Journal of Strategic Marketing and Applied Economics
Vol. 2, No. 1, January-June 2026, pp. 1-11
DOI: https://10.59261/jsmae.v2i1.19

The Resilience of Rice Imports in Indonesia Against Rupiah Exchange Rate Fluctuations

Nawal Jazilah
Politeknik Akademi Pimpinan Perusahaan Jakarta, Indonesia
Corresponding Author: naajazz1805@gmail.com

Keywords:
resilience import; mark rupiah exchange; rice imports.

Article Info :
Accepted: 12-01-2026
Approved: .14-02-2026
Published: 14-03-2026

ABSTRACT

Background: Fluctuations in the rupiah exchange rate have the potential to impact the stability of rice imports and national food security in Indonesia. Several studies have examined the influence of exchange rates, import policies, and domestic production on rice imports, but studies examining this issue from an import resilience perspective are still limited.
Objectives: This study aims to analyze the resilience of Indonesian rice imports to rupiah exchange rate fluctuations within the framework of national food security.
Method: The method used was a literature review of scientific articles and official documents for the 2018–2024 period with thematic analysis.
Results: The results show that rice import resilience is not only determined by exchange rate stability, but also influenced by government policies, stock management, and domestic production capacity.
Implications: The novelty of this research lies in the integration of the import resilience perspective with exchange rate analysis and food policy to provide a more comprehensive understanding of import-based food resilience in Indonesia.

INTRODUCTION

In recent years, the dynamics of global food trade have shown increasing volatility, particularly due to global economic instability. particularly fluctuations in currency exchange rates. This condition has a direct impact on countries that still import staple food commodities, including Indonesia. Although rice is a basic need for the community, domestic production has not always been sufficient to meet national demand, and therefore Imports are one of the instruments used by the government to maintain food availability. When the rupiah exchange rate experiences pressure against the US dollar, import costs can rise, disrupting price stability and national rice supply. Therefore, the issue of rice import resilience has become increasingly relevant to examine in the context of Indonesian food security. Scientific studies on rice imports in Indonesia have been conducted from various sources. perspectives. Nijar & Unimal, (2019) reveal that consumption variables, local production, and macroeconomic indicators have an impact on the number of import rice.

Study as well as Juliashar et al., (2024) more focused on the impact of imports on prices and farmer welfare. However, these studies tended to focus on the causes or consequences of imports, rather than on the resilience aspect of imports. To date,

there are still limited studies that specifically examine how exchange rate changes impact Indonesia's ability to maintain stable rice imports, particularly following the increasing global economic uncertainty post-2020.

This gap underlies the need for further research. Previous studies have shown that exchange rates, import policies, and domestic production significantly influence the dynamics of rice imports in Indonesia. However, although various studies have examined the influence of exchange rates and import policies on rice import volumes, there are still limited studies that analyze this issue from the perspective of import resilience within the framework of Indonesia's national food security. Based on this gap, this article aims to examine the extent to which Indonesia's rice import resilience is affected by fluctuations in the rupiah exchange rate. Specifically, this study aims to: (1) identify the relationship between exchange rate changes and rice import volume; (2) measure the level of import resilience based on historical data movement patterns; and (3) uncover key factors that can strengthen or weaken import stability, including domestic production conditions, government policies, and international market dynamics.

This article makes an important contribution by presenting an analytical perspective on import resilience — an approach that remains underutilized in the context of food security in Indonesia. Furthermore, the use of the most recent data for the 2018–2024 period allows for a more up-to-date understanding of the relationship between exchange rates and rice imports during times of uncertainty . This article is organized into four main sections: the first section contains the introduction, the second part discusses the research methodology, the third part presents the results of the analysis and discussion, and the final part presents the conclusions and recommendations.

Global food trade dynamics have experienced increasing disruption due to exchange rate fluctuations, geopolitical tensions, and climate-related supply shocks. Kayani et al., (2023) demonstrated that exchange rate volatility asymmetrically affects trade flows in developing Asian economies, with import volumes showing varying sensitivity depending on policy frameworks and domestic demand structures. This finding underscores that Indonesia’s position as a major rice importer renders it particularly exposed to exchange rate-driven cost pressures. Similarly, Lin et al., (2023) documented that the Russia-Ukraine conflict significantly disrupted global food commodity markets, amplifying the vulnerability of net food-importing nations that depend heavily on stable currency valuations for procurement. Ben Hassen & El Bilali, (2022) further confirmed that food system resilience in import-dependent countries is fundamentally conditioned by macroeconomic stability, including exchange rate management.

Within the Indonesian context, studies have increasingly examined the interplay between rice import volume, domestic production gaps, and market price volatility. Wibawa et al., (2023) analyzed the trajectory of rice imports from 2000 to 2022 and found that Indonesia’s import decisions are primarily driven by national stock management objectives rather than pure price signals. Vadilaksono et al., (2023) highlighted persistent misalignments between rice production policies and trade policies, arguing that the absence of a comprehensive harmonization framework contributes to the unpredictability of import volumes. Putra et al.,(2021) also found significant regional disparities in domestic rice price volatility, pointing to structural weaknesses in distribution networks that compound the effects of external shocks on national food availability.

The challenge of maintaining rice import resilience has been further complicated by recurring climate anomalies and global supply disruptions. Ludher, (2023) warned that El Niño events pose a substantial threat to rice production across Southeast Asia, with Indonesia consistently among the most severely affected countries due to its dependence on rainfall-fed agriculture. Manurung et al., (2024) examined BULOG's food security strategy in 2023 and concluded that the simultaneous occurrence of El Niño-driven domestic production losses and India's rice export restriction created unprecedented procurement pressure, necessitating emergency import decisions regardless of prevailing exchange rate conditions.

From a conceptual standpoint, the resilience of import systems has been approached through multiple analytical lenses. Ruspayandi et al., (2022) evaluated Indonesia's rice price stabilization mechanisms and demonstrated that BULOG's market share and government rice reserve management play a critical role in buffering consumer prices against both domestic supply shortfalls and international price shocks. Together, these studies establish a robust theoretical foundation for analyzing Indonesia's rice import resilience not merely as a trade policy outcome, but as a multidimensional food security challenge.

The COVID-19 pandemic exposed the structural vulnerabilities of global food supply chains, including rice supply systems in Asia. Fan et al., (2021) demonstrated that while Asian food systems showed relative resilience compared to other regions, pandemic-related disruptions in supply chains and trade logistics significantly affected food availability and market stability, highlighting the need for adaptive government policy responses. Laborde et al., (2020) further warned that pandemic-induced economic contractions could threaten food security in import-dependent nations, particularly where foreign currency pressures coincide with disrupted international trade flows, a condition that directly characterized Indonesia's food security environment during 2020–2021. In Indonesia's context, Rozi et al., (2023) confirmed that rice remains a deeply inelastic commodity with a price elasticity of only 0.26, meaning that consumer demand remains stable regardless of price fluctuations — a structural characteristic that intensifies the strategic importance of maintaining stable and predictable rice import channels in the face of exchange rate volatility.

The determinants of food import demand in Indonesia extend beyond exchange rate dynamics to encompass domestic production capacity and broader macroeconomic conditions. Forgenie & N Khoiriyah, (2023) found through ARDL bounds testing that exchange rate depreciation, relative prices, and declining domestic production are the primary long-run drivers of increased food imports in Indonesia, with a confirmed long-run equilibrium relationship between these variables and aggregate import volumes. Fan et al., (2021) further demonstrated through simulation analysis that rupiah depreciation directly elevates domestic rice prices, amplifying cost burdens on consumers and increasing pressure on government import policy to maintain affordability. At the same time, Ansari et al., (2023) projected that climate change will progressively reduce Indonesia's rice production capacity through temperature increases and altered rainfall patterns, suggesting that the structural gap between domestic supply and national demand is likely to widen in the coming decades, further elevating the strategic role of rice imports within the national food security framework.

RESEARCH METHOD

Approach And Type Study

Study This use approach qualitative with method literature review. Approach This chosen For get understanding Which This comprehensive study examines the resilience of Indonesian rice imports in the face of fluctuations in the rupiah exchange rate through a review and synthesis of previous research findings. The literature review allows researchers to identify patterns, trends, and differences in study results related to the relationship between exchange rates, import policies, and the dynamics of national food security. This No aim For analyze in a way critical And systematic various relevant literature sources to build scientific arguments based on existing empirical and conceptual evidence.

Location And Time Study

This research was conducted online through searches of various national and international scientific databases. Literature sources were obtained from academic platforms. like Google Scholar, SINTA, And DOAJ, as well as from page official Government agencies, particularly the Central Statistics Agency (BPS) and Bank Indonesia (BI), provide data related to rice imports and the rupiah exchange rate. The data collection process And review literature implemented on period September 2025 to January 2026, which includes the stages of source search, literature selection and in-depth reading.

Object And Unit Analysis Study

This research does not involve human respondents or informants. The research object in the form of literature scientific And document official Which discuss import rice, value swap rupiah, as well as resilience food Indonesia. Unit analysis in This research is a journal article, institutional report, and academic publication that is relevant to the research topic. Literature Which analyzed chosen based on criteria following:

a. Published on range year 2018–2024;
b. Own relatedness direct with issue import rice, mark swap, or food security;
c. Available in form access full (full text); And
d. Originate from journal reputable or source data official.

Literature that does not meet these criteria is not included in the analysis process.

Source Data and Engineering Data collection

This study uses secondary data obtained from two types of sources. main. First, article scientific Which published on journal scientific national document that discusses the relationship between exchange rates and rice imports. Second, the official document Which published by institution government, like data statistics import rice from BPS And data mark swap rupiah from Bank Indonesia.Engineering collection Data analysis was carried out through several stages, namely literature searches using relevant keywords, initial selection based on the title and abstract, reading the text in a way comprehensive, as well as recording information important to in matrix data to facilitate the analysis process.

Instrument Study And Test Quality Data

The research instruments used were a data extraction sheet and a literature analysis matrix. These instruments were designed to identify key information from

each source, such as the research objectives, methods used, and variables. Which analyzed, as well as findings main related import rice And fluctuations exchange rate. To maintain data quality, a critical assessment of the literature used was carried out by considering the credibility of the source, the relevance of the topic, and consistency findings interresearch. Evaluation This aim ensure that the literature analyzed has adequate scientific quality and is worthy of being used as a basis for compiling research conclusions.

Technique Analysis Data

Data analysis was conducted using thematic analysis, following the procedures outlined. This approach involves a systematic six-phase process: familiarization with the data, generating initial codes, searching for themes, reviewing themes, defining and naming themes, and producing the final report.The analysis stages include:

a. Initial coding to identify key concepts and patterns in the literature;
b. Grouping code become sub-themes like "influence exchange rate on imports", "the role of import policy", and "domestic production"; and
c. Compilation theme main Which describe resilience import rice Indonesia. In addition, numerical data such as exchange rate trends and import volumes from 2018–2024 analyzed in a way descriptive For support interpretation qualitative findings.

The selection of a qualitative literature review methodology in this study is consistent with established practices in systematic evidence synthesis. (Paul et al., 2020) provide a comprehensive framework for conducting rigorous literature reviews in business and economic research, emphasizing the importance of transparent source selection criteria, thematic coherence, and critical appraisal of evidence quality. The thematic analysis approach employed in this study follows the updated guidelines of Braun et al., (2021), who clarified that thematic analysis is not merely a coding procedure but a reflexive, theoretically flexible method for generating rich qualitative insights from heterogeneous data sources. The application of these methodological principles strengthens the analytical validity of this literature review, ensuring that the synthesis of exchange rate and import resilience literature is both systematic and contextually grounded.

RESULT AND DISCUSSION

Results Study

This study analyzes the resilience of Indonesian rice imports against rupiah exchange rate fluctuations using secondary data in the form of USD/IDR exchange rates and Indonesian rice import volume for the 2018–2024 period. These two variables are used to identify annual change patterns and trends in the relationship between exchange rate dynamics and rice imports. The data is presented in tabular form to facilitate trend analysis and comparisons between periods. The rupiah exchange rate against the US dollar during the observation period shows a weakening trend in the medium term. The average annual exchange rate used in this study represents the general exchange rate conditions over the course of a year and is presented in Table 1 below.

Table 1. Average Exchange rate USD/IDR Indonesia (2018–2024)

Year	Exchange rate Average (USD/IDR)
2018	14,371
2019	14,312
2020	14,525
2021	14,296
2022	14,873
2023	15,247
2024	15.864

Estimate average based on data public Bank Indonesia 2024.

Based on Table 1, the rupiah exchange rate was relatively stable during the 2018–2021 period, despite experiencing pressure in 2020 due to global economic uncertainty. From 2022 to 2024, the rupiah showed a weakening trend. which became increasingly pronounced, with a cumulative depreciation of approximately 10.4% from 2018 (Rp14,371/USD) to 2024 (Rp15,864/USD). This sustained depreciation trend has the potential to increase the cost of importing food commodities, including rice.

In addition to the exchange rate, this study also examines the development of Indonesia's rice import volume as an indicator of the resilience of the national rice supply. presented in the form of annual volume (tonnes), as listed in Table 2 below.

Table 2. Volume Import Rice Indonesia (2018–2024)

Year	Volume Import (Ton
2018	2,250,000
2019	444,508
2020	356,286
2021	407,740
2022	429,210
2023	3,062,857
2024	4,519,420

Source: Data Processed

The data in Table 2 shows that the volume of Indonesian rice imports has decreased. considerable fluctuations throughout the study period. After reaching a peak of 2,250,000 tonnes in 2018, rice imports declined sharply by approximately 80.2% to 444,508 tonnes in 2019 and remained at relatively low levels during 2020–2022 (ranging from 356,286 to 429,210 tonnes). However, imports surged dramatically by approximately 613.7% in 2023 (reaching 3,062,857 tonnes) and increased further by approximately 47.5% in 2024 (reaching 4,519,420 tonnes). These fluctuations indicate that rice import policy is not constant but is heavily influenced by domestic production conditions and market stabilization needs.

Discussion

Based on Table 1, the rupiah exchange rate against the US dollar during the 2018–2024 period shows a gradual weakening trend. The average annual exchange rate was Rp14,371 per USD in 2018 and relatively stable until 2021, before experiencing a more significant depreciation in 2022, reaching Rp14,873 per USD.

Pressure the continue on 2023 And 2024, with The exchange rates reached Rp15,247 and Rp15,864 per USD, respectively. This pattern reflects increasing external pressure on the national economy, influenced by global uncertainty and tightening international monetary policy. However, Table 2 shows that the volume of Indonesian rice imports did not move linearly in response to exchange rate changes. On In 2018, rice imports were recorded as very high, namely around 2.25 million tonnes, even though the exchange rate rupiah Not yet is at on level depreciation Which most in. Condition This indicates that import policies during this period were more driven by need security stock And stabilization supply national, not solely due to import cost considerations arising from exchange rate fluctuations.

The sharp decline in imports in 2019, from over 2 million tonnes to approximately 444,000 tonnes, continued throughout the 2020–2022 period with volumes ranging from 356,000 to 429,000 tonnes, amid relatively fluctuating exchange rates. This fact demonstrates that Indonesia has been able to curb the rate of rice imports through import restriction policies and optimization of domestic production. Although theoretically, rupiah depreciation can increase import costs, this effect is not directly reflected in rice import volumes — a finding consistent with Nijar & Unimal, (2019) who emphasized the role of policy And production in country as factor determinant import. A very significant surge in imports occurred in 2023, when the volume of rice imports reached around 3.06 million tons, coinciding with the weakening of the rupiah to Rp15,247. per USD. Improvement import Which more from seven time fold Compared to the previous year, this indicates a shift in policy orientation, from import controls to strengthening strategic stocks. In this context, the exchange rate does not act as a limiting factor, but rather is balanced by the urgency of maintaining price stability and national rice availability.

This trend continued in 2024, with an estimated import volume of approximately 4.52 million tonnes, concurrent with a further deepening of rupiah depreciation. Quantitatively, the concurrent trends of a weakening exchange rate and increasing import volume confirm that rice is a commodity that is relatively inelastic to exchange rate movements. This finding supports the view (Safitri & Kasnelly, 2025) that rice imports in Indonesia are more responsive to domestic supply risks and social stability than mere exchange rate fluctuations. Within the framework of import resilience, these data indicate that Indonesia has the adaptive capacity to maintain rice supplies despite external pressures in the form of currency depreciation. However, this resilience still relies on short-term policy interventions through imports, rather than the structural resilience of domestic production.

The asymmetric response of rice imports to exchange rate movements observed in this study aligns with broader empirical evidence from Asian economies. Kayani et al., (2023) found that the impact of exchange rate volatility on import volumes is not uniform and depends significantly on the institutional capacity of the importing country to manage currency risk through hedging mechanisms and trade policy instruments. In Indonesia's case, the government's use of state-backed procurement through BULOG partially insulates the import channel from short-term currency pressures, explaining why rupiah depreciation did not consistently reduce import volumes during the 2018–2024 period. Putra et al., (2021) corroborated this by showing that local rice price volatility in Indonesia is more strongly driven by distribution inefficiencies and domestic procurement policies than by international price signals transmitted through the exchange rate.

The role of institutional buffer mechanisms, particularly government rice reserves managed by BULOG, emerges as a critical mediating factor in Indonesia's import resilience. Ruspayandi et al., (2022) demonstrated through an Autoregressive Distributed Lag analysis that BULOG's market share and operational stock levels are statistically significant determinants of consumer-level rice prices, with larger state stocks associated with lower price variability. This finding explains why Indonesia was able to absorb the rupiah depreciation episodes of 2022 and 2023 without experiencing commensurate import contraction—government procurement mandates effectively decoupled import decisions from commercial market logic.

The exceptional surge in rice imports during 2023 and 2024 cannot be fully understood without accounting for concurrent external supply disruptions that interacted with domestic exchange rate pressures. Ludher, (2023) documented that the El Niño event of 2023 was projected to be among the most severe in two decades, with Indonesia's rice production declining by approximately 1.2 million tonnes due to prolonged drought conditions. Simultaneously, India's imposition of export restrictions on non-Basmati rice in July 2023 reduced global supply and elevated international rice prices, further compressing Indonesia's procurement options. Manurung et al., (2024) confirmed that these compound shocks forced BULOG to aggressively scale up foreign procurement to stabilize government reserve stocks, a decision driven primarily by domestic food security imperatives rather than cost optimization under prevailing exchange rate conditions. Vadilaksono et al., (2023) argued that the recurrence of such crises reveals the structural vulnerability of Indonesia's rice supply system to external shocks and calls for a more proactive harmonization of production incentives, trade policy, and strategic reserve management. Ben Hassen & El Bilali, (2022) similarly emphasized that lasting food system resilience requires moving beyond reactive import responses toward structural investments in domestic production capacity, supply chain infrastructure, and diversification of import origins.

The empirical relationship between exchange rates and rice import volumes in Indonesia is further illuminated by demand-side evidence. Forgenie & N Khoiriyah, (2023) confirmed through ARDL cointegration analysis that exchange rate depreciation exerts a statistically significant negative effect on food imports over the long run, with domestic production playing an equally critical role in determining import volumes. This finding implies that when the rupiah weakens, the economic rationale for imports based on commercial price signals diminishes; however, government imperatives for stock stabilization effectively override these market signals, producing the paradoxical pattern of simultaneous currency depreciation and rising import volumes observed during 2023–2024. Fan et al., (2021) similarly demonstrated through simulation that rupiah depreciation directly raises domestic rice prices, generating inflationary pressure that the government must counteract through accelerated procurement and emergency import decisions. Given the inelastic demand structure confirmed by Rozi et al., (2023), these price pressures do not substantially reduce consumption levels but instead create fiscal and policy urgency that reinforces import dependency as a stabilization mechanism.

From a systemic resilience perspective, Indonesia's rice import strategy during 2020–2024 reflects the broader challenge faced by Asian food systems in maintaining supply continuity under compounding shocks. Fan et al., (2021) observed that Asian governments which responded proactively with strategic buffer stock policies and diversified import sourcing were better positioned to absorb supply disruptions

during the COVID-19 period an institutional lesson directly applicable to Indonesia's post-2022 import surge. Complementing this, Ansari et al., (2023) projected through climate-hydrological-crop modeling that Indonesia's rice yields will face increasing variability under climate change scenarios, particularly in major production regions of Java and Sumatra, reinforcing the structural dependence on imports as a residual supply mechanism. Collectively, these findings suggest that building long-term import resilience in Indonesia requires not only exchange rate management and stock policy but also sustained investment in climate-adaptive domestic rice production to gradually reduce the structural vulnerability gap that drives emergency import decisions.

CONCLUSION

This study concludes that rupiah exchange rate fluctuations significantly influence Indonesia's rice import resilience, but do not act in isolation. Rupiah depreciation raises import costs and threatens supply stability, particularly when domestic production is insufficient. However, government interventions—including import quotas, the Highest Retail Price (HET) policy, and emergency procurement—have proven more decisive than exchange rate movements, as evidenced by the dramatic import surge in 2023–2024. Rice import resilience is therefore the product of interaction between external factors (exchange rates, international prices) and internal factors (government policy, domestic production, stock management). To strengthen long-term resilience, a dual strategy is recommended: maintaining exchange rate stability through macroeconomic coordination, and improving risk-based import management through diversification of import origins and expansion of domestic production capacity.

ACKNOWLEDGEMENT

The author expresses his deepest appreciation to all those who provided academic support in the preparation of this article. Special thanks are extended to the lecturers in charge of the Indonesian Language course for their guidance, guidance, and constructive input, which were extremely helpful in the writing and refinement of this article. The author also appreciates the Central Statistics Agency (BPS) and Bank Indonesia for providing official data, which served as the primary references in this research analysis. All limitations and shortcomings in this article are the sole responsibility of the author.

REFERENCES

Ansari, A., Pranesti, A., Telaumbanua, M., Alam, T., Taryono, Wulandari, R. A., Nugroho, B. D. A., & Supriyanta. (2023). Evaluating the effect of climate change on rice production in Indonesia using multimodelling approach. *Cell.ComA Ansari, A Pranesti, M Telaumbanua, T Alam, RA Wulandari, BDA NugrohoHeliyon, 2023•cell.Com*, *9*(9). https://doi.org/10.1016/j.heliyon.2023.e19639

Ben Hassen, T., & El Bilali, H. (2022). Impacts of the Russia-Ukraine war on global food security: towards more sustainable and resilient food systems? *Mdpi.ComT Ben Hassen, H El BilaliFoods, 2022•mdpi.Com*, *11*(15). https://doi.org/10.3390/foods11152301

Braun, V., sport, V. C.-Q. research in, and, exercise, & 2021, undefined. (2021). To saturate or not to saturate? Questioning data saturation as a useful concept for

thematic analysis and sample-size rationales. *Taylor & FrancisV Braun, V ClarkeQualitative Research in Sport, Exercise and Health, 2021•Taylor & Francis*, *13*(2), 201–216. https://doi.org/10.1080/2159676X.2019.1704846

Fan, S., Teng, P., Chew, P., Smith, G., & Copeland, L. (2021). Food system resilience and COVID-19–Lessons from the Asian experience. *Elsevier*, *28*. https://doi.org/10.1016/j.gfs.2021.100501

Forgenie, D., & N Khoiriyah. (2023). Analyzing food import demand in Indonesia: an ARDL bounds testing approach. *Researchgate.NetD Forgenie, N KhoiriyahInternational Journal of Food and Agricultural Economics, 2023•researchgate.Net*. https://doi.org/10.22004/AG.ECON.330861

Juliashar, F., Tatimah, K., Aqilah, N., Abiyyah, S., & Wikansari, R. (2024). Pengaruh Impor Beras Asal Thailand Dan Vietnam terhadap Kestabilan Harga Beras di Indonesia. *E-Jurnal.Unisda.Ac.IdF Juliashar, K Tatimah, NAS Abiyyah, R WikansariAGRORADIX: Jurnal Ilmu Pertanian, 2024•e-Jurnal.Unisda.Ac.Id*, *7*(2), 1–11. https://doi.org/10.52166/agroteknologi.v7i2.5518

Kayani, U. N., Aysan, A. F., Gul, A., Haider, S. A., & Ahmad, S. (2023). Unpacking the asymmetric impact of exchange rate volatility on trade flows: A study of selected developed and developing Asian economies. *Journals.Plos.OrgUN Kayani, AF Aysan, A Gul, SA Haider, S AhmadPlos One, 2023•journals.Plos.Org*, *18*(10 October). https://doi.org/10.1371/journal.pone.0291261

Laborde, D., Martin, W., Swinnen, J., & Vos, R. (2020). COVID-19 risks to global food security. *Science.OrgD Laborde, W Martin, J Swinnen, R VosScience, 2020•science.Org*, *369*(6503), 500–502. https://doi.org/10.1126/science.abc4765

Lin, F., Li, X., Jia, N., Feng, F., Huang, H., Huang, J., Fan, S., Ciais, P., & Song, X. P. (2023). The impact of Russia-Ukraine conflict on global food security. *Elsevier*, *36*. https://doi.org/10.1016/j.gfs.2022.100661

Ludher, E. , & T. P. (2023). *Rice production and food security in Southeast Asia under threat from El Niño*.

Manurung, G., Sastrodiharjo, I., & Hendayana, Y. (2024). The Impact of Climate Change on Indonesia's Food Security Strategy Undertaken by Bulog in 2023. *Dinasti International Journal of Economics, Finance & Accounting*, *5*(3), 1988–1994. https://doi.org/10.38035/dijefa.v5i3.3204

Nijar, J., & Unimal, T. A. (2019). Faktor-Faktor Yang Mempengaruhi Impor Beras Indonesia. *Ojs.Unimal.Ac.Id*, *02*. https://ojs.unimal.ac.id/JEPU/article/view/1793

Paul, J., review, A. C.-I. business, & 2020, undefined. (2020). The art of writing literature review: what do we know and what do we need to know? *ElsevierJ Paul, AR CriadoInternational Business Review, 2020•Elsevier*, *29*(4). https://doi.org/10.1016/j.ibusrev.2020.101717

Putra, A. W., Supriatna, J., Koestoer, R. H., & Soesilo, T. E. B. (2021). Differences in local rice price volatility, climate, and macroeconomic determinants in the Indonesian market. *Mdpi.ComAW Putra, J Supriatna, RH Koestoer, TEB SoesiloSustainability, 2021•mdpi.Com*, *13*(8). https://doi.org/10.3390/su13084465

Rozi, F., Santoso, A. B., Mahendri, I. G. A. P., Hutapea, R. T. P., Wamaer, D., Siagian, V., Elisabeth, D. A. A., Sugiono, S., Handoko, H., Subagio, H., & Syam, A. (2023). Indonesian market demand patterns for food commodity sources of carbohydrates in facing the global food crisis. *Cell.ComF Rozi, AB Santoso, IGAP Mahendri, RTP Hutapea, D Wamaer, V Siagian, DAA ElisabethHeliyon, 2023•cell.Com*, *9*(6). https://doi.org/10.1016/j.heliyon.2023.e16809

Ruspayandi, T., Bantacut, T., Arifin, B., & Fahmi, I. (2022). Market-approach-based policy to achieve rice price stability in Indonesia—Can it be a complement? *Mdpi.ComT Ruspayandi, T Bantacut, B Arifin, I FahmiEconomies, 2022•mdpi.Com*, *10*(12). https://doi.org/10.3390/economies10120296

Vadilaksono, M., & Y. S.-J. of M., & 2023, undefined. (2023). Harmonization Of Rice Production Policy And Rice Trade Policy In Indonesia. *Search.Ebscohost.ComMI Vadilaksono, Y SyaukatJournal of Management & Agribusiness/Jurnal Manajemen & Agribisnis, 2023•search.Ebscohost.Com*. https://doi.org/10.17358/jma.20.1.154

Wibawa, N. C., Ardini, H., Hermawati, G., Firdausa, R. N., Anggoro, K. B., & Wikansari, R. (2023). Analisis Impor Beras Di Indonesia Dan Faktor-Faktor Yang Memengaruhi Impor Beras. *Ejournal.45mataram.Ac.IdNC Wibawa, H Ardini, G Hermawati, RN Firdausa, KB Anggoro, R WikansariJurnal Economina, 2023•ejournal.45mataram.Ac.Id*, *2*(2), 574–585. https://doi.org/10.55681/economina.v2i2.337