

Sadik Ikhsan <sikhsan@ulm.ac.id>

# Manuscript Status Update On (ID: 10435960): Current Status – Under Peer Review- Analyzing the Spatial Integration of Rice Market in South Kalimantan Province, Indonesia: using Vector Error Correction Model (VECM)

10 messages

Mon, Nov 27, 2023 at 6:48 PM

To: sikhsan@ulm.ac.id

Dear Sadik Ikhsan,

Thank you very much for submitting your manuscript to HRPUB.

In order to expedite the publication process, your manuscript entitled "Analyzing the Spatial Integration of Rice Market in South Kalimantan Province, Indonesia: using Vector Error Correction Model (VECM)" has been sent out to evaluate.

But some problems need to be addressed.

We would be grateful to you if you could revise your manuscript according to the following comments:

1. Figure 1 and figure 2 are unclear. Please provide us the figures with high resolution to allow for reading the details of them. And make sure that all lines and lettering within the figures are legible at final size.

#### \*Please highlight the changes you have made.

Kindly respond to the evaluation and send your revised manuscript to <a href="mailto:preview.hrpub@gmail.com">preview.hrpub@gmail.com</a> as soon as possible. Please track status of your manuscript through the Online Manuscript Tracking System.

We will contact you again once a new decision is made on your manuscript. You will expect a review report from Anthony Robinson (revision.hrpub@gmail.com) in the following 45 days. Peer review reports are also downloadable in Online Manuscript Tracking System (http://www.hrpub.org/submission/login.php) once the review process is completed.

#### The author will be requested to pay the Article Processing Charges after the manuscript is accepted for publication.

For the charging standard, please refer to http://www.hrpub.org/journals/jour charge.php?id=04

Please feel free to contact us if you have any questions. Besides, could you please leave us an alternate Email Address in case?

For more information, please visit the journal's homepage.

Guidelines: http://www.hrpub.org/journals/jour\_guidelines.php?id=04

Please acknowledge receipt of this email.

#### Best Regards

Chloe Crawford Editorial Assistant preview.hrpub@gmail.com Horizon Research Publishing, USA http://www.hrpub.org

Sadik Ikhsan <sikhsan@ulm.ac.id>

Wed, Dec 13, 2023 at 11:26 PM

I have received the email and I will do the suggestion. Thnx

[Quoted text hidden]

Thu, Dec 14, 2023 at 9:20 AM

To: Sadik Ikhsan <sikhsan@ulm.ac.id>

Dear Sadik Ikhsan,

Thank you for your email.

Look forward to receiving your revised paper. Please submit the revised paper to us via this email.

Best Regards

Chloe Crawford
Editorial Assistant
preview.hrpub@gmail.com
Horizon Research Publishing, USA
http://www.hrpub.org

[Quoted text hidden]

Sadik Ikhsan <sikhsan@ulm.ac.id>

Fri, Dec 15, 2023 at 8:38 AM

Dear Chloe Crawford,

I have revised the Figure 1 and Figure 2 in my paper titled "Analyzing the Spatial Integration of Rice Market in South Kalimantan Province, Indonesia: using Vector Error Correction Model (VECM)" with high resolution according to your suggestion. I give a highlight in the title of figure meaning that the body of the figure had been corrected. Please check the attachment. I hope that it will meet your expectations. Thanks [Quoted text hidden]

W

2023 Ikhsan - rev.1b Analyzing the Spatial Integration of Rice Market.docx 1523K

Fri, Dec 15, 2023 at 9:38 AM

To: Sadik Ikhsan <sikhsan@ulm.ac.id>

Dear Sadik Ikhsan,

Thank you for your email.

We have received your paper, but some problems need to be addressed.

We would be grateful to you if you could revise your manuscript according to the following comments:

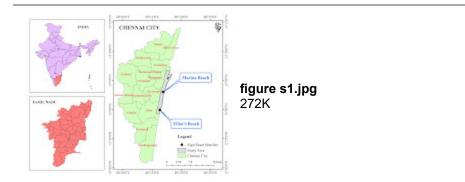
1. Figure 1 is unclear. Please send us a high-resolution version. Pay attention to the text within the figures, they are not seen properly.

Look forward to hearing from you soon.

**Best Regards** 

Chloe Crawford Editorial Assistant preview.hrpub@gmail.com Horizon Research Publishing, USA http://www.hrpub.org

[Quoted text hidden]



Sadik Ikhsan <sikhsan@ulm.ac.id>

Mon, Dec 18, 2023 at 4:24 PM

#### **Dear Chloe Crawford,**

Thank you for your email. You gave me a good example of a map there. I have worked to prepare a suitable map like the example for Figure 1 of my paper. Please check the attachment. I sent back the revision of my paper. Hopefully that will meet your expectations. Thanks

Best Regards

Sadik Ikhsan

[Quoted text hidden]



# 2023 Ikhsan - rev.2 Analyzing the Spatial Integration of Rice Market.docx 1491K

#### 

Tue, Dec 19, 2023 at 10:01 AM

To: Sadik Ikhsan <sikhsan@ulm.ac.id>

Dear Sadik Ikhsan,

Thank you for your email.

We have received your paper, but some problems need to be addressed.

We would be grateful to you if you could revise your manuscript according to the following comments:

1. Some texts in figure 1 are still unclear. Please make sure that all lines and texts within the figures are legible at final size.

Look forward to hearing from you soon.

**Best Regards** 

Chloe Crawford Editorial Assistant preview.hrpub@gmail.com Horizon Research Publishing, USA http://www.hrpub.org

[Quoted text hidden]

Sadik Ikhsan <sikhsan@ulm.ac.id>

Thu, Dec 21, 2023 at 7:10 AM

Dear Chloe Crawford,

I sent you another revision of my manuscript titled "Analyzing the Spatial Integration of Rice Market in South Kalimantan Province, Indonesia: using Vector Error Correction Model (VECM)". I changed the layout of the manuscript and enlarged the map so that some texts in figure 1 could be written in larger font size. I also changed the color of the map in order to highlight the observation area of research. Please check the attachment. I hope it will meet your expectations. Thanks.

#### Best regards

Sadik Ikhsan



## 2023 Ikhsan - rev.3 Analyzing the Spatial Integration of Rice Market.docx 814K

**Chloe Crawford** cpreview.hrpub@gmail.com>
To: Sadik lkhsan <sikhsan@ulm.ac.id>

Thu, Dec 21, 2023 at 10:29 AM

Dear Sadik Ikhsan,

Thank you for your email.

We have received your paper. If further revision is required, we will contact you again.

Best Regards

Chloe Crawford
Editorial Assistant
preview.hrpub@gmail.com
Horizon Research Publishing, USA
http://www.hrpub.org

[Quoted text hidden]

**Sadik Ikhsan** <sikhsan@ulm.ac.id>
To: Chloe Crawford cpreview.hrpub@gmail.com>

Thu, Dec 21, 2023 at 10:33 PM

Yes Chloe Crawford. Thank you

Best regards, Sadik Ikhsan



Sadik Ikhsan <sikhsan@ulm.ac.id>

# Manuscript Status Update On (ID: 10435960): Current Status – Under Peer Review- Analyzing the Spatial Integration of Rice Market in South Kalimantan Province, Indonesia: using Vector Error Correction Model (VECM)

12 messages

Mon, Nov 27, 2023 at 6:48 PM

To: sikhsan@ulm.ac.id

Dear Sadik Ikhsan,

Thank you very much for submitting your manuscript to HRPUB.

In order to expedite the publication process, your manuscript entitled "Analyzing the Spatial Integration of Rice Market in South Kalimantan Province, Indonesia: using Vector Error Correction Model (VECM)" has been sent out to evaluate.

But some problems need to be addressed.

We would be grateful to you if you could revise your manuscript according to the following comments:

1. Figure 1 and figure 2 are unclear. Please provide us the figures with high resolution to allow for reading the details of them. And make sure that all lines and lettering within the figures are legible at final size.

#### \*Please highlight the changes you have made.

Kindly respond to the evaluation and send your revised manuscript to <a href="mailto:preview.hrpub@gmail.com">preview.hrpub@gmail.com</a> as soon as possible. Please track status of your manuscript through the Online Manuscript Tracking System.

We will contact you again once a new decision is made on your manuscript. You will expect a review report from Anthony Robinson (revision.hrpub@gmail.com) in the following 45 days. Peer review reports are also downloadable in Online Manuscript Tracking System (http://www.hrpub.org/submission/login.php) once the review process is completed.

#### The author will be requested to pay the Article Processing Charges after the manuscript is accepted for publication.

For the charging standard, please refer to http://www.hrpub.org/journals/jour charge.php?id=04

Please feel free to contact us if you have any questions. Besides, could you please leave us an alternate Email Address in case?

For more information, please visit the journal's homepage.

Guidelines: http://www.hrpub.org/journals/jour\_guidelines.php?id=04

Please acknowledge receipt of this email.

#### Best Regards

Chloe Crawford Editorial Assistant preview.hrpub@gmail.com Horizon Research Publishing, USA http://www.hrpub.org

Sadik Ikhsan <sikhsan@ulm.ac.id>

Wed, Dec 13, 2023 at 11:26 PM

I have received the email and I will do the suggestion. Thnx

[Quoted text hidden]

Thu, Dec 14, 2023 at 9:20 AM

To: Sadik Ikhsan <sikhsan@ulm.ac.id>

Dear Sadik Ikhsan,

Thank you for your email.

Look forward to receiving your revised paper. Please submit the revised paper to us via this email.

Best Regards

Chloe Crawford
Editorial Assistant
preview.hrpub@gmail.com
Horizon Research Publishing, USA
http://www.hrpub.org

[Quoted text hidden]

Sadik Ikhsan <sikhsan@ulm.ac.id>
To: Chloe Crawford creview.hrpub@gmail.com>

Fri, Dec 15, 2023 at 8:38 AM

Dear Chloe Crawford,

I have revised the Figure 1 and Figure 2 in my paper titled "Analyzing the Spatial Integration of Rice Market in South Kalimantan Province, Indonesia: using Vector Error Correction Model (VECM)" with high resolution according to your suggestion. I give a highlight in the title of figure meaning that the body of the figure had been corrected. Please check the attachment. I hope that it will meet your expectations. Thanks



2023 Ikhsan - rev.1b Analyzing the Spatial Integration of Rice Market.docx 1523K

**Chloe Crawford** cpreview.hrpub@gmail.com>

Fri, Dec 15, 2023 at 9:38 AM

To: Sadik Ikhsan <sikhsan@ulm.ac.id>

Dear Sadik Ikhsan,

Thank you for your email.

We have received your paper, but some problems need to be addressed.

We would be grateful to you if you could revise your manuscript according to the following comments:

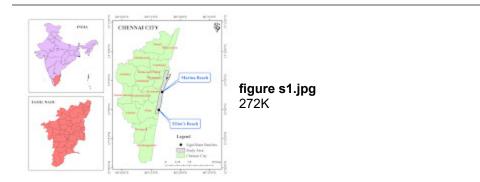
1. Figure 1 is unclear. Please send us a high-resolution version. Pay attention to the text within the figures, they are not seen properly.

Look forward to hearing from you soon.

Best Regards

Chloe Crawford Editorial Assistant preview.hrpub@gmail.com Horizon Research Publishing, USA http://www.hrpub.org

[Quoted text hidden]



Sadik Ikhsan <sikhsan@ulm.ac.id>

Mon, Dec 18, 2023 at 4:24 PM

#### **Dear Chloe Crawford,**

Thank you for your email. You gave me a good example of a map there. I have worked to prepare a suitable map like the example for Figure 1 of my paper. Please check the attachment. I sent back the revision of my paper. Hopefully that will meet your expectations. Thanks

Best Regards

Sadik Ikhsan

[Quoted text hidden]



# 2023 Ikhsan - rev.2 Analyzing the Spatial Integration of Rice Market.docx 1491K

# Chloe Crawford chloe

Tue, Dec 19, 2023 at 10:01 AM

Dear Sadik Ikhsan,

Thank you for your email.

We have received your paper, but some problems need to be addressed.

We would be grateful to you if you could revise your manuscript according to the following comments:

1. Some texts in figure 1 are still unclear. Please make sure that all lines and texts within the figures are legible at final size.

Look forward to hearing from you soon.

**Best Regards** 

Chloe Crawford Editorial Assistant preview.hrpub@gmail.com Horizon Research Publishing, USA http://www.hrpub.org

[Quoted text hidden]

Sadik Ikhsan <sikhsan@ulm.ac.id>

Thu, Dec 21, 2023 at 7:10 AM

Dear Chloe Crawford,

I sent you another revision of my manuscript titled "Analyzing the Spatial Integration of Rice Market in South Kalimantan Province, Indonesia: using Vector Error Correction Model (VECM)". I changed the layout of the manuscript and enlarged the map so that some texts in figure 1 could be written in larger font size. I also changed the color of the map in order to highlight the observation area of research. Please check the attachment. I hope it will meet your expectations. Thanks.

#### Best regards

Sadik Ikhsan



# 2023 Ikhsan - rev.3 Analyzing the Spatial Integration of Rice Market.docx 814K

To: Sadik Ikhsan <sikhsan@ulm.ac.id>

Thu, Dec 21, 2023 at 10:29 AM

Dear Sadik Ikhsan.

Thank you for your email.

We have received your paper. If further revision is required, we will contact you again.

**Best Regards** 

Chloe Crawford
Editorial Assistant
preview.hrpub@gmail.com
Horizon Research Publishing, USA
http://www.hrpub.org

[Quoted text hidden]

Sadik Ikhsan <sikhsan@ulm.ac.id>

Thu, Dec 21, 2023 at 10:33 PM

To: Chloe Crawford cpreview.hrpub@gmail.com>

Yes Chloe Crawford. Thank you

Best regards, Sadik Ikhsan

[Quoted text hidden]

Wed, Apr 3, 2024 at 7:40 PM

To: Sadik Ikhsan <sikhsan@ulm.ac.id>

Dear Sadik Ikhsan,

We are pleased to inform you that your paper has been published, please refer to the following information for detail:

PaperID: 10435960

ONLINE INFO: https://www.hrpub.org/journals/article\_info.php?aid=14111

DOWNLOADABLE FULL-TEXT: https://www.hrpub.org/download/20240330/UJAR6-10435960.pdf

Please feel free to contact us if you have any questions.

Best Regards

4/10/24, 11:45 PM Universitas Lambung Mangkurat Mail - Manuscript Status Update On (ID: 10435960): Current Status - Under Peer Review-Analyzing the Spatial Integration of Rice Market in Sout...

Chloe Crawford Editorial Assistant preview.hrpub@gmail.com Horizon Research Publishing, USA http://www.hrpub.org

[Quoted text hidden]

**Sadik Ikhsan** <sikhsan@ulm.ac.id>
To: Chloe Crawford cpreview.hrpub@gmail.com>

Fri, Apr 5, 2024 at 9:31 AM

Dear Chloe Crawford,

Thank you very much for your information.

Regard, Sadik Ikhsan



Sadik Ikhsan <sikhsan@ulm.ac.id>

#### Information about Manuscript Status Update (ID: UJAR-10435960-20231122-042290.docx)

2 messages

**Sadik Ikhsan** <sikhsan@ulm.ac.id> To: revision.hrpub@gmail.com Sat, Feb 3, 2024 at 7:11 AM

Dear Mr. Anthony Robinson (revision.hrpub@gmail.com)

May I know the information of review progress about my manuscript (ID: UJAR-10435960-20231122-042290.docx) titled Analyzing the Spatial Integration of Rice Market in South Kalimantan Province, Indonesia: using Vector Error Correction Model (VECM). I was submitted at 2023-11-22, 07:22:29 for Universal Journal of Agricultural Research. As I saw in Online Manuscript Tracking System it was still under peer review.

Thank you.

Best regards Sadk Ikhsan Lecturer of Lambung Mangkurat University - Indonesia sikhsan@ulm.ac.id

**Anthony Robinson** <revision.hrpub@gmail.com> To: Sadik lkhsan <sikhsan@ulm.ac.id>

Sun, Feb 4, 2024 at 11:13 AM

Dear Sadk Ikhsan,

Thank you for your email.

We will get back to you as soon as possible.

Best Regards

Anthony Robinson
Editorial Assistant
revision.hrpub@gmail.com

3/13/24, 10:50 PM

Universitas Lambung Mangkurat Mail - Information about Manuscript Status Update (ID: UJAR-10435960-20231122-042290.docx)

Horizon Research Publishing, USA http://www.hrpub.org

# **Peer Review Report**

#### **Notes**

Please return the completed report by email within 21 days;

#### **About HRPUB**

Horizon Research Publishing, USA (HRPUB) is a worldwide open access publisher serving the academic research and scientific communities by launching peer-reviewed journals covering a wide range of academic disciplines. As an international academic organization for researchers & scientists, we aim to

provide researchers, writers, academic professors and students the most advanced research achievements in a broad range of areas, and to facilitate the academic exchange between them.					
Manuscript	t Info	ormation			
Manuscript ID:	10435	435960			
Manuscript Title:		nalyzing the Spatial Integration of Rice Market in South Kalimantan Province, Indonesia: Ising Vector Error Correction Model (VECM)			
Evaluation	Rep	ort			
General Comme	F	This research aims to test existence of integration in rice markets in South Kalimantan Province, Indonesia			
A dyantaga &		Advantage: The research studies market integration because it provides insights into the performance of price signal transmission between interconnected markets.  Disadvantage: The research has not describe the factors that affect the price itself in depth.			
		It will be better id there are more explanations for the different factors that affect price in depth.			
Please rate the foll	lowing:	(1 = Excellent) (2 = Good) (3 = Fair) (4 = Poor)			
Originality:		1			
Contribution to the Field:		1			
Technical Quality:		1			
Clarity of Presentation:		1			
Depth of Research:		2			
Recommer	ndati	on			

Kindly mark with a ■				
☐Accept As It Is				
■ Requires Minor Revision				
☐ Requires Major Revision				
☐ Reject				

**Return Date:** 



# **Peer Review Report**

#### **Notes**

Please return the completed report by email within 21 days;

#### **About HRPUB**

Horizon Research Publishing, USA (HRPUB) is a worldwide open access publisher serving the academic research and scientific communities by launching peer-reviewed journals covering a wide range of academic disciplines. As an international academic organization for researchers & scientists, we aim to provide researchers, writers, academic professors and students the most advanced research achievements in a broad range of areas, and to facilitate the academic exchange between them.

disciplines. As an international academic organization for researchers & scientists, we aim to provide researchers, writers, academic professors and students the most advanced research achievements in a broad range of areas, and to facilitate the academic exchange between them.					
Manuscript	Infor	mation			
Manuscript ID:	Manuscript ID: 10435960				
Manuscript Title:		Analyzing the Spatial Integration of Rice Market in South Kalimantan Province, Indonesia: using Vector Error Correction Model (VECM)			
Evaluation	Repo	rt			
General Comments		e researched question addressed by the author(s) is important and undoubtedly relevant to current dynamics of food production and trade worldwide. The study of interconnected arkets through the price transmission has its very practical implications for shock/stress mulation scenarios. The paper is clear, following the logical standard structure defining the jective, methodology, results, and conclusions in appropriate manner. The tables/figures astrate properly the topic, data and results. The quality of data is acceptable and the alysis is correct.			
Advantage & Disadvantage		well defined choice of method based on the vector autoregressive model and its correct plication unbiased discussion of results which much the results  weak conclusion part which only repeat the already said in the previous part — should be essed what is the author(s) understanding of the results for current state and future studies its key for the author(s) to prove what is/are the new knowledge/insights that add to the isting researches			
How to improve		strengthen the discussion and conclusion part.			
Please rate the foll	owing: (1	= Excellent) (2 = Good) (3 = Fair) (4 = Poor)			
Originality:		2			
Contribution to the	e Field:	1			
Technical Quality:		1			

http://www.hrpub.org/

Return Date:

Clarity of Presentation:	1				
Depth of Research:	2				
Recommendation	on				
Kindly mark with a ■					
☐ Accept As It Is					
Requires Minor Revisi	Requires Minor Revision				
☐ Requires Major Revisi	on				
☐ Reject					

# Analyzing the Spatial Integration of Rice Market in South Kalimantan Province, Indonesia: using Vector Error Correction Model (VECM)

Sadik Ikhsan<sup>1\*</sup>, Djoko Santoso<sup>2</sup>, Yuriadi Ilmi<sup>1</sup>, Dea Etna Ananda<sup>1</sup>

<sup>1</sup> Magister of Agricultural Economics Study Program, Faculty of Agriculture ULM, Banjarbaru, 70714 South Kalimantan, Indonesia <sup>2</sup> Agribusiness Study Program, Faculty of Agriculture ULM, Banjarbaru, 70714 South Kalimantan, Indonesia \*Corresponding Author: sikhsan@ulm.ac.id

Copyright©2021 by authors, all rights reserved. Authors agree that this article remains permanently open access under the terms of the Creative Commons Attribution License 4.0 International License

**Abstract** Market integration plays a key role in ensuring prevailed price signal in a market is well transmitted to the other spatially connected markets. The actors in the market will get symmetrical information to prevent one party from exploiting another to get excessive arbitrage profit. This research aims to test existence of integration in rice markets in South Kalimantan Province, Indonesia. Weekly composite rice price in three market locations, namely Banjarmasin City, Tabalong, and Kotabaru from July 2020 to March 2023 was observed. The unit root test to check stationarity data and the cointegration test were carried out. The ADF unit root test results showed that data is not stationary but becomes stationary after being differencing in level one. Johansen's cointegration results showed that there is a cointegration that represents long-term equilibrium between price variables. Due to the non-stationarity of data and the presence of cointegration, the Vector Error Correction Model (VECM) is used. The estimation results showed dominant and linear influences of rice price in Banjarmasin over rice price in Kotabaru, reviewed from significant level and elasticity amount in the cointegration equation, and its consistency with the results of Granger pairwise causality test and Impulse Response Function (IRF) graphic description.

**Keywords** Market integration, Stationary, Cointegration, VAR, VECM

#### 1. Introduction

In establishing prices over goods, the market individually does not only stands alone as determiner demand and supply in the market but is also affected by the power formed through buyer and seller behavior in the other connected markets. Each market develops mechanisms to transmit price signal on each market and other substitutional possibilities on a certain level to other related markets [1,2] so that those markets are integrated. Market integration is interpreted as the actual situation when price of good among markets move

together to adjust so that the price difference is only because of transfer cost [3]. If goods trading occurs between two areas, the price of the importing area is as much as the price of the exporting area and added to the costs of transporting goods between those two areas. When this is happening, those two markets are considered to be spatially integrated as a single market [4,5].

Integration, according to Barrett[6] and Fackler & Goodwin[7], covers the Law of One Price (LOP) in some other forms. In that LOP framework, when trading occurs and every possible arbitrage profit is removed, the maximum price developed is as much as the cost of commerce. Dawson & Dey[8] explained LOP as the following statement: if the trade occurs between two markets, the price of the importing market should be as much as the exporting market and has additional transportation costs.

The price transmitting process from one market to another is the key to discovering whether market integration is perfectly carried out and market efficiency is developed. According to Meyer & von Cramon-Taubadel[9], in symmetric price transmission, price changes in one market will be followed by symmetric changes in other markets. In the other non-integrated markets, the price information may be inaccurate, thus distorting producers' marketing decisions and contributing to inefficient goods movement [10]. Therefore, according to Conforti[11], the extent to which price transmission takes place will provide an illustration of market efficiency, which means that the market structure is approaching a competitive model, as well as indicating that the price signals are consistently conveyed among markets.

Integration becomes an important measure of market efficiency. Its existence pushes resources to be distributed efficiently, reduces social cost, also maximizes social welfare. On the contrary, segmented markets has a negative impact on the development of market health, increase deadweight loss that occurs in society, and generally reduce economic efficiency [12]. The existence of market integration has important implications for regulations and

government economic policy, especially in international trade. If the market is internationally integrated, government intervention in a country will be ineffective or over-priced [5]. Baulch[3] showed market integration as a pre-condition to ensure that the benefits of liberalization which is the common component in structural adjustment programs and marketing reformation which is generally implemented in developing countries can be realized. The outcome of this liberalization is expected to encourage the development of static allocative efficiency and long-term agricultural development. The absence of market integration drives price signals that are not transmitted properly through the marketing chain and farmers fail to specialize according to their comparative advantages. In Indonesia, Makbul & Ratnaningtyas[13] and Makbul et al[14] questioned the existence of transmission between paddy and rice prices in determining the success of food policy. If the paddy and rice markets are integrated, paddy and rice prices will influence each other both in the short term and long term. Depending on the degree of ongoing transmission, whether or not the policy to increase the rice prices on the consumer side will improve the income of rice farmers and become a stimulant to increase production, or on the other hand, on the customer side, the policy will decrease their real income and eventually elevate poverty as well as decrease food security in Indonesia.

Many instruments and models have been developed and are widely applied to test market integration —starting with bivariate correlation coefficients which are developed and then expanded using autoregressive distributed lags, cointegration, error correction model (ECM), and Granger causality [3]. Cointegration is two or more variable properties of price series that indicate the existence of longterm market integration [15].

This article was written based on the research results on the spatial integration of the rice markets in South Kalimantan Province which involves markets in Banjarmasin City, Kotabaru Regency, and Tabalong Regency which was constructed using the VAR (Vector Autoregression) model approach.

#### 2. Materials and Methods

#### 2.1. Research Location

This research was conducted in South Kalimantan Province, Indonesia, taking observation areas in Banjarmasin City, Tabalong Regency, and Kotabaru Regency (Figure 1). All three are spatial representations of the South Kalimantan region.

Banjarmasin City is an urban and commercial area, formerly the capital of South Kalimantan Province, before moving to Banjarbaru City which is 40 km from Banjarmasin City and located in the south part of South Kalimantan Province. Banjarmasin market areas get rice supplies from the surrounding areas which are rice production centers, namely Barito Kuala Regency and Banjar Regency. The market area

in Tabalong Regency is in the northern part of South Kalimantan Province. Tabalong Regency has rice buffer stock from the surrounding areas where there are rice fields known as Banua Enam, consisting of Balangan Regency, Hulu Sungai Utara Regency, Hulu Sungai Tengah Regency, Hulu Sungai Selatan Regency, Tapin Regency, and Tabalong Regency. The market area in Kotabaru Regency is southeast of South Kalimantan Province, on an island called Pulau Laut which is separated from the main island of Kalimantan. The geographical position of each market gives integration patterns that are built among these three.

#### 2.2. Data

The data used in the research is weekly time series data on average consumer prices for rice, starting from the first week of July 2020 until the 4th week of May 2023. The data was taken from the three markets which consists of 152 data for each market. The data is a composite of various types of rice traded in the markets which are averaged as an approach to rice as a homogeneous commodity. The data was obtained from the Central Bureau of Statistics (BPS) in South Kalimantan Province which periodically conducts field surveys on rice prices in three markets as a representation of the prevailing prices in South Kalimantan for compiling the Customer Price Index (CPI) and inflation statistics in South Kalimantan. The analyzed data was previously transformed into the ln function to accommodate the a priori assumption that generally, the relationship between economic variables is not linear. Thus, in the notation, LNPB, LNPT, LNPK are used respectively for the rice price variable (in ln) in Banjarmasin City, Tabalong Regency, and Kotabaru Regency.

#### 2.2. Analysis Methods

Integration between markets in Banjarmasin City, Tabalong Regency, and Kotabaru Regency is constructed using the VAR (Vector Autoregressive) model, as follows.

(Vector Autoregressive) model, as follows.   
LNPB<sub>t</sub> = 
$$\alpha_{10} + \sum_{j=1}^{k} \beta_{1j} \text{ LNPB}_{t-1} + \sum_{j=1}^{k} \gamma_{1j} \text{ LNPT}_{t-1} + \sum_{j=1}^{k} \delta_{1j} \text{ LNPK}_{t-1} + \epsilon_{1t}$$
 (1a)  
LNPT<sub>t</sub> =  $\alpha_{20} + \sum_{j=1}^{k} \beta_{2j} \text{ LNPT}_{t-1} + \sum_{j=1}^{k} \gamma_{2j} \text{ LNPK}_{t-1} + \sum_{j=1}^{k} \delta_{2j} \text{ LNPB}_{t-1} + \epsilon_{2t}$  (1b)  
LNPT<sub>t</sub> =  $\alpha_{20} + \sum_{j=1}^{k} \beta_{2j} \text{ LNPT}_{t-1} + \sum_{j=1}^{k} \gamma_{2j} \text{ LNPK}_{t-1} + \sum_{j=1}^{k} \delta_{2j} \text{ LNPB}_{t-1} + \epsilon_{2t}$  (1c)

where:  $\varepsilon$  white noise,  $\varepsilon \sim IIDN(0, \sigma^2)$ 

Two crucial tests need to be carried out in estimating and analyzing the model, namely the unit root test and the cointegration test. Unit root test is intended to ensure that data of rice price variable in the three market areas is stationary or integrated in a certain order. Testing uses the ADF (Augmented Dickey - Fuller) procedure based on the random walk model (RWM), as follows:

$$\begin{split} \Delta Y_t &= \delta Y_{t\text{-}1} + \sum_{i=1}^m \alpha_i \; \Delta Y_{t-i} + \epsilon_t \\ \text{where:} \quad \delta \quad \text{autoregressive coefficient} \\ \quad m \quad \text{optimum lag length} \end{split} \tag{2}$$

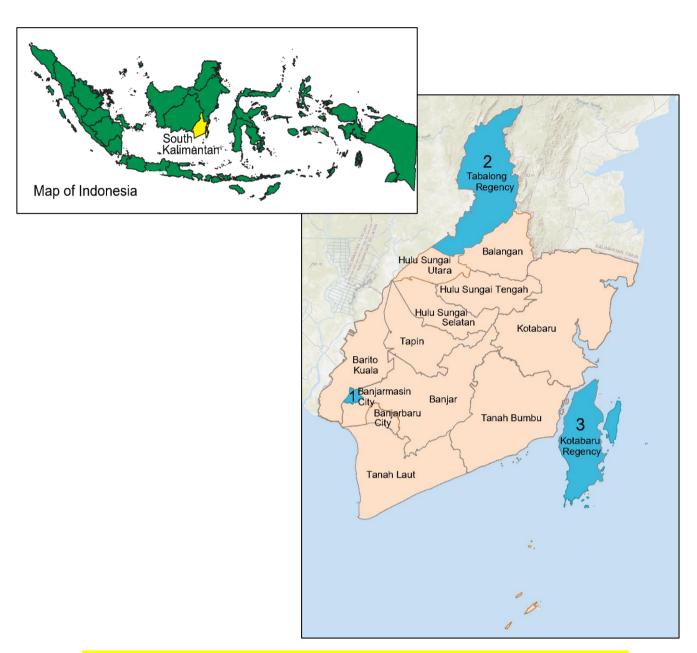


Figure 1. Map of South Kalimantan Province, Indonesia. The observation area: (1) Banjarmasin City; (2) Tabalong Regency; (3) Kotabaru Regency

for each series of rice price variables in Banjarmasin City (LNPB), Tabalong (LNPT), and Kotabaru (LNPK). The hypothesis that is being tested is  $H_0$ :  $\delta=0$  (there is a unit root problem) which means the data on the variable is not stationary) versus  $H_1$ :  $\delta < 0$ . Reject  $H_0$  if the tau statistics ( $\tau$ ) is greater than the MacKinnon critical value. To make it stationary, an upper differencing transformation is carried out until stationarity is obtained based on the ADF test. Regarding the optimum lag length in the VAR (1) and RWM (2) models, it is determined based on several choices of information criteria procedures: Akaike, Schwarz, or Hannan-Quinn which are available in the EViews software.

The cointegration test is aimed at revealing whether there

is a long-term balance between variables or not. Hence, the Johansen test is carried out, using two test statistics, namely trace and maximum eigenvalue, which are respectively written as,

$$\lambda_{\text{trace}}(r) = -T \sum_{i=r+1}^{n} \ln \left(1 - \hat{\lambda}_{i}\right) \tag{3}$$

$$\lambda_{\text{max}}(\mathbf{r}, \mathbf{r}+1) = -T \ln \left(1 - \widehat{\lambda}_{\mathbf{r}+1}\right) \tag{4}$$

[16]

where:  $\lambda$  estimated value of the eigenvalue obtained from matrix  $\Pi$ ;

T the number of observations that can be used

Matrix  $\Pi$  is in the equation:

$$\Delta \underline{\mathbf{x}}_{t} = \mathbf{A}_{0} + \mathbf{\Pi} \underline{\mathbf{x}}_{t-i} + \sum_{i=1}^{k-1} \mathbf{\Gamma}_{i} \Delta \underline{\mathbf{x}}_{t-i} + \underline{\mathbf{e}}_{t}$$
where: 
$$\mathbf{\Pi} = \sum_{i=1}^{p} \mathbf{A}_{i} - \mathbf{I}, \text{ and } \mathbf{\Gamma}_{i} = -\sum_{i=i+1}^{p} \mathbf{A}_{i}$$
(5)

[17,18] which is a reparameter of the VAR model.

With variables that are not stationary and with cointegration, the VAR model (1) is restricted by carrying out a differencing transformation on these variables so that they become stationary, and inserting error correction variables into the model to produce the following Vector Error Correction Model (VECM),

$$\begin{split} \Delta L \text{NPB}_t &= \alpha_{10} + \sum_{j=1}^k \beta_{1j} \, \Delta L \text{NPB}_{t-1} + \sum_{j=1}^k \gamma_{1j} \, \Delta L \text{NPT}_{t-1} \, + \\ &\quad \sum_{j=1}^k \delta_{1j} \, \Delta L \text{NPK}_{t-1} + \lambda_l u_{lt} + \epsilon_{1t} \quad (6a) \\ \Delta L \text{NPT}_t &= \alpha_{20} + \sum_{j=1}^k \beta_{2j} \, \Delta L \text{NPT}_{t-1} \, + \sum_{j=1}^k \gamma_{2j} \, \Delta L \text{NPK}_{t-1} \\ &\quad + \sum_{j=1}^k \delta_{2j} \, \Delta L \text{NPB}_{t-1} + \lambda_2 u_{3t} + \epsilon_{2t} \quad (6b) \\ \Delta L \text{NPT}_t &= \alpha_{20} + \sum_{j=1}^k \beta_{2j} \, \Delta L \text{NPT}_{t-1} \, + \sum_{j=1}^k \gamma_{2j} \, \Delta L \text{NPK}_{t-1} \\ &\quad + \sum_{j=1}^k \delta_{2j} \, \Delta L \text{NPB}_{t-1} + \lambda_3 u_{3t} + \epsilon_{3t} \quad (6c) \\ \text{where: } \Delta \quad \text{differencing operator} \end{split}$$

error correction term (ECT)

Inference on the VECM estimation results can be done by referring to the t statistic and R<sup>2</sup><sub>adjusted</sub> as a measure of GoF (goodness of fit). However, according to Gujarati & Porter (2009), one of the disadvantages of VECM estimation is that it is difficult to interpret it in a practical context, among other things because the variables used are the results of difference transformations. Therefore, the Impulse Response Function (IRF) instrument was proposed as an alternative.

#### 3. Result and Discussion

#### 3.1. Unit Root Test

Unit roots test is aimed to test the stationary of the data, considering that generally data on economic variables is not stationary [19] and it seems that non-stationary is a natural feature in the economy [20]; while statistical applications of time series data require stationary data. Non-stationary data when regressed will produce spurious regression which can be misleading because it has a high R<sup>2</sup> and significant t statistics, but does not provide a meaningful economic interpretation [16]. To change non-stationary data into stationary, a difference transformation will be carried out. Generally, the economic variables will be stationary after the difference transformation. Non-stationary graphically shows trends and drifts. Stationary data has properties of mean value, variance, and autocovariance at various lags that remain constant at the time when the calculation begins.

The test results are provided in Table 1. The three variables are not stationary in level but become stationary after being differencing transformed in the first level or it stated as I(1) — indicated by the value of Prob. = 0.0000 (= has a very small value, not zero) and corresponds to a tstatistic (in absolute value) which is greater than the MacKinnon critical value at the real level of up to 1%.

**Table 1.** The results of the ADF unit root test on variable data of LNPB, LNPK, and LNPT

data of Er (1 B, Er (1 II, and Er (1 I						
Series	Lag <sup>+</sup>	Max	Obs.	Statistik Uji ADF++		
Series		Lag	OUS.	t-statistics	Prob.	
Variable in level						
LNPB	5	13	146	-1.166711	0.6879	
LNPT	0	13	151	-0.796592	0.8169	
LNPK	0	13	151	-0.518478	0.8832	
Variable in first difference						
D(LNPB)	4	13	146	-6.903461	0.0000***	
D(LNPT)	0	13	150	-14.25502	0.0000***	
D(LNPK)	0	13	150	-14.27073 0.0000**		

+lag length: determined automatically based on SIC, maxlag=13

++MacKinnon (1996) one-sided p-values.

Test critical values: 1% level -3.473967

5% level -2.880591 10% level -2.577008

#### 3.2. Optimum Lag Length

The lag variables in RWM and VAR/VECM are meant to capture the past effects of the variables on the response variables. The influence of these variables is responded to late due to the influence of rigidity and inertia, the influence technology, and institutional influence Cointegration testing is sensitive to the lag length used. Enders[16] believes that determining lag length is very important: too short will result in misspecification, but too long will waste degrees of freedom.

Determining the optimum lag length uses several criteria options available in EViews. The optimum lag length is determined by taking into account the widest available lag length [13] as well as the dominant one expressed by several information criteria. Table 2 shows the optimum lag length is 6, which means that lag is shown to be the longest and dominantly stated by several criteria: LR, FPE, AIC.

**Table 2.** Determination of the optimal lag length

					U	
Lag	LogL	LR	FPE	AIC	SC	HQ
0	505.696	NA	1.86E-07	-6.982	-6.920	-6.957
1	1163.404	1278.875	2.28E-11	-15.992	-15.744*	-15.8912*
2	1173.386	18.994	2.25E-11	-16.005	-15.572	-15.8294
3	1175.930	4.7353	2.46E-11	-15.916	-15.297	-15.66423
4	1183.286	13.382	2.52E-11	-15.893	-15.088	-15.5660
5	1197.072	24.510	2.36E-11	-15.959	-14.969	-15.5571
6	1210.666	23.599*	2.22e-11*	-16.023*	-14.848	-15.5453
7	1219.586	15.116	2.23E-11	-16.022	-14.669	-15.4689
8	1222.397	4.645	2.43E-11	-15.936	-14.389	-15.3075

Notes: \* indicates lag order selected by the criterion

LR: sequential modified LR test statistic (each test at 5% level)

FPE: Final prediction error

AIC: Akaike information criterion SC: Schwarz information criterion

HQ: Hannan-Quinn information criterion

#### 3.3. The Cointegration Test

Cointegration is defined as a statistical statement related to the long-term equilibrium interrelationship among variables. Cointegration is believed that in the long run, pairs of economic variables will not deviate too far from each other. Temporary deviations may occur or possibly follow short-term seasonal factors. However, if these deviations tend to widen in the long run, there will be forces such as market mechanisms or government interventions that will guide these variables back towards their equilibrium positions [22]. According to Gujarati & Porter (2009), when there is a long-term interrelationship or equilibrium between two variables, it is said that they are cointegrated with each other.

The Johansen cointegration test on the variables LNPB, LNPT, and LNPK in the VAR is based on the choice of the intercept model (no trend) in CE, no intercept in VAR, and the optimal lag parameter set to 6. The choice of the intercept model (no trend) in CE and no intercept in VAR is determined by referring to the summarizing results of the pre-test assumptions of cointegration in EViews using the Schwarz Criteria. The test results, considering both the trace statistic test and the maximum eigenvalue test, conclude that the VAR model has one cointegration (Table 3).

Table 3. Johansen Cointegration Test Results

Unrestricted Cointegration Rank Test (Trace)

emestreted contegration rank rest (race)							
Hypothesized No.of CE(s)	Eigenvalue	Trace Statistic	Critical Value <sup>+</sup>	Prob.++			
None	0.166252	36.31511	24.27596	0.001***			
At most 1	0.057801	9.95054	12.3209	0.1209			
At most 2	0.009045	1.317441	4.129906	0.2934			

Trace test indicates 1 cointegrating eqn(s) at the 0.01 level

- + critical value at the 0.05 level
- ++ MacKinnon-Haug-Michelis (1999) p-values
- \*\*\*denotes rejection of the hypothesis at the 0.01 level

Unrestricted Cointegration Rank Test (Maximum Eigenvalue)

Hypothesized No.of CE(s)	Eigenvalue	Max-Eigen Statistic	Critical Value <sup>+</sup>	Prob.++
None	0.166252	26.36458	17.7973	0.002***
At most 1	0.057801	8.633098	11.2248	0.1379
At most 2	0.009045	1.317441	4.129906	0.2934

Max-eigenvalue test indicates 1 cointegrating eqn(s) at the 0.01 level

- + critical value at the 0.05 level
- ++ MacKinnon-Haug-Michelis (1999) p-values
- \*\*\*denotes rejection of the hypothesis at the 0.01 level

The cointegration is expressed in the following equation,  $LNPK_{t\text{-}1} = 1.5942 + 1.0411 \ LNPB_{t\text{-}1} + 0.1118 \ LNPT_{t\text{-}1} \qquad (6)$ 

0.11983[8.6885]\*\*\* 0.06297[1.7756]\*

- \*\*\* significant at the real level of testing at 0.01 level
- \* significant at the real level of testing at 0.1 level

In the long-term equilibrium interrelationship that is formed, it is shown that the rice prices in Banjarmasin and Tabalong markets have a significantly positive effect on the rice prices in the Kotabaru market. The price signals formed in the Banjarmasin and Tabalong markets will be transmitted

positively to the Kotabaru market. In particular, the rice prices variable in the Banjarmasin market influencing the rice prices in the Kotabaru market is strengthened by the pairwise Granger causality test results. The null hypothesis H0: LNPD does not Granger Cause LNPK is rejected, and thus, it means that LNPB has a Granger causality effect on LNPK because it has Prob. = 0.0027, which can be shown to be smaller than the significant at 0.01 level or even smaller than 0.01 (Table 4).

**Table 4.** Pairwise Granger Causality Test Results

Null Hypothesis:	Obs	F-Statistic	Prob.
LNPK does not Granger Cause LNPB	146	1.58182	0.1572
LNPB does not Granger Cause LNPK	146	3.56021	0.0027***
LNPT does not Granger Cause LNPB	146	0.92621	0.4784
LNPB does not Granger Cause LNPT	146	0.87568	0.5147
LNPT does not Granger Cause LNPK	146	0.28999	0.9408
LNPK does not Granger Cause LNPT	146	0.79628	0.5744

<sup>\*\*\*</sup>significant at the real level of testing at 0.01 level

#### 3.4. Impulse Response Function (IRF)

IRFs are based on a VECM (or a restricted VAR model) due to the non-stationarity of variables and existing cointegration. Using IRF, the dynamic responses of endogenous variables in each equation within the VAR system are traced for the effects of shocks on errors that occur as a result of changes in one of the examined exogenous variables (Figure 2). In this mechanism, the simulated shock that occurs is equal to one standard error.

In general, the shock effect of the variable itself is quite strong, as indicated by the relatively high spike in rice prices in each region, but the responses differ. In the Kotabaru market, after the spike, prices tend to decrease in the following weeks. In the Banjarmasin City market, after the initial spike, it is followed by subsequent spikes until the 5th week before declining in the following weeks. As an urban market with a diverse and large population, price shocks are responded to with a rush by buyers, resulting in price increases, but they are subsequently responded to by supplies from rice-producing buffer regions, causing rice prices to gradually decrease in the following weeks. Meanwhile, in the Tabalong market, the shock effect of the variable itself responded with small and stable fluctuations in the weeks ahead, but they settled at a higher price equilibrium.

The shock effects from price variables in other market regions are predominantly influenced by the rice prices in Banjarmasin City on the rice prices in the Kotabaru region. The shock is positively responded to with an increase in rice prices in the Kotabaru market. This finding is consistent with the statement in the cointegration equation (6), which specifies the influence of rice prices in Banjarmasin City as significant and elastic on the prices in the Kotabaru market.

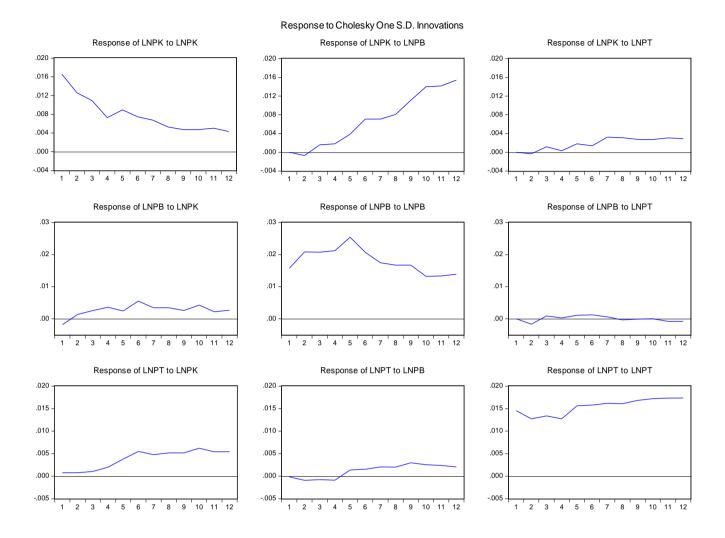


Figure 2. IRF Results: the response of endogenous variables to the effects of shocks occurring in exogenous variables

#### 4. Conclusion

Market integration is important because it provides insights into the performance of price signal transmission between interconnected markets, which will work well when information moves symmetrically. Integration promotes the formation of market efficiency and serves as a precondition to ensure the proper implementation of market intervention policies. One of the instruments used to construct the presence of market integration is by applying a VAR model to composite rice price variables in the markets of Banjarmasin City, Tabalong, and Kotabaru in South Kalimantan Province, Indonesia. Preliminary tests show that the price variables are not stationary in levels but have one cointegration representing long-term equilibrium interconnection among price variables in each market. Therefore, the pattern of the VAR model used is a restricted VAR model, namely, VECM. In the cointegration equation generated from VECM, it is evident that the influence of the rice prices in Kota Banjarmasin on the rice prices in Kotabaru is dominant, unidirectional, and positive, considering its

significant level, elasticity magnitude, and consistency with the results of the pairwise Granger causality test and the graphical description of the IRF in the Response of LNPK to LNPB segment. The argument for the high dependence of rice prices in the Kotabaru market on the rice prices in the Banjarmasin City market refers, among other things, to the fact that, firstly, the Banjarmasin City market serves as the central market in South Kalimantan Province and can act as a reference market; and secondly, the supply of rice commodities in the Kotabaru market generally originates from the Banjarmasin City market or the surrounding regions that have traditionally been the main sources of rice supply to Banjarmasin City.

#### **REFERENCES**

- Harriss, B. There is method in my madness: or is it vice versa? Measuring agricultural market performance. Food Research Institute Studies. Vol.XVII, No.2, 197–218, 1979. <a href="https://ageconsearch.umn.edu/record/135576">https://ageconsearch.umn.edu/record/135576</a>
- [2] Cochrane, W.W. The Market as a unit of inquiry in agricultural economics research. Journal of Farm Economics, Vol. 39, No.1, 21-39, 1957. <a href="https://www.jstor.org/stable/1233882">https://www.jstor.org/stable/1233882</a>
- [3] Baulch, B. Testing for food market integration revisited. Journal of Development Studies, Vol.33, No.4, 512-534, 1997. https://doi.org/10.1080/00220389708422479
- [4] Ravallion, M. Testing market integration. American Journal of Agricultural Economics, Vol.65, No.1, 102–109, 1986. https://doi.org/10.2307/1241654
- [5] Yang, J., Bessler, D. A., & Leatham, D. J. The Law of One Price: developed and developing country market integration. Journal of Agricultural and Applied Economics, Vol.32, No.3, 2000, 429-440. <a href="https://doi.org/10.1017/s107407080002054x">https://doi.org/10.1017/s107407080002054x</a>
- [6] Barrett, C. B. Measuring integration and efficiency in international agricultural markets. Review of Agricultural Economics, Vol.23, No. 1, 19-32, 2001 <a href="https://doi.org/10.1111/1058-7195.00043">https://doi.org/10.1111/1058-7195.00043</a>
- [7] Fackler, P. L., & Goodwin, B. K. Chapter 17 Spatial price analysis. In Handbook of Agricultural Economics Vol. 1, Issue PART B, edited by B. Gardner, G. Rausser, Elsevier Science B.V., 2001 https://doi.org/10.1016/S1574-0072(01)10025-3
- [8] Dawson, P. J., Dey, P. K. Testing for the law of one price: Rice market integration in Bangladesh. Journal of International Development, Vol.14, No.4, 2002. https://doi.org/10.1002/jid.888
- [9] Meyer, J., von Cramon-Taubadel, S. Asymmetric price transmission: A survey. Journal of Agricultural Economics, Vol.55, No. 3, 2004 <a href="https://doi.org/10.1111/j.1477-9552.2004.tb00116.x">https://doi.org/10.1111/j.1477-9552.2004.tb00116.x</a>
- [10] Goodwin, B. K., & Schroeder, T. C. Cointegration tests and spatial price linkages in regional cattle markets. American Journal of Agricultural Economics, Vol.73, No.2, 1991. <a href="https://doi.org/10.2307/1242730">https://doi.org/10.2307/1242730</a>
- [11] Conforti, P. Price transmission in selected agricultural markets. In FAO Commodity and Trade Policy Research Working Paper, Issue 7, 2004

#### https://www.fao.org/3/j2730e/j2730e.pdf

- [12] Pan, F., Li, C. Evolution of agricultural spatial market integration: evidence from the hog market in China. Journal of Agricultural and Applied Economics, Vol.51, No.3, 349-367, 2019. <a href="https://doi.org/10.1017/aae.2019.7">https://doi.org/10.1017/aae.2019.7</a>
- [13] Makbul, Y., Ratnaningtyas, S. Analysis of the integration of rice and paddy prices in Indonesia using a vector error correction model. International Journal of Applied Business and Economic Research, Vol.15, No.10, 209-225, 2017 <a href="https://www.researchgate.net/publication/317971112">https://www.researchgate.net/publication/317971112</a>
- [14] Makbul, Y., Limakrisna, N., Ratnaningtyas, S., Rochana, S. H. (2020). Rice Price Market integration and Supply Chain Management (SCM) in Indonesia. International Journal of Supply Chain Management, Vol.9 No.6, 218-223, 2020 <a href="https://www.researchgate.net/publication/358087507\_Rice\_Price\_Market\_Integration\_and\_Supply\_Chain\_Management\_SCM\_in\_Indonesia">https://www.researchgate.net/publication/358087507\_Rice\_Price\_Market\_Integration\_and\_Supply\_Chain\_Management\_SCM\_in\_Indonesia</a>
- [15] Alexander, C., Wyeth, J. Cointegration and market integration: an application to the Indonesian rice market. The Journal of Development Studies, Vol.30, No.2, 303-328, 1997. https://doi.org/10.1080/00220389408422317
- [16] Enders, W. Applied Econometric Time Series, 4<sup>th</sup> ed., John Wiley and Sons Inc., NJ, 2015
- [17] Hjalmarsson, E., Österholm, P. Testing for cointegration using the Johansen methodology when variables are nearintegrated. IMF Working Paper, WP/07/141, Vol.2007, No.141, 1-21, 2007 <a href="https://doi.org/10.5089/9781451867053.001">https://doi.org/10.5089/9781451867053.001</a>
- [18] Dwyer, G. P. (2015). The Johansen tests for cointegration. White Paper. <a href="http://jerrydwyer.com/pdf/Clemson/Cointegration.pdf">http://jerrydwyer.com/pdf/Clemson/Cointegration.pdf</a>
- [19] Gujarati, D. N., Porter, D. C. Basic Econometrics (5th ed.). McGraw-Hill/Irwin, NY, 2009
- [20] Hendry, D. F., Juselius, K. Explaining cointegration analysis: Part 1. Energy Journal, Vol.21, No.1, 1-42, 2000. https://doi.org/10.5547/ISSN0195-6574-EJ-Vol21-No1-1 https://www.jstor.org/stable/41322853
- [21] Nerlove, M. Distributed lags and demand analysis for agricultural and other commodities. Agriculture Handbook No. 141, 1958. <a href="https://doi.org/10.22004/ag.econ.316559">https://doi.org/10.22004/ag.econ.316559</a>
- [22] Granger, C. W. J. Developments in the study of cointegrated economic variables. Oxford Bulletin of Economics and Statistics, Vol. 48, No.3, 1986. https://doi.org/10.1111/j.1468-0084.1986.mp48003002.x



Sadik Ikhsan <sikhsan@ulm.ac.id>

# Revision after Peer Review (ID:10435960)-2 reports-Analyzing the Spatial Integration of Rice Market in South Kalimantan Province, Indonesia: using Vector Error Correction Model (VECM)

7 messages

**Anthony Robinson** <revision.hrpub@gmail.com> To: Sadik lkhsan <sikhsan@ulm.ac.id>

Tue, Feb 6, 2024 at 10:12 PM

Dear Sadik Ikhsan,

Thank you for your interest in publishing your work in HRPUB.

Your manuscript has now been peer reviewed and the comments are accessible in Word format.

Usually, we invite 2 peer reviewers for one manuscript. Compared with both review reports, the overlapped parts can be ignored. Please confirm all comments from the two reviewers have been effected in your paper.

We would be grateful if you could address the comments of the reviewers in a revised manuscript and answer all questions raised by reviewers in a cover letter. Any revision should be made on the attached manuscript.

#### Note:

- 1. In addition to necessary revisions, please note that the similarity index of the revised version should be lower than 18% and similarity from a single source should not exceed 5%.
- 2. Based on the theme of your manuscript, we would like to recommend the following published articles for your reference. If it is useful in enriching your manuscript, you can cite them in your manuscript. If not, just ignore it.

  Forecasting the Selling Price of the Agricultural Products in Ukraine Using Deep Learning Algorithms https://doi.org/10.13189/ujar.2021.090304

Chickpea Breeding and Crop Improvement in Ethiopia: Past, Present and the Future https://doi.org/10.13189/ujar.2020.080202

Please download the publication agreement (https://www.hrpub.org/download/HRPUB\_Publication\_Agreement.pdf) and fill in the authors' names, manuscript title, manuscript ID and signature, then send a scanned version to us.

Please submit the revised paper to us by email in MS Word or LaTex format within two weeks and do not submit it into the Online Manuscript Tracking System.

The author will be requested to pay the Article Processing Charges after the manuscript is accepted for publication. For the charging standard, please refer to <a href="http://www.hrpub.org/journals/jo

Look forward to receiving your revised manuscript as soon as possible.

Please acknowledge receipt of this email.

**Best Regards** 

Anthony Robinson Editorial Assistant

revision.hrpub@gmail.com

Horizon Research Publishing, USA

http://www.hrpub.org

#### 3 attachments



Peer\_Review\_Report-10435960\_1.docx



Peer\_Review\_Report-10435960\_2.docx



UJAR-10435960.docx

814K

Sadik Ikhsan <sikhsan@ulm.ac.id>

Mon, Feb 12, 2024 at 6:18 AM

To: Anthony Robinson <revision.hrpub@gmail.com>

Dear Mr. Antony Robinson,

I have received the email. I will learn more about the suggestion from you and both peer reviewers and revise the manuscript as soon as possible. Thank you.

Best regards, Sadik Ikhsan

#### Anthony Robinson <revision.hrpub@gmail.com>

Mon, Feb 12, 2024 at 6:18 AM

To: sikhsan@ulm.ac.id

We have received your email. Will get back to you as soon as possible.

Best Regards

Anthony Robinson Editorial Assistant revision.hrpub@gmail.com Horizon Research Publishing, USA http://www.hrpub.org

#### Anthony Robinson <revision.hrpub@gmail.com>

Sat, Feb 17, 2024 at 5:33 PM

To: Sadik Ikhsan <sikhsan@ulm.ac.id>

Dear Sadik Ikhsan,

Thank you for your reply.

Please send the revised paper and cover letter to us via email after you finish it.

**Best Regards** 

Anthony Robinson Editorial Assistant revision.hrpub@gmail.com Horizon Research Publishing, USA http://www.hrpub.org

[Quoted text hidden]

Sadik Ikhsan <sikhsan@ulm.ac.id>

Sun, Mar 3, 2024 at 9:48 AM

To: Anthony Robinson <revision.hrpub@gmail.com>

Dear Mr. Anthony Robinson,

Hereby the revisions to the manuscript I made. Please check the attachment (2024 Ikhsan - rev.5 Analyzing the Spatial Integration of Rice Market.docx) Related to the results of the previous review, here are some of my notes:

- (1) To respond to Peer\_Review\_1, I revised the manuscript on page 2 in the part that I highlighted in blue font. It is only a general explanation for the differences that occur among markets. I cannot explore in-depth explanations considering that the data available is only rice prices prevailing in three markets (Banjarmasin, Kotabaru, and Tabalong) and in time series. In addition, the focus of this study is about integration markets which examine the interconnection among markets rather than factors affecting prices in the markets;
- (2) In response to Peer\_Review\_2, I revised the Conclusion section by simplifying it so as not to repeat some of the previously mentioned parts, adding implications for the research results, and offering several possible further studies that could be carried out in the future (highlighted in blue font);
- (3) Related to two published articles you recommended titled

Forecasting the Selling Price of the Agricultural Products in Ukraine Using Deep Learning Algorithms https://doi.org/10.13189/ujar.2021.090304

Chickpea Breeding and Crop Improvement in Ethiopia: Past, Present and the Future https://doi.org/10.13189/ujar. 2020.080202

I apologize that I didn't cite them. After considering, there were no relevance to the focus of my research I write in the manuscript

(4) Finally, I examined the originality of my revised manuscript by using Turnitin software. The results as follows: similarity index = 17 % and maximum similarity from a single source < 2. Please check another attachment (2024 Ikhsan - rev.5 Turnitin, Analyzing the Spatial Integration of Rice Market.pdf)

Thank you.

Best regard,

Sadik Ikhsan

[Quoted text hidden]

#### 3 attachments



2024 Ikhsan - rev.5 Analyzing the Spatial Integration of Rice Market.docx



2024 Ikhsan - rev.5 Turnitin, Analyzing the Spatial Integration of Rice Market.pdf



2024 Ikhsan - HRPUB\_Publication\_Agreement.pdf 246K

#### Anthony Robinson <revision.hrpub@gmail.com>

Mon, Mar 4, 2024 at 2:26 PM

To: Sadik Ikhsan <sikhsan@ulm.ac.id>

Dear Sadik Ikhsan,

Thank you for your kind email.

We have received your revised paper, the signed publication agreement and Turnitin report. If further revision is not required, you will expect an Acceptance Letter from us in two weeks.

Best Regards

Anthony Robinson Editorial Assistant revision.hrpub@gmail.com Horizon Research Publishing, USA http://www.hrpub.org

[Quoted text hidden]

Sadik Ikhsan <sikhsan@ulm.ac.id>

To: Anthony Robinson <revision.hrpub@gmail.com>

Mon, Mar 4, 2024 at 9:14 PM

That's great, thank you very much.



Sadik Ikhsan <sikhsan@ulm.ac.id>

# Acceptance Letter & Advice of Payment (ID:10435960)-Analyzing the Spatial Integration of Rice Market in South Kalimantan Province, Indonesia: using Vector Error Correction Model (VECM)

3 messages

Anthony Robinson <revision.hrpub@gmail.com>

Mon, Mar 11, 2024 at 5:15 PM

To: Sadik Ikhsan <sikhsan@ulm.ac.id>

Dear Sadik Ikhsan,

Your paper has been accepted for publication. Herewith attached is the Acceptance Letter.

The publication fee is \$480. Below are Wire Transfer instructions.

Beneficiary name: HORIZON RESEARCH PUBLISHING CO., LTD

Beneficiary account number: 33113742

Bank Routing number/ ABA number for domestic wires: 122203950

Banking Swift code for international wires: CATHUS6L

Beneficiary bank name: Cathay Bank

Beneficiary bank address: 4128 Temple City Blvd, Rosemead, CA 91770 United States

Note: Please add \$35.00 for wire transfer fee.

The bank charge would be deducted prior to the receipt of the payment. To avoid a shortfall on the net amount received and request for repayment, authors shall pay the commission charge while making the payment.

Once the payment is finished, please inform us or send the remittance bill to us.

#### **Best Regards**

Anthony Robinson
Editorial Assistant
revision.hrpub@gmail.com
Horizon Research Publishing, USA
http://www.hrpub.org



Acceptance Letter\_10435960.jpg 175K

Sadik Ikhsan <sikhsan@ulm.ac.id>

Tue, Mar 12, 2024 at 10:30 PM

To: Anthony Robinson <revision.hrpub@gmail.com>

Dear Anthony Robinson,

I am very glad to receive your email telling me that my paper has been accepted for publication in the Universal Journal of Agricultural Research. About the publication fee I will pay as soon as possible. I will inform you further when payment has been completed. Thank you.

Best regards, Sadik Ikhsan

[Quoted text hidden]

Anthony Robinson <revision.hrpub@gmail.com>

Wed, Mar 13, 2024 at 2:54 PM

To: Sadik Ikhsan <sikhsan@ulm.ac.id>

Dear Sadik Ikhsan,

Thank you for your response.

Best Regards

Anthony Robinson Editorial Assistant revision.hrpub@gmail.com Horizon Research Publishing, USA http://www.hrpub.org

Universal Journal of Agricultural Research

ISSN: <u>2332-2268 (Print)</u> ISSN: <u>2332-2284 (Online)</u>

### **Acceptance Letter**

Dear Sadik Ikhsan,

Congratulations! As a result of the reviews and revisions, we are pleased to inform you that your following paper has been accepted for publication.

Paper Title: Analyzing the Spatial Integration of Rice Market in South Kalimantan Province, Indonesia: using

Vector Error Correction Model (VECM)

Paper ID: <u>10435960</u>

Contributor (s): Sadik Ikhsan, Djoko Santoso, Yuriadi Ilmi, Dea Etna Ananda

It is scheduled for publication on <u>Universal Journal of Agricultural Research</u>, Vol. 12, No. 2.

The publication fee \$ 480 should be paid within 2 weeks.

Should you have any questions, please feel free to let us know by quoting your Paper ID in any future inquiries.

Best wishes,

Journal Manager

editorialboard@hrpub.org

Horizon Research Publishing,

Date: 03/11/2024

http://www.lirpub.org



Sadik Ikhsan <sikhsan@ulm.ac.id>

# Urgent!!!-Proof Reading before Publication (ID:10435960)-Analyzing the Spatial Integration of Rice Market in South Kalimantan Province, Indonesia: using Vector Error Correction Model (VECM)

4 messages

**Anthony Robinson** <revision.hrpub@gmail.com> To: Sadik lkhsan <sikhsan@ulm.ac.id> Wed, Mar 27, 2024 at 8:13 PM

Dear Sadik Ikhsan.

Your manuscript has been accepted for publication. Authors are given a chance of checking the attached manuscript before publication.

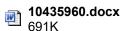
Please carefully check the whole manuscript to ensure consistency and accuracy in grammar, spelling, punctuation and formatting, especially those highlighted parts proofread by our team, and send back the final revised paper **Within two days**.

All revisions should be made and highlighted on the attached manuscript.

Kindly note that the paper title, author names and affiliations shall not be modified once the paper is published.

#### **Best Regards**

Anthony Robinson
Editorial Assistant
revision.hrpub@gmail.com
Horizon Research Publishing, USA
http://www.hrpub.org



Sadik Ikhsan <sikhsan@ulm.ac.id>

Sat, Mar 30, 2024 at 11:14 PM

To: Anthony Robinson <revision.hrpub@gmail.com>

Dear Anthony Robinson,

Yes Mr. Anthony Robinson the manuscript is OK to publish, except the affiliations of number 1. It is not Magister of Agricultural Economics Study Program, but Master of Agricultural Economics Study Program. That all. Thank you

Best Regards, Sadik Ikhsan



# **10435960**, correction.docx 692K

**Anthony Robinson** <revision.hrpub@gmail.com> To: Sadik lkhsan <sikhsan@ulm.ac.id>

Mon, Apr 1, 2024 at 9:08 AM

Dear Sadik Ikhsan,

Thank you for your reply.

Your paper has been published. We will correct the affiliation as soon as possible.

**Best Regards** 

Anthony Robinson Editorial Assistant revision.hrpub@gmail.com Horizon Research Publishing, USA http://www.hrpub.org

[Quoted text hidden]

Sadik Ikhsan <sikhsan@ulm.ac.id>

To: Anthony Robinson <revision.hrpub@gmail.com>

Mon, Apr 1, 2024 at 8:48 PM

Thank you very much, Mr. Anthony Robinson