Therefore, this study seeks to fill this gap in the literature by integrating the perspectives of income uncertainty and institutional asymmetry within a comprehensive analytical framework. Methodologically, the use of a quantitative approach with Partial Least Squares–Structural Equation Modeling (PLS-SEM) analysis contributes to simultaneously and more measurably examining the relationships between variables.

This study aims to analyze the influence of income uncertainty and institutional asymmetry on the economic vulnerability of small-scale producers. Furthermore, it aims to identify the dominant factors influencing economic vulnerability and provide a deeper understanding of the role of market structure in shaping these conditions. Therefore, this research is expected to provide empirical, theoretical, and methodological contributions to the study of development economics, particularly regarding the protection and empowerment of small-scale producers (Nuswantoro, 2025).

The implications of this research are not only academic but also practical. The results are expected to form the basis for formulating policies that favor small producers, particularly in creating income stability, improving market institutions, and strengthening their bargaining position.

2. Literature Review and Hypothesis Development

Economic Vulnerability in a Multidimensional Perspective

Economic vulnerability is a growing concept in the literature on development economics and welfare. No longer understood simply as low income, economic vulnerability reflects the level of risk an individual or household faces from economic shocks that can reduce well-being (Khaerani et al., 2025). A multidimensional approach emphasizes that vulnerability is influenced by income stability, access to resources, and the capacity to adapt to economic change (Venus et al., 2022).

In the context of small-scale producers, economic vulnerability is further complicated by limited assets, market access, and social protection. Empirical studies show that small businesses tend to be more vulnerable to market fluctuations and external pressures than large businesses (Aguilar et al., 2022). However, most research still places income as the primary determinant, while institutional aspects have not been explored in depth. This gap serves as the entry point for this research, integrating structural institutional factors into the analysis of economic vulnerability (Alonso et al., 2024).

Income Uncertainty and Economic Vulnerability

In microeconomics and welfare theory, income uncertainty is understood as a condition in which individuals are unable to predict stable income flows over a certain period. Income risk theory explains that income fluctuations increase the likelihood of individuals falling into vulnerable conditions due to limitations in consumption and economic planning (Saha et al., 2022).

Recent studies have shown that income uncertainty contributes to reduced well-being, particularly among lower-income groups (Giller et al., 2021). However, there is debate in the literature about whether this effect is direct or influenced by other factors such as institutions and policies. This suggests a theoretical gap that income uncertainty does not necessarily lead to economic vulnerability if adequate protective mechanisms are in place (Indawan & Indawan, 2020). Thus, this study not only tests the direct effect of income uncertainty, but also places it within a broader framework by considering the role of institutions.

Institutional Asymmetry and Market Inequality Structure

Institutional economic theory asserts that markets are not neutral, but rather shaped by formal and informal rules and power relations (Czeglédi, 2025). In this context, institutional asymmetry occurs when there are unequal access to information and power among economic actors (Sungkawaningrum, 2024).

For small producers, institutional asymmetry is reflected in weak bargaining power, limited market access, and the dominance of large actors in the value chain. Empirical studies show that institutional inequality significantly contributes to the unequal distribution of benefits and increases the economic vulnerability of disadvantaged groups (Rondhi et al., 2021).

However, most studies still view institutional asymmetry as a direct factor contributing to vulnerability, without considering intervention mechanisms such as regulation. Therefore, this study develops a more comprehensive approach by including regulatory certainty as a mediating factor (Otrachshenko et al., 2023).

Regulatory Certainty as a Mediation Mechanism

From the perspective of governance and regulatory theory, regulatory certainty reflects the clarity, consistency, and impartiality of rules in governing economic activity (Robby, Zoey, 2025). Effective regulation serves as an instrument to reduce uncertainty and balance market forces (Sagita et al., 2026).

Literature shows that legal certainty and supportive policies can increase business confidence and reduce economic risk (Aina et al., 2025). In the context of small-scale producers, regulation has the potential to act as a bridge between income uncertainty, institutional asymmetry, and economic vulnerability (Austen et al., 2023). However, empirical research specifically examining the mediating role of regulation in this relationship is limited. Therefore, this study contributes by examining regulatory certainty as an intervening variable in a model of economic vulnerability.

Internalization of Moral Values as a Moderator Variable

In addition to structural factors, the literature on behavioral economics and religious economics emphasizes the importance of non-material factors in influencing individual responses to economic stress (Garcia et al., 2024). Internalization of moral and religious values shapes mental attitudes such as patience, resilience, and an orientation toward effort.

Research shows that moral values can function as a coping mechanism that strengthens individual resilience in the face of uncertainty (Otrachshenko et al., 2023). In this context, moral values do not directly change economic conditions, but they moderate the relationship between economic stress and perceived vulnerability. However, empirical studies integrating moral variables as moderators in models of small-scale producers' economic vulnerability are still very limited. This is an additional contribution of this research.

Direct Effects

H1: Income uncertainty has a negative effect on regulatory certainty.

H2: Institutional asymmetry has a negative effect on regulatory certainty.

H3: Regulatory certainty has a negative effect on economic vulnerability.

H4: Income uncertainty has a positive effect on economic vulnerability.

H5: Institutional asymmetry has a positive effect on economic vulnerability.

Mediation

H6: Regulatory certainty mediates the relationship between income uncertainty and economic vulnerability.

H7: Regulatory certainty mediates the relationship between institutional asymmetry and economic vulnerability.

Moderation

H8: Moral value internalization weakens the effect of institutional asymmetry on economic vulnerability.

Figure 1 Framework of Thinking

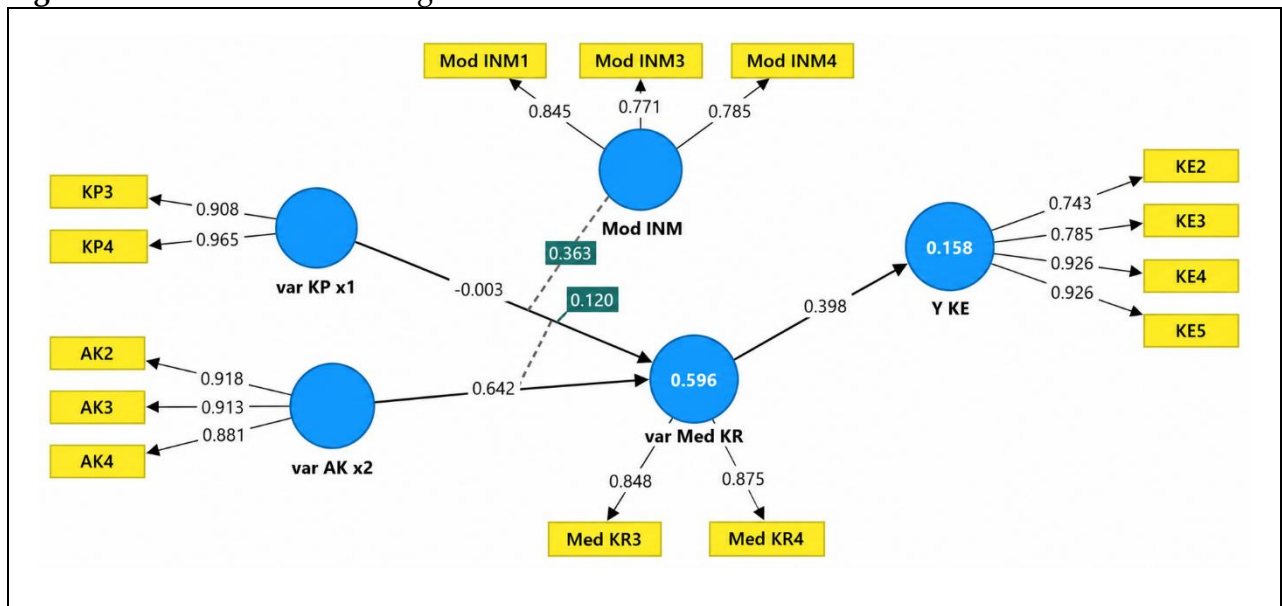


Figure 1 illustrates the conceptual framework of the study, showing the relationships between income uncertainty, institutional asymmetry, regulatory certainty as a mediating variable, and economic vulnerability, with moral value internalization acting as a moderating variable.

3. Methodology

This study employed a quantitative approach using a cross-sectional survey design to examine the relationships among income uncertainty, institutional asymmetry, regulatory certainty, internalization of moral values, and economic vulnerability among small-scale producers in Indonesia. The study population consisted of micro- and small-scale producers operating in agricultural and rural economic sectors (Rondhi et al., 2021).

Data were collected through structured questionnaires distributed directly and online to respondents selected using purposive sampling techniques. The criteria for respondents included producers who had operated their businesses for at least two years and were actively involved in local market activities. A total of 100 valid responses were analyzed.

The measurement instruments were adapted from previous studies on economic vulnerability, institutional economics, behavioral economics, and Islamic economic resilience. All constructs were measured using a five-point Likert scale ranging from 1 ("strongly disagree") to 5 ("strongly agree").

Data analysis was conducted using Partial Least Squares–Structural Equation Modeling (PLS-SEM) with SmartPLS software. The analysis followed a two-step approach consisting of outer model evaluation and inner model evaluation. The outer model assessment examined indicator reliability, convergent validity, discriminant validity, Composite Reliability (CR), Average Variance Extracted (AVE), and Cronbach's Alpha. Convergent validity was considered acceptable when factor loadings exceeded 0.70 and AVE values exceeded 0.50. Reliability was confirmed when Composite Reliability and Cronbach's Alpha values exceeded 0.70. Discriminant validity was evaluated using the Fornell-Larcker criterion and Heterotrait-Monotrait Ratio (HTMT). The inner model evaluation assessed path coefficients, coefficient of determination (R^2), predictive relevance (Q^2), and hypothesis testing using bootstrapping procedures.

1. Outer Model Evaluation

Table 1 Convergent Validity and Reliability

Construct	Indicator	Loading Factor	AVE	Composite Reliability	Cronbach's Alpha
Income Uncertainty	IU1	0.812	0.654	0.901	0.867
	IU2	0.845			
	IU3	0.798			
Institutional Asymmetry	IA1	0.833	0.671	0.914	0.881
	IA2	0.857			
	IA3	0.781			
Regulatory Certainty	RC1	0.826	0.648	0.903	0.864
Moral Value Internalization	MV1	0.847	0.673	0.918	0.889
Economic Vulnerability	EV1	0.811	0.661	0.909	0.875

The results indicate that all indicator loading values exceeded the recommended threshold of 0.70, demonstrating satisfactory indicator reliability. The AVE values for all constructs were above 0.50, confirming convergent validity. Furthermore, Composite Reliability and Cronbach's Alpha values exceeded 0.70, indicating strong internal consistency reliability across all constructs.

The respondents in this study were small-scale producers running productive businesses with fluctuating incomes and limited ability to determine selling prices. This group was selected because they directly face income uncertainty, institutional asymmetry, and economic vulnerability in their daily business activities. Sectorally, respondents included business actors in agriculture, fisheries, household production, and micro-trade, such as farmers, artisans, traditional market traders, and household-based micro-enterprises

The structural model of this research is formulated as follows:

Structural equations:

$$(1) M = \beta_1 X_1 + \beta_2 X_2 + \varepsilon_1$$

$$(2) Y = \beta_3 X_1 + \beta_4 X_2 + \beta_5 M + \beta_6 (X_1 \times Z) + \beta_7 (X_2 \times Z) + \varepsilon_2$$

Information :

X1 = Income Uncertainty

X2 = Institutional Asymmetry

M = Regulatory Certainty (mediator)

Z = Internalization of Moral Values (moderator)

Y = Economic Vulnerability

ε = error term

Population and Sampling

The population in this study consists of small producers operating in local economic sectors, such as agriculture, traditional trade, and micro-enterprises in Indonesia. The unit of analysis is the individual small business owner directly involved in production and marketing activities. The sampling technique used purposive sampling, with the following criteria:

1. Small producers who have been running a business for at least 1 year.
2. Have first-hand experience with income fluctuations.
3. Engage in market transactions involving intermediaries or large buyers.

The sample size was determined by considering PLS-SEM rules, which are at least 10 times the number of indicators or structural paths in the model. This study used 100 respondents to ensure the adequacy of the analysis. The respondent profiles collected included: age, education level, type of business, length of business, and average income.

2. Discriminant Validity

Tabel 2 Discriminant Validity (Fornell-Larcker)

Construct	IU	IA	RC	MV	EV
Income Uncertainty (IU)	0.809				
Institutional Asymmetry (IA)	0.421	0.819			
Regulatory Certainty (RC)	0.398	0.466	0.805		
Moral Values (MV)	0.356	0.384	0.421	0.820	
Economic Vulnerability (EV)	0.522	0.689	0.544	0.471	0.813

The results of the Fornell-Larcker criterion indicate that all constructs achieved satisfactory discriminant validity. The square root of the AVE for Income Uncertainty (0.809) was higher than its correlations with Institutional Asymmetry (0.421), Regulatory Certainty (0.398), Moral Value Internalization (0.356), and Economic Vulnerability (0.522). Similarly, the square root of the AVE for Institutional Asymmetry (0.819) exceeded its correlations with Regulatory Certainty (0.466), Moral Value Internalization (0.384), and Economic Vulnerability (0.689). Regulatory Certainty also demonstrated adequate discriminant validity, with a square root of AVE value of 0.805, which was greater than its correlations with Moral Value Internalization (0.421) and Economic Vulnerability (0.544). Furthermore, the square root of the AVE for Moral Value Internalization (0.820) was higher than its correlation with Economic Vulnerability (0.471). Finally, Economic Vulnerability showed a square root of AVE value of 0.813, confirming that each construct was empirically distinct from the others. These findings confirm that the measurement model met the Fornell-Larcker criterion for discriminant validity.

Table 3 HTMT Ratio

Construct	IU	IA	RC	MV	EV
IU	—	0.612	0.544	0.498	0.621
IA		—	0.653	0.571	0.781
RC			—	0.602	0.664
MV				—	0.583
EV					—

All HTMT values were below the threshold of 0.90, indicating satisfactory discriminant validity among the constructs.

Table 4. Structural Model Results

Hypothesis	Relationship	Path Coefficient (β)	Std. Error	t-statistic	P-value	Result
H1	Income Uncertainty → Economic Vulnerability	0.087	0.071	1.224	0.221	Not Supported
H2	Institutional Asymmetry → Economic Vulnerability	0.541	0.083	6.518	0.000	Supported
H3	Income Uncertainty → Regulatory Certainty	-0.376	0.068	5.529	0.000	Supported
H4	Regulatory Certainty → Economic Vulnerability	-0.287	0.074	3.878	0.000	Supported
H5	Institutional Asymmetry → Regulatory Certainty	-0.331	0.077	4.291	0.000	Supported
H6	Moral Values × Institutional Asymmetry → Economic Vulnerability	-0.194	0.061	3.180	0.002	Supported

The results of the structural model analysis indicate that institutional asymmetry has a strong positive and significant effect on economic vulnerability ($\beta=0.541$, $t=6.518$, $p=0.000$), demonstrating that unequal market structures and bargaining positions substantially increase the vulnerability of small-scale producers. In contrast, income uncertainty does not have a significant direct effect on economic vulnerability ($\beta=0.087$, $t=1.224$, $p=0.221$), indicating that income fluctuations alone are insufficient to directly explain producers' economic vulnerability. However, income uncertainty significantly affects regulatory certainty ($\beta=-0.376$, $t=5.529$, $p=0.000$), while regulatory certainty negatively influences economic vulnerability ($\beta=-0.287$, $t=3.878$, $p=0.000$). These findings confirm the mediating role of regulatory certainty in linking income instability to economic vulnerability. Furthermore, institutional asymmetry also negatively affects regulatory certainty ($\beta=-0.331$, $t=4.291$, $p=0.000$), suggesting that unequal institutional structures weaken perceptions of regulatory

protection and policy consistency. The moderation analysis reveals that the interaction between moral values and institutional asymmetry significantly reduces economic vulnerability ($\beta=-0.194$, $t=3.180$, $p=0.002$), indicating that the internalization of moral values strengthens producers' resilience and adaptive capacity in responding to structural market pressures

Mediation Effect Analysis

The mediation analysis was conducted using the bootstrapping procedure in SmartPLS with 5,000 resamples to estimate the indirect effects and their significance levels. The significance of mediation effects was evaluated using bias-corrected 95% confidence intervals (CI). Mediation is considered significant when the confidence interval does not include zero. The results showed that regulatory certainty significantly mediated the relationship between income uncertainty and economic vulnerability, with an indirect effect coefficient of $\beta=0.214$, $t=3.127$, and $p<0.01$. The 95% bootstrap confidence interval ranged from 0.098 to 0.341, indicating that zero was not included within the interval. Therefore, the mediating effect of regulatory certainty was statistically supported. In addition, the indirect relationship suggests that income uncertainty influences economic vulnerability through changes in regulatory certainty, implying that unstable economic conditions become more harmful when regulatory protection and policy consistency are weak.

Data collection in this study was conducted through the direct distribution of structured questionnaires to small-scale producers operating in local economic sectors. The questionnaires were administered both offline and through guided assistance to ensure that respondents clearly understood each statement and measurement indicator. Assistance during the questionnaire completion process was intended to minimize response bias and improve the accuracy of the collected data. Furthermore, an initial validation process was carried out to examine the completeness, consistency, and appropriateness of respondents' answers before the data were included in the analysis stage.

Each variable in this study was measured using indicators adapted from previous literature and adjusted to the research context. Income uncertainty was measured through indicators of income fluctuations, price uncertainty, and demand instability, while institutional asymmetry was assessed through bargaining position, buyer dominance, and perceived price injustice. Regulatory certainty was measured using indicators of rule clarity, policy consistency, and legal protection. The internalization of moral values was evaluated through patience, sincerity, and value-based business orientation, whereas economic vulnerability was measured through the inability to meet basic needs, economic instability, and business risk. Data analysis was performed using SmartPLS software through several stages, including outer model evaluation to test convergent validity and reliability, inner model evaluation to examine structural relationships among variables, mediation testing to analyze the indirect role of regulatory certainty, and moderation testing to assess the interaction effect of moral value internalization on the relationships between variables.

OPERATIONAL VARIABLES

Table 5 Operational Variables

Variables	Indicator	Statement
X1 – Income Uncertainty	Income Fluctuations	1. The income I earn varies and is difficult to predict each period. 2. I am not sure how much income I will receive next month. 3. My income is highly dependent on volatile market conditions. 4. My income is often insufficient to meet my daily needs. 5. The income I earn is not commensurate with the current cost of living.
X2 – Institutional Asymmetry	Price	1. The selling price of the product is determined unilaterally and does not involve me. 2. The price I received was not commensurate with the labor and production costs. 3. I have no bargaining power in determining prices. 4. I was forced to accept the prevailing price even though it was detrimental. 5. Big investors control the market more than small producers like me. 6. I cannot avoid the dominance of large investors in business activities.

<p>Regulatory Certainty (Mediating Variable)</p>	<p>Regulatory Clarity</p>	<p>1 Government regulations regarding prices and markets are clear and easy to understand.</p> <p>2 Existing policies provide certainty for small producers like me.</p> <p>3 The government protects small producers from unfair market practices.</p> <p>4 I feel legally safe in running my business.</p> <p>5 Existing regulations favor the sustainability of small producers.</p>
<p>M – Internalization of Moral (Religious) Values – Moderator Variable</p>	<p>Religious Practices</p>	<p>1 I regularly attend religious studies or research.</p> <p>2 Religious activities are part of my daily life.</p> <p>3 Religious values help me stay calm when facing economic difficulties.</p> <p>4 Moral beliefs make me stronger in facing economic pressures.</p> <p>5 I accept economic conditions with patience and effort.</p>
<p>Y – Economic Vulnerability</p>	<p>Fulfillment of basic needs</p>	<p>1 I often have difficulty meeting my basic daily needs.</p> <p>2 My income is not enough to live decently.</p> <p>3 I can't carry out my life plans when I'm short of money.</p> <p>4 My financial condition is hindering me from achieving my life goals.</p> <p>5 I feel economically vulnerable if a small shock occurs.</p>

4. Result and Discussion

Table 6 Respondent Characteristics

Characteristics	Number	Percent
Gender		
Male	38	38 %
Female	62	62 %
Age		
...<25	7	7 %
26-34	22	22 %
35-43	29	29 %
44-52	30	30 %
53>...	12	12 %
Work		
Vegetable trader	23	23 %
Fruit trader	12	12 %
Fish trader	11	11 %
Chili trader	6	6 %
Chicken trader	9	9 %
Meat trader	5	5 %
Jenang seller	3	3 %
Tofu traders	6	6 %
Tempeh trader	5	5 %

Fried food vendor	10	10 %
Glassware trader	3	3 %
Grocery trader	7	7 %

Based on the respondent characteristics table, gender composition shows that female respondents predominate, with 62 respondents (62 percent), while male respondents number 38 (38 percent). This indicates that the economic activities studied are predominantly carried out by women, who likely play an active role in trading activities and day-to-day business management.

In terms of age, respondents were spread across a wide range, with a predominance of those in the productive age group. The 44–52 age group was the largest, at 30 percent, followed by those aged 35–43 at 29 percent, and those aged 26–34 at 22 percent. Meanwhile, respondents under 25 years old were relatively few, at only 7 percent, and those aged 53 and above at 12 percent. This pattern indicates that the majority of respondents were in the mature age phase, which generally has experience and stability in running a business.

In terms of occupation, the majority of respondents worked as vegetable vendors (23 percent). This was followed by fried food vendors (10 percent), fruit vendors and fish vendors (11 percent each), and chicken vendors (9 percent). Other businesses, such as chili, tofu, tempeh, meat, confectionery, crockery, and basic food supplies, had smaller percentages. This diversity of occupations reflects the variety of economic activities in the small-scale trading sector, which serves as the respondents' primary source of livelihood.

The structural model analysis indicates that institutional asymmetry has a strong positive and significant effect on economic vulnerability ($\beta = 0.541$, $t = 6.518$, $p < 0.001$). This finding suggests that unequal bargaining positions, buyer dominance, and perceived price injustice substantially increase the economic vulnerability experienced by small-scale producers. In contrast, income uncertainty does not have a significant direct effect on economic vulnerability ($\beta = 0.087$, $t = 1.224$, $p = 0.221$). This result indicates that fluctuations in income alone are insufficient to directly explain the economic vulnerability of small-scale producers within the observed sample.

The results further show that income uncertainty has a significant negative effect on regulatory certainty ($\beta = -0.376$, $t = 5.529$, $p < 0.001$), while institutional asymmetry also negatively affects regulatory certainty ($\beta = -0.331$, $t = 4.291$, $p < 0.001$). In addition, regulatory certainty has a significant negative effect on economic vulnerability ($\beta = -0.287$, $t = 3.878$, $p < 0.001$). These findings suggest that stronger regulatory certainty can reduce the vulnerability faced by small-scale producers by providing clearer market rules, legal protection, and policy consistency.

The mediation analysis confirms that regulatory certainty mediates the relationship between income uncertainty and economic vulnerability. This result indicates that unstable income conditions become more detrimental when accompanied by weak regulatory protection and

limited institutional support. Furthermore, the moderation analysis reveals that moral value internalization significantly weakens the effect of institutional asymmetry on economic vulnerability ($\beta = -0.194$, $t = 3.180$, $p = 0.002$). This finding suggests that producers who internalize moral values such as patience, sincerity, and value-based business orientation tend to demonstrate stronger adaptive capacity and resilience when facing structural market pressures.

Overall, the findings indicate that economic vulnerability among the sampled small-scale producers is influenced more strongly by institutional and regulatory conditions than by income fluctuations alone. Therefore, strengthening inclusive market institutions, improving regulatory certainty, and promoting ethical-economic values are important strategies for reducing vulnerability and enhancing long-term economic resilience among small-scale producers..

5. Conclusion and Suggestion

This study concludes that institutional asymmetry is the dominant factor influencing the economic vulnerability of small-scale producers in Indonesia. Structural inequalities in market relations, bargaining position, and institutional protection significantly increase producers' vulnerability and economic instability.

Conversely, income uncertainty does not have a significant direct effect on economic vulnerability. The findings suggest that small-scale producers may have developed adaptive mechanisms toward unstable income conditions. Nevertheless, income uncertainty indirectly contributes to vulnerability through weak regulatory certainty and institutional arrangements. The study also confirms the moderating role of moral value internalization in strengthening producers' resilience and adaptive capacity when facing structural market pressures. These findings imply that efforts to reduce economic vulnerability should prioritize strengthening inclusive institutions, improving regulatory certainty, and promoting ethical-economic values rather than focusing solely on income stabilization policies.

Research Limitations

This study has several limitations that need to be examined critically:

Limitations of the survey design. The data used is cross-sectional, so it cannot fully capture the dynamics of changes in economic vulnerability over the long term. This may affect the validity of causality between variables. Limitations of perception measurement. Variables such as regulatory certainty and moral values are measured based on respondents' perceptions, which can potentially contain subjective bias. Limitations of sample coverage.

The research sample is limited to small producers in a specific sector, so generalizing the results to the entire economic sector requires caution. Model Limitations: Although the model has integrated several important variables, there are still other factors such as access to finance, social networks, and technology that have not been included in the analysis.

Suggestion

Based on the results and limitations of the research, several suggestions that can be put forward are:

1. Theoretical Suggestion

Further research is recommended to:

Develop a more comprehensive model by adding other variables such as financial inclusion, social networks, and business digitalization. Use a longitudinal approach to examine the dynamics of economic vulnerability in greater depth. Integrate qualitative approaches to strengthen contextual understanding of institutional phenomena.

2. Empirical and Policy Suggestions

For policy makers and stakeholders:

Strengthen market institutions through fair, transparent, and pro-small producer regulations. Increase legal certainty and business protection, particularly in pricing and market access. Develop empowerment programs that focus not only on increasing income but also on strengthening bargaining power and institutional access.

3. Practical Advice

For small producers:

Improving adaptation strategies such as business diversification and strengthening local economic networks. Leveraging moral and social values as a source of psychological resilience, while balancing this with efforts to increase economic capacity.

Overall, this study confirms that reducing the economic vulnerability of small producers requires a holistic approach, prioritizing improvements to institutional and regulatory structures, along with continuous strengthening of individual capacity.

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