ASSESSING THE PERFORMANCE AND FACTORS AFFECTING ORGANIC RICE AGRIBUSINESS AGRIBISNIS

by D. Yadi Heryadi

Submission date: 12-Oct-2020 03:12PM (UTC+0700)
Submission ID: 1412683919
File name: E_AND_FACTORS_AFFECTING_ORGANIC_RICE_AGRIBUSINESS_AGRIBISNIS.pdf (326.83K)
Word count: 5672
Character count: 32501

ISSN: 2230-9926

Available online at http://www.journalijdr.com

IJDR

International Journal of Development Research
Vol. 08, Issue, 11, pp. 24110-24115, November, 2018

ORIGINAL RESEARCH ARTICLE OPEN ACCESS

ASSESSING THE PERFORMANCE AND FACTORS AFFECTING ORGANIC RICE AGRIBUSINESS SUSTAINABILITY

*[1] D. Yadi Heryadi, [2]Trisna Insan Noor, [2]Yosini Deliana and [3]Jajang Sauman Hamdani

[1]Faculty of Agriculture, Siliwangi University, Tasikmalaya, Indonesia,
[2]Faculty of Agriculture, Padjadjaran University, Bandung, Indonesia

ARTICLE INFO

Article History:
Received 06th August, 2018
Received in revised form
19th September, 2018
Accepted 06th October, 2018
Published online 28th November, 2018

Key Words:
Organic rice, Performance, Agribusiness system, Sustainability.

ABSTRACT

The sustainability of organic rice agribusiness is determined by the performance of the agribusiness system consisting of subsystems providing production inputs, on-farm subsystems, processing/ handling results subsystems, marketing subsystems and supporting element subsystems. In Indonesia, especially East Priangan is known as an area of organic rice development. Currently, the development performance shows a decrease in indicators including productivity, production, planting area and the number of farmers involved in organic rice cultivation. The purpose of this study is to describe the actual performance of development while analysing the factors that influence the sustainability of organic rice agribusiness. The survey method was used in this study of cluster random sampling technique on 280 organic rice farmers in 4 districts/cities of East Priangan, West Java Province, Indonesia and applying the Structural Equation Model (SEM) approach using the LISREL analysis tool. It can be concluded that the development of organic rice gribusiness in the study area obtained sufficient performance and the whole agribusiness subsystem which consists of production input sub-system, on-farm subsystem, handling/processing subsystem, marketing subsystem and supporting element subsystem affecting the sustainability of organic rice agribusiness.

Citation: D. Yadi Heryadi, Trisna Insan Noor, Yosini Deliana and Jajang Sauman Hamdani. 2018. "Assessing the performance and factors affecting organic rice agribusiness sustainability", *International Journal of Development Research*, 8, (11), 24110-24115.

INTRODUCTION

The growth of organic agriculture is growing rapidly in the world marked by an increase in the area of organic land from 15 million hectares in 2000 to 50.9 million hectares with over 2.4 million of producers (Willer and Lernoud, 2017), whereas the value of world trade in organic products reached 36.2 billion euros in 2007(IFOAM, 2009), and climb to more than 60 billion euros in 2014 (FiBL Survey, 2016). Organic agriculture growth is triggered by the changing preference and lifestyle of consumers who want their food to be healthy and safe also because organic agriculture offers more advantages compared to conventional agriculture, which can protect/ maintain the health, physical, fertility and biological properties of the soil. Furthermore, by applying organic agriculture the ecosystem could acclimatize to change the climate, and increase the potential for carbon sequestration from the soil (Karki, *et al*, 2011; Widiarta, *et al*, 2011; Surekha, *et al*, 2013; Pathak *et al*., 1992; Carpenter Boggs *et al*., 2000; Bhooshan *et al*., 2011). Besides, there was a rise in farmers' income through higher productivity and premium price of the yields rather than conventional rice (Surekha, *et al*, 2013; Reddy, 2010). While social contributions are a variety of hazard avoidance related to loss of fertile soil, water pollution, and erosion of biodiversity, greenhouse gas emissions, food insecurity and pesticide poisoning which can eventually promote a healthy society (Scialabba, 2013). Organic farming has been proposed as a crucial method to achieve these goals (Seufert, 2012). In Indonesia, although organic farming, including organic rice, was long known to have many advantages and benefits from multiple aspects the expansion is relatively slow (Mayrowani, 2011). Likewise, in East Priangan, West Java Province, the development of organic rice was categorized as stagnant and tend to decline (Heryadi and Noor, 2016). The conditions that occur in organic rice agribusiness in the East Priangan Region are the fluctuation problems and the indication declining in organic rice agribusiness including 1) Relatively small percentage of Organic rice field area compared to conventional

***Corresponding author:* D. Yadi Heryadi,**
Faculty of Agriculture, Siliwangi University, Tasikmalaya, Indonesia

rice field area in East Priangan (3.17 percent in 2015); 2) Fluctuations, slowdowns and decreases in productivity, especially from 2014 as much as 74.85 kW / ha to 74.66 kW / ha in 2015, even the average research results were only 50.70 kW / ha Dry Grain / DUP; 3) Decrease in Organic rice production, compared to conventional rice production, approximately 8.32 percent (31,812 tons) from conventional rice production of 382,143 tons; 4) The number of organic rice farmers decreased dramatically, in 2009 there were 2,435 farmers, and only 427 farmers by the end of 2015. The diverse phenomena and the underlying causes of developing a sustainable organic rice business in East Priangan derive from the dynamics and problems that are still about the agribusiness system. Although organic rice agribusiness is a system. Nowadays, organic rice development in the research area has been in line with the farmers' understanding and has not yet referred to an integrated development model. These problems determine the development, performancewill eventually have an impact on its sustainability. Sustainability is a long-term concept and includes various aspects of the social, economic and environmental. The main focus of this study aimed to measure the performance and sustainability aspects of the development of organic rice agricultural business in the East Priangan region and the factors that influence its sustainability. The subject of this research is part of the author's essay to develop a model of sustainable organic rice development in the East Priangan region. It is believed that the model made can increase the level of income of all stakeholders, especially organic rice farmers.

MATERIALS AND METHODS

This study is a quantitative study with survey methods, which conducted to obtain facts from existing symptoms and find factual information from a group or a region (Nazir, 2005). This research is also an explanatory research, causality explains a relationship between variables through hypothesis testing (Gozali, 2004). The location of the research was carried out in the East Priangan Development Area which included the City of Tasikmalaya, Tasikmalaya Regency, Ciamis Regency, Garut Regency, Banjar City and Pangandaran Regency with the Organic Rice Farmers research unit in the Region. Determination of the location of the research was carried out by purposive sampling based on the consideration that this region was an agrarian region that the development was based on the agricultural sector and was an area of rice production centers in the West Java Province. Both primary and secondary data were analysed. Primary data were obtained through field survey, questionnaires, and expert interviews (independent interviews) with the stakeholders involved in the development of organic rice in the East Priangan region. Secondary data are obtained through research results, literature studies, reports, and documents from various agencies related to the research field. Data collection methods used in this study are interviews, observations. The population size in this study was 427 organic rice farmers in the East Priangan region. Sampling with probabilistic techniques, cluster random sampling was applied so that all members of the population have the same opportunities to be chosen as samples. Part of this study applies the Structural Equation Model (SEM) approach so that for this purpose a minimum number of samples are needed at least five times the number of indicators used (Sekaran, 2003). The number of indicators used in this model is 28 units. After being tested for validity and reliability, the sample taken was 10 times the number of indicators, so that a total of 280 people were obtained. Then proceed with proportional sampling to find out the number of samples to be taken from each research area. The amount of the composition of the sample size of organic rice farmers taken can be seen in Table 1.

Tabel 1. Sample Size of Organic Rice Farmers

No	Area*)	Sample Size (people)	Organic Rice Farmers
1.	Kab. Tasikmalaya	320	210
2.	Kabupaten Ciamis	43	28
3.	Kabupaten Garut	34	22
4.	Kab.Pangandaran	30	20
	Total	427	280

*) 2 Areas doesn't have organic rice farmers

In this study, the variables that influence the sustainable organic rice agribusiness are based on the results of previous studies by considering the suitability of the situation and conditions in the study area. This also refers to the opinion of Bellows B (1994) stated that although many indicators have been developed, this does not cover all aspects of sustainability. In addition, because of variations in biophysical and socioeconomic conditions, indicators used in one country are not necessarily suitable for other countries. The contents of the indicator system differ from each other for different countries, regions, and stages of development, and of great subjectivity. Agribusiness system variables used in this study adopt and adapt various opinions including Ristianingrum (2016); Widiarta, et al, (2011); Wulandari and Wahyudi (2014); Herawati et al., (2014); Heryadi and Rofatin (2016); Rahayu, (2011); Stone & Lieblein, et al., (2008); Mayrowani, (2012); Septian, (2010); Hosseini and Shariati, (2003); Sidemen, et al, (2012) which are grouped into several sub-systems as follows: Sub production input system, the indicators consist of: organic fertilizer, rice seeds, organic pesticides, water sources. Production/farming sub-system, the indicators consist of land conversion, labor, organic rice technology. and Continuity of production. The sub-system of handling and processing, the indicators consist of Food additives, facilities, and processing infrastructure and fulfilment of general requirements for organic quality. The marketing sub-system, the indicators consist of: Ease of marketing, organic certification costs. Organic market information While the supporting system sub-system, the indicators consist of: government policy, capital assistance from financial institutions, counselling/training, organic farmer groups, and technology information sources.

The sustainability of organic rice agribusiness will be analysed in 3 dimensions as stated by Ristianingrum, (2016); Widiarta, et al., (2012); Zhen and Routray, (2003); Becker, (1997); Van Schooten et al, (2003); Hunkeler et al., (2008); Hosseini et al, (2010); Hayati et al (2010) which are the economic dimensions, social dimensions and environmental dimensions. Sustainability status of organic rice agribusiness from the Economic dimension, the indicators consist of Organic rice productivity, Organic Rice Prices, Revenue. Then from the Social dimension, the indicator consists of Pattern of communication between farmers, Farmer Empowerment, and Family Support. Whereas from the Environmental dimension the indicators consist of Organic rice land zoning, Water use efficiency, Farmers' awareness of the environment. In order to answer the problem about the actual performance of the development of organic rice agribusiness in the East Priangan

region, descriptive analysis was used by applying descriptive statistics. This presentation is in the form of size, tables, graphs, images and so on (Algifari, 2013). The size that will be used in this explanation is the average value obtained. While analysingthe factors that influence the sustainability of organic rice agribusiness development is carried out by analyzing the agribusiness system which consists of various organic rice agribusiness subsystems to sustainability by applying Structural Equation Models (SEM) with LISREL.

RESULT AND DISCUSSION

Research Area Characteristic: The East Priangan area was 9,051.37 km2 or around 24.35 percent of the total area of West Java Province, the height of the place between 0 - 2830 m above sea level and the air temperature ranges from 20oC to 30°C. This agro-climate is suitable for organic rice that grows optimally at altitudes between 0-1000 m above sea level and temperatures around 27°C (Agricultural Information Center, 2018).

quantity or quality of something produced or the services provided by someone who does the work (Luthans, 2005). The performance of organic rice agribusiness development in the East Priangan region is explained by descriptive analysis which is processed by grouping, tabulated using the average number and percentage then given a narrative explanation to provide an empirical description of the primary data that has been collected from respondents of organic rice farmers. Descriptive analysis is done to find out whether the independent variables are one variable or more (independent) without making comparisons or connecting with other variables. The performance status of organic rice agribusiness development is discussed using an agribusiness system approach consisting of production input subsystems, production / on-farm subsystems, handling and processing subsystems, marketing subsystems and supporting facility subsystems. Synthesis of the achievement of the performance of the Organic Rice agribusiness system in the East Priangan region by using a complete average index can be seen in Table 2.

Table 2. Synthesis of Achievement of Organic Rice Agribusiness System Performance in the East Priangan Region

Subsystem		Variable	Average Index of Area (IRW)				IRW Priatim	Performance
			Kab Tsm	Kab Cms	KabGrt	Kab Png		
1.Production Input	$X1._1$	Organic Fertilizer	1,76	1,30	1,93	1,79	1,70	Poor
	$X1._2$	Rice Seed	4,04	4,04	4,16	4,03	4,06	good
	$X1._3$	Organic Pesticide	3,49	3,26	3,70	3,46	3,47	good
	$X1._4$	Irrigation	3,50	3,23	3,62	3,48	3,46	good
Total performance score Sub-Input Production system			3,19	2,95	3,35	3.19	3,17	Fair
2.Production/On-farm	$X2._1$	Conversion Period	3,65	3,47	3,62	3,50	3,56	good
	$X2._2$	Labour	1,61	1,40	1,69	1,47	1,54	poor
	$X2._3$	Cultivation technology	3,98	3,82	4,23	3,90	3,98	good
	$X2._4$	Continuity of production	3,55	3,53	3,77	3,73	3,64	poor
Total performance scores of Production / On-farm sub systems			3,19	3,05	3.32	3,15	3,18	Fair
3.Handling and Processing	$X3._1$	Additional Materials	4,32	4,18	4,30	4,18	4,24	Excellent
	$X3._2$	Processing Facilities and Infrastructure	4,04	3,98	4,41	4,33	4,19	good
	$X3._3$	Fulfilment of General Quality requirements	4,11	4,13	4,23	4,15	4,15	good
Total performance score of the Handling and Processing Sub system			4,16	4,09	4.31	4.22	4,19	good
4. Marketing	$X4._1$	Ease of Marketing	3,30	2,66	3,17	2,71	2,96	Fair
	$X4._2$	Certification	3,06	2,82	3,18	2,91	2,99	Fair
	$X4._3$	Market Information	2.57	2.27	1.68	2.03	2,13	low
Total score of Sub Marketing system performance			2,97	2,58	2.67	2.55	2,69	fair
5.Supporting elements	$X5._1$	Government policy	3,71	3,56	2,53	3,32	3,28	fair
	$X5._2$	Capital	1,57	1,54	1,39	1,50	1,50	poor
	$X5._3$	Counselling and Training	4.11	4,02	4,04	4,00	4,04	good
	$X5._4$	Farmers	4,07	3,89	4,55	4,02	4,13	good
	$X5._5$	Resources	4,20	4,09	4,18	4,15	4,15	good
Total performance score of the Supporting Element Sub-system			3.53	3,42	3.34	3.40	3,42	Good
TOTAL PERFORMANCE SCORES ORGANIC RICE AGRIBUSINESS SYSTEM			3.40	3,21	3.39	3.30	3,33	Fair

Note :Kab. Tsm = Kab. Tasikmalaya' Kab.Cms : Kab. Ciamis; Kab. Grt : Kab. Garut; Kab.Png :Kab.Pangandaran; Priatim : PrianganTimur

The population is 5,805,658 people and around 12.25 percent of the total population in West Java Province as many as 47.38 million people with a population growth rate of 1.20 percent, a population density of 1,191 people / km2. The harvested area of rice in 2015 was 352,130 Ha, contributing 20.13 percent of the harvest area of West Java Province of 1,748,620 Ha. The productivity of 60.79 percent is lower than the productivity of lowland rice in West Java Province at 62.09 kW / Ha. While the production of lowland rice amounted to 2,234,342 tons and contributed 20.59 percent to the production of lowland rice in West Java Province as many as 10,856,438 tons.

Agribusiness System Performance: Performance is the result or output of a process (Nurlaila, 2010). According to the behavioral approach in management, performance is the

The average index in the form of a total score of the performance of the production input subsystem shows sufficient performance. This is the contribution of the implementation of organic rice cultivation, with the majority of respondents using local varieties of rice seeds and not using hybrid rice seeds or other genetically modified seeds, sufficient availability, easy to obtain and the price is the same or cheaper when compared to the price of hybrid rice seeds or engineered other genetics. Other contributions from the habits of farmers who only use biological/vegetable pesticides to eradicate pests and diseases of their organic rice plants, ease of implementation, low cost, ease of manufacturing process and biological / vegetable pesticide raw materials are easily obtained in the local environment. The last contribution came

from the water source used by organic rice which has been separated from conventional rice farming and the respondents' understanding of the purpose of separation to avoid contamination with chemicals. The biggest problem in this sub-system is the limited supply of organic fertilizers, the difficulty of transporting organic fertilizer to the location/rice fields which cause organic fertilizer to be not according to recommendations. Another obstacle is that farmers find it difficult to separate irrigation water between organic rice farming land and conventional rice fields. In the production / on-farm sub-system, the average index in the form of total scores shows sufficient performance. The problem in this sub-system is that many respondents work on their farming with only a small amount of energy in the family to save production costs, whereas for organic rice this requires more labour, especially to transport organic fertilizer and tillage. This is the same as that presented by Pimentel et al. (2005) that labour input, on average, is 15% higher in organic agriculture than in conventional agriculture. While Crowder and Reganold (2015) stated that organic farming has a higher labour cost, but their total costs are not much higher. With a family workforce that eventually ends up working less than perfect land which results in productivity that is not optimal. The amount of labour for organic rice cultivation is 40 percent more than conventional rice cultivation, so it becomes an additional burden for the cost of organic rice production. Another fact is the availability of labour is very limited. Limitations and scarcity of labour when needed results in a delay in the planting schedule so that it affects plant growth, productivity, and product quality. The additional fulfilment of this workforce is usually waiting for other workers from the surrounding rice fields or bringing in from outside the area.

In the handling and processing sub-systems, the average index in the form of total scores shows good performance. This is a contribution from the respondent's good understanding about not being able to provide supplementary food preservatives to maintain the quality of organic rice including the control and destruction of plant pests & diseases. Others are a good understanding of the need for respondents to meet the general quality requirements required in the organic rice trade. Most respondents already have tools to process organic rice into organic rice. The problem in this sub-system is that many respondents process grain into organic rice in the Rice Milling Unit (RMU) together with conventional rice grain, so the results still have the possibility to mix so that the quality of organic rice is not guaranteed. In the marketing sub-system, the average index in the form of total scores shows sufficient performance. The achievement of this performance is the contribution of farmers from the Association of Farmers' Groups (GAPOKTAN) and exporters who easily market their products and all organic rice products produced are sold. Other contributions come from farmers' understanding of the need for certification, farmers understand rice certification requirements. The problem with this sub-system is that there are respondents who have joined the Farmers Group Association but their products are not absorbed due to financial limitations. Most of the independent respondents said that it was difficult to market their products and there was no marketing agency specifically handling the marketing of organic rice. Many of them sell directly to end consumers in the form of bulk rice / not specifically packaged as organic rice. Another obstacle is that farmers claim that the cost of organic rice certification is too expensive, the certification surveillance period is too short for one year, organic rice market information is not available at all times, especially the development of organic rice prices and limited information sources on the organic rice market which ultimately results in performance in this sub-system marketing is not optimal. In the sub-system of supporting elements, the average index in the total scores shows good performance. This comes from the contribution of farmers' understanding of the adequacy of alignments and the many government policies on organic rice and their harmony with the program to increase food production that is being promoted by the government. One of them is felt that counselling and training are very important to improve the performance of organic rice farming which is implemented in the frequency of attendance in following the extension of organic rice technology. Other contributions came from the understanding of farmers that the existing Farmers Group was very instrumental in the development of organic rice in facilitating farmers to grow organic rice. It is also felt that information on organic rice farming technology is very important to improve its farming performance and the information sources obtained are still dominantly sourced from government institutions compared to others. The most prominent weakness of this sub-system is the lack of capital assistance. Organic rice cultivation requires considerable costs, such as being confirmed by Krause J., Machek O. (2018) that although previous research is inconsistent, organic agriculture seems to have higher costs, while the ability of farmers' capital is very limited and requires additional capital. Capital assistance provided by Financial Institutions (Banks) is very limited and the accessibility of farmers to get assistance is minimal. Conclusion the results of research on agribusiness systems show sufficient performance. These results have not shown the most optimal achievement, meaning that there are still many weaknesses/constraints in each subsystem that must be met so that this organic rice agribusiness system can run as expected. This is consistent with Oelviani's (2013) statement that good agribusiness performance will be influenced by the development of the upstream agribusiness subsector, primary agricultural subsector, downstream agribusiness subsector and the simultaneous and harmonious supporting services subsector. If this subsystem does not work well, it will result in the failure of the agribusiness system.

Factors Affecting the Sustainability of Organic Rice Agribusiness in the East Priangan Region

Based on the results obtained structural equation: : $\eta 2 = -0.150\,\xi 1 - 0.153\,\xi 2 - 0.0381\,\xi 3 - 0.298\,\xi 4 + 0.237\,\xi 5,$ all Subsystem Performance variables are Production Input Sub-system Performance (ξ_1),Production Sub-system / On-farm Performance (ξ_2), Performance of Sub-system of Handling and Processing(ξ_3), Performance of Sub-Marketing System (ξ_4), and performance of Sub-system Supporting Element(ξ_5)can determine the variation of Sustainability Variables(η_2)with coefficient of determinationR^2 0,414or 41,40 (Table 3). Performance of Production / On-farm Subsystems (ξ2) and Performance of Handling and Processing Subsystemsthe effect is insignificant. Production Input Subsystem Performance Variables (ξ1)and Marketing Subsystem Performance negative and real influence on Variables Sustainability (η2). This indicates that in the East Priangan region of West Java, the performance of the production input sub-system and marketing sub-system performance does not support the sustainability of organic rice agribusiness.

Table 3. Path Coefficients and Significance of Agribusiness Performance Variables on the Sustainability of Organic Rice Agribusiness in the East Priangan Region

Variable Latent	Path Coefficients(γ_i/β_i)	t Value	Status
Influence on Organic Rice Agribusiness Variables(η_2)			
Sub-system Performance Production (ξ_1)	-0.150	-2.553	Significant***
Production Sub-system / On-farm Performance (ξ_2)	-0.153	-0.572	Not Significant
Performance of Sub-system of Handling and Processing(ξ_3)	-0.038	-0.450	Not Significant
Performance of Sub-Marketing System(ξ_4)	-0.298	-2.165	Significant***
Performance of Sub-system Supporting Element(ξ_5)	0.237	2.924	Significant***
$R^2 = 0,414$			

Note: (***) significant with the level of trust99%
Note: (**) significant with the level of trust95%
Note: (*) significant with the level of trust90%
Source: primary data 2017

This is in line with the problems that exist in the production input sub-system, including farmer difficulties. In the supply of organic fertilizer raw materials, the difficulty of transporting to the planting location so that the amount provided has not met recommendations so that it has an impact on low productivity. Data in the field shows that the average productivity of organic rice reaches 5.20 tons/ha and this average productivity is still lower than the average productivity of conventional rice in the study area that had reached 6.19 tons/ha (Prov. Central Statistics Agency Jabar, 2016). This result is in line with what Moudry et al. (2008)., Mader et al. (2002), Udin (2014), Merfield et al (2015) that organic farming yields are generally around 20% lower than conventional agriculture. If this productivity component is not in line with farmers' expectations, the sustainability of organic rice farming is questionable. In the sub-system of marketing, problems are also still being addressed so that they are less supportive of the sustainability of organic rice agribusiness, including the majority of respondents stating the difficulty of marketing the product, there is no marketing agency specifically handling the marketing of organic rice, the cost of organic rice certification is too expensive and the surveillance period for certification. Organic rice is too short for one year, organic rice market information is limited and access is very limited. While the performance variable supporting elements (ξ_5) has a positive and real effect on the Sustainability Variable (η_2). This indicates that in the East Priangan region of West Java, the performance of the elemental subsystem has a good influence and supports the sustainability of organic rice agribusiness. This is supported by various variables that show good performance so that it has a good effect on the sustainability of organic rice agribusiness including variables of government policies, counseling & training, the existence of farmer groups and sources of information. The government has encouraged organic rice farming to develop from before, and other activities that encourage sustainability are counselling and training to improve the performance of organic rice farming, the existence of farmer groups, availability of information Organic rice farming technology and its source of information is very important in improving their farming performance and this has a good effect on the sustainability of organic rice agribusiness.

CONCLUSION

- Based on the agribusiness system approach consisting of sub-systems of production, production / on-farm input, handling and processing, marketing and supporting elements indicate that the development of organic rice agribusiness in the study area obtained sufficient performance.
- All agribusiness subsystems consisting of production input sub-systems, on-farm subsystems, handling/processing subsystems, marketing subsystems and supporting element subsystems influence the sustainability of organic rice agribusinesses.

Acknowledgement

To the Director General of Research and Development Strengthening Cq Director of Research and Community Service who has provided funding facilities to carry out this Doctoral Dissertation Research which is very useful for the smooth and accelerated Research Doctoral Program.

REFERENCES

Algifari. 2013. Statistika Induktif: untuk Ekonomi dan Bisnis. Yogyakarta: Sekolah Tinggi Ilmu Manajemen YKPN

Becker B. 1997. Sustainability assessment: a review of values, concepts, and methodological approaches. Consultative Group on International Agricultural Research, The World Bank, Washington, DC, USA, p 70

Bellows, B. 1994. SANREM Research Report. Proceedings of the Indicators of Sustainability Conference and Workshop. Washington State University, Arlington, Virginia, USA.

Bhagwan, N., Prasad C. 2011. Organic Farming: Hope of posterity. In: Organic Agriculture: Hope of Posterity (Eds.), UP Council of Agricultural Research (UPCAR), Lucknow, India 1-10.

Carpenter Boggs L, Kennedy AC, Reganold JP. 2000. Organic and biodynamic management effects on soil biology. *Soil Sci Soc Am J*., 64: 1651-1659.

Crowder D.W., Reganold J.P. 2015. Financial competitiveness of organic agriculture on a global scale. Proceedings of the National Academy of Sciences of the United States of America, 112: 7611–7616.

FiBL and IFOAM. 2015. The World of Organic Agriculture Statistics & Emerging Trends 2015. Research Institute of Organic Agriculture (FiBL-IFOAM) Switzerland – Germany.

Gozali I. 2005.Analisis Multivariate dengan Program SPSS. Badan Penerbit Universitas Diponegoro. Semarang.

Hayati, Dariush., Ranjbar, Zahra and Karami, Ezatollah. 2010. Measuring Agricultural Sustainability. E. Lichtfouse (ed) Biodiversity, Biofuels, Agroforestry and Conservation Agriculture, Sustainable Agriculture Review 5, DOI 10.1007/978-90-481-9513-8-2 Springer Science+Business Media B.V

Herawati, Noknik Karliya., Hendrani, Januarita dan Nugraheni, Siwi. 2014. Viabilitas Pertanian Organik Dibandingkan dengan Pertanian Konvensional. Lembaga Penelitian dan Pengabdian kepada Masyarakat Universitas Katolik Parahyangan. Bandung.

Heryadi, D.Yadi., Noor, Trisna Insan. 2016. SRI Rice Organic Farmers' Dilemma : Between EconomicAspects and Sustainable Agriculture. Proceedings 1st Global Conference on Business, Management and Entreupreuneurship (GCBME-16). Advances in Economics, Business and Management Research, volume15. Atlantis Press. Pp 176-180.

Heryadi, D.Yadi., Rofatin, Betty. 2016. Kajian Keberlanjutan Pelaksanaan Pertanian Padi SRI Organik. LP2MP Universitas Siliwangi. Tasikmalaya.

Hosseini SJ, Shariati MR. 2003. Attitudes and educational needs of extension agents in agriculture organization of Semnan Province toward Sustainable agriculture. Jih J. 258 : 25-31

Hosseini, Sayed Jamal F., Mohammadi, Floria and Mirdamadi, Seyed Mehdi. 2011. Factors affecting Environmental, economic and social aspects of sustainable agriculture in Iran. *African Journal of Agricultural Research* Vol 6(2), pp 451-457

Hunkeler, D., Lichtenvort, K. and G. Rebitzer, 2008. *Environmental Life Cycle Costing*. Boca Raton: CRC Press.

IFOAM. 2009. 2009 Annual Reports. www.ifoam.org.

Karki, Lokendra; Schleenbecker, Rosa; Hammb, Ulrich .2011. Factors influencing a conversion to organicfarming in Nepalese tea farms. *Journal of Agriculture and Rural Development in the Tropics andSubtropics* Vol. 112 No. 2 (2011) ISSN: 1612-9830, p113–123

Krause J., Machek O. 2018. A comparative analysis of organic and conventional farmers in the Czech Republic. Agric. Econ. – Czech, 64*2018 (1): 1–8.* doi: 10.17221/161/2016).

Luthans, F. 2005. Organizational Behavior. New York: McGraw-hill.

Mader P., Fliessbach A., Dubois D., Gunst L., Fried P., Niggli U. 2002. Soil fertility and biodiversity in organic farming. Science, 296 (5573): 1694–1697.

Mayrowani, Henny. 2012. PengembanganPertanianOrganik di Indoneia. FORUM PENELITIAN AGRO EKONOMI, Volume 30 No. 2, Desember, 2012 : 91 – 108

Merfield, Charles., Moller, Henrik, Manhire, Jon , Chris Rosin, Solis Norton, Peter Carey, Lesley Hunt, John Reid, John Fairweather, Jayson Benge, Isabelle Le Quellec, Hugh Campbell, David Lucock, Caroline Saunders, Catriona MacLeod , Andrew Barber & Alaric McCarthy. 2015. Are Organic Standards Sufficient to Ensure Sustainable Agriculture? Lessons From New Zealand's ARGOS and Sustainability Dashboard Projects. Sustainable Agriculture Research; Vol. 4, No. 3; 2015 ISSN 1927-050X E-ISSN 1927-0518 Published by Canadian Center of Science and Education

Moudrý J., Moudrý J. (Jr), Konvalina P., Kopta D., Šrámek J. 2008. Ekonomickáefektivnostrostlinnébioprodukce. JU ZF, České Budějovice.

Nazir, Mohammad. 2005. MetodePenelitian. Ghalia Indonesia. Bogor.

Nurlaila, 2010. Manajemen Sumber Daya Manusia I. Penerbit Lep Khair.

Oelvianie, Renie. 2013. Penerapan Metode Analytic Hierarchy Process untuk Merumuskan Strategi Penguatan Kinerja Sistem Agribisnis Cabai Merah di Kabupaten Temanggung. Informatika Pertanian, Vol. 22 No.1, Juni 2013 : 11 – 19

Pathak H, Kushwala JS, Jain MC .1992. Eyahiation of manurial value of Biogas spent slurry composted with dry mango leaves, wheat straw and rock phosphate on wheat crop. *Journal of Indian Society of Soil Science* 40: 753-757.

Pimentel D., Hepperly P., Hanson J., Douds D., Seidel R. 2005. Environmental, energetic, and economic comparisons of organic and conventional farming systems. Bioscience, 55: 573–582.

Reddy, Suresh. 2010. Organic Farming : Status, Issues and Prospects. A review Agricultural EconomicsResearch Review 23 : 343-358 July-December 2010.

Ristianingrum, Anita; M. A. Chozin,; Machfud; Sugiyantadan Mulatsih, Sri. 2016. Optimalisasi Keberlanjutan Pengembangan Usaha Padi Organik Di KabupatenCianjur, Jawa Barat. *Jurnal Manajemen &Agribisnis*, Vol. 13 No. 1, Maret 2016. P-ISSN: 1693-5853 E-ISSN: 2407-2524 Terakreditasi SK MenristekDikti 12/M/Kp/II/2015.

Scialabba, El-Hage N. 2013. Organic agriculture's contribution to sustainability. Online. Crop Management doi:10.1094/CM-2013-0429-09-PS.

Sekaran, Uma. 2003. MetodologiPenelitianuntukBisnisEdisi 4.SalembaEmpat.Jakarta.

Septian, Devy. 2010. Peran Kelembagaan Kelompok Tani Terhadap Produksidan Pendapatan Petani Ganyong di Desa Sindanglaya Kec. Sukamantri Kab. Ciamis Jawa Barat. Departemen Agribisnis Fak. Ekonomidan Manajemen Institut Pertanian Bogor. Bogor.

Seufert, Verena. 2012. Organic Agriculture as an Opportunity for Sustainable Agricultural Development. Policy Brief No. 13 Part of the Research Project: Research to Practice – Strengthtening Contributions to Evidence-based Policymaking. Institute for the Study of International Development. Canada.

Sidemen, I Gede., Hartoyo, Budikahono, Gunawan. 2012. Penguatan Kelembagaan Lokaldalam Pengembangan Pertanian Organik di Kecamatan Metro Kibang Kabupaten Lampung Timur. Seminar Hasil-Hasil Penelitiandan Pengabdiankepada Msyarakat Dies Natalis FISIP Unila. Lampung.

Stone, P. B., Lieblein, G., & Francis, C. 2008. Potentials for Organik Agriculture to Sustain Livelihoods in Tanzania, *International Journal of Agricultural Sustainability*, *6 (1),* 22-36.

Surekha K, Rao KV, Shobha Rani N, Latha PC, Kumar RM. 2013. Evaluation of Organic and Conventional Rice Production Systems for their Productivity, Profitability, Grain Quality and Soil Health. Agrotechnol S11: 006. doi:10.4172/2168-9881.S11-006

Udin, Nazeer. 2014. Organic Farming Impact on Sustainable Livelihoods of Marginal Farmers in Shimoga District of Karnataka. *American Journal of Rural Development* 2014. Vol. 2 No. 4 81-88

Van Schooten, M., Vanclay, F. and R. Slootweg, 2003. Conceptualizing social change processes and social impacts. In: H.A. Becker and F. Vanclay (eds.) *The International Handbook of Social Impact Assessment: Conceptual and Methodological Advances.* Cheltenham, UK: Edward Elgar Publishing, pp. 74□91.

Widiarta, Aero., Adiwibowo, Soeryo., dan Widodo. 2011. Analisis Keberlanjutan Praktik Pertanian Organik di Kalangan Petani. Sodality. Jurnal

Willer, Helga and Lernoud, Julia, 2017. Organic Agriculture Worldwide 2017: Current Statistics. ResearchInstitute of Organic Agriculture (FiBL), Frick, Switzerland.

Wulandari, Sucidan Wahyudi, Agus.2014. Manajemen Resikodalam Pengembangan Pertanian Organik di Indonesia. Prosiding Seminar Nasional Pertanian Organik. Bogor.

Zhen L, Routray JK. 2003.Operational Indicators for Measuring Agricultural Sustainability in Developing Countries. *Environmental Manage* 32(1): 34-36

****

ASSESSING THE PERFORMANCE AND FACTORS AFFECTING ORGANIC RICE AGRIBUSINESS AGRIBISNIS

ORIGINALITY REPORT

18%	%	%	%
SIMILARITY INDEX	INTERNET SOURCES	PUBLICATIONS	STUDENT PAPERS

PRIMARY SOURCES

1	jurnal.fp.uns.ac.id Internet Source	11%
2	www.scribd.com Internet Source	1%
3	www.journalijdr.com Internet Source	1%
4	ifsa.boku.ac.at Internet Source	1%
5	www.researchgate.net Internet Source	1%
6	besjournals.onlinelibrary.wiley.com Internet Source	1%
7	Submitted to Universitas 17 Agustus 1945 Surabaya Student Paper	1%
8	mafiadoc.com Internet Source	1%

Exclude quotes	Off	Exclude matches	< 1%
Exclude bibliography	Off		