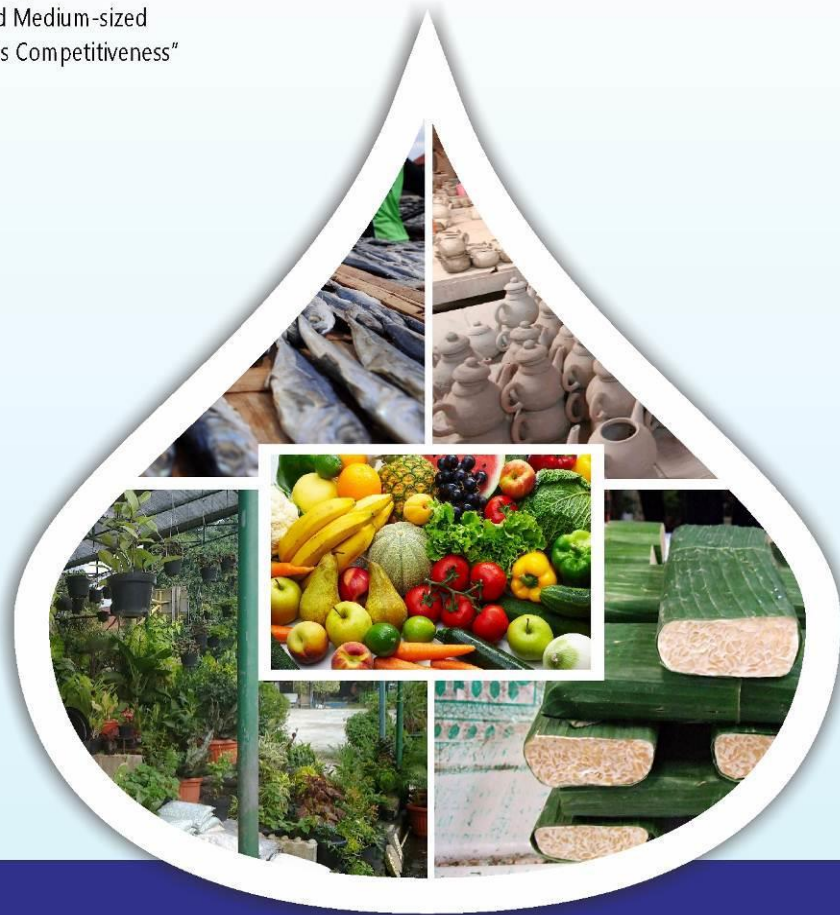




2016

"Small and Medium-sized
Enterprises Competitiveness"

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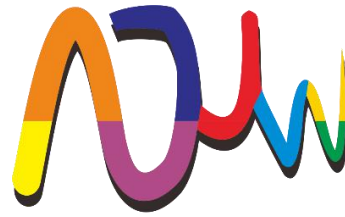
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AGRIBUSINESS
DEVELOPMENT FOR
HUMAN WELFARE

*“Small and Medium-sized
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EDITOR TEAM

Siti Yusi Rusimah
Achmad Fachruddin
Rohandi Aziz
Dara Rosalia

ADDRESS

Agribusiness Department
Agriculture Faculty
Universitas Muhammadiyah Yogyakarta

Jl. Lingkar Selatan, Tamantirto, Kasihan, Bantul, Yogyakarta, 55183
Phone. 0274-387656 (ext. 201) Fax. 0274-387646
e-mail: adhw2016@umy.ac.id

EDITOR FOREWORD

The economic integrations by ASEAN certainly have given a major influence on Small and Medium-sized Enterprises (SMEs). Beside economic integration in the form of free trade area (FTA) that has been going on since the early 2000s, economic integration in the form of ASEAN Economic Community (AEC) has been ongoing since the beginning of 2016. Through this integration, SMEs have opportunity to expand access to markets, technology, and capital. But at the same time SMEs are required to improve their competitiveness in order to survive in the market.

In order to explore ideas, concept, and innovations related to the competitiveness of SMEs, International Conference on Agribusiness Development for Human Welfare (ADHW 2016) was held in Yogyakarta on May 14, 2016. The conference organized by Department of Agribusiness Universitas Muhammadiyah Yogyakarta, in collaboration with Department of Agribusiness and Information System Universiti Putra Malaysia, Department of Agro-Industrial Technology Kasetsart University, Department of Agriculture Socio-Economics Universitas Gadjah Mada, Department of Agriculture Socio-Economics of Universitas Brawijaya, Indonesian Society of Agriculture Economics, Agribusiness Association of Indonesia. Hopefully proceedings of ADHW 2016 provide stimulus for increasing competitiveness of SMEs in ASEAN, especially in Indonesia.

Furthermore, we are grateful to Allah, the Sustainer of all word, who always makes it easy for our affairs. We would like to acknowledge with thanks to all the institution and individual who joined with resources and efforts in organizing the conference that resulted in the papers which are published in this proceeding. Special thanks to all authors and discussants who contributed with their intellectual capital and responded to our call papers. Thanks and acknowledgment are also due to all reviewers of the conference who helped in evaluating submitted papers; and to the members of the Organization Committee, who ensured smooth execution of the event.

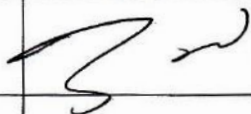
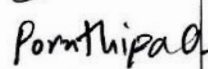

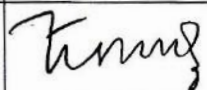
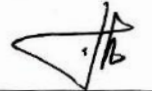
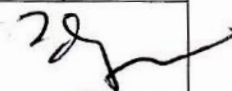
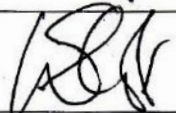
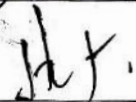
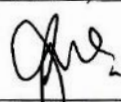

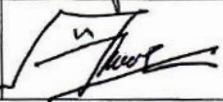
May 30, 2016

Editor

LIST OF REVIEWERS

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2. Prof. Dr. Zaenal Abidin Mohamed (Universiti Putra Malaysia)
3. Dr. Ismail Abd. Latif (Universiti Putra Malaysia)
4. Dr. Juwaidah Sharifudin (Universiti Putra Malaysia)
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14. Subejo, SP, M.Sc., Ph.D. (Universitas Gadjah Mada)
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24. Dr. Ir. Indardi, M.Sc. (Universitas Muhammadiyah Yogyakarta)
25. Dr. Ir. Triwara BS, MP. (Universitas Muhammadiyah Yogyakarta)
26. Dr. Aris Slamet Widodo, SP. MSc. (Universitas Muhammadiyah Yogyakarta)

ATTENDED REVIEWER

NO	NAME	INSTITUTION	SIGNATURE
1	Prof. Dr. Zaenal Abidin Mohamed	UPM	
2	Assistant. Prof. Dr. Pornthipa Ongkunaruk	Kasetsart University	
3	Prof. Dr. Ir. Irham, M.Sc	UGM	
4	Dr. Jangkung HM, SP. M.Ec	UGM	
5	Dr. Ir. Lestari Rahayu Waluyati, MP	UGM	
6	Ir.Edy Dwi Cahyono, M.Sc., PhD	UNIBRAW	
7	Wisnyu Ari Gutama, S.P, M.MA	UNIBRAW	
8	Hery Toiba, S.P.,M.P.,Ph.D	UNIBRAW	
9	Yuniar Khasanah, M.Sc	LIPI	
10	Lusty Istiqamah, M.Biotech	LIPI	
11	Ir. M. Kismuntono	LIPI	

PREFACE

Assalaamualaikum, Warahmatullaahi., Wabarakaatuh.
Dear Honorable Governor of Yogyakarta Special Province
Dear respectable Prof. Dr. Zainal Abidin Mohamed
Dear respectable Asist. Prof. Pornthipa Ongkunaruk
Dear respectable Rector of UMY Prof. Dr. Bambang Cipto, MA.
Dear all invited Guests, Speakers, and Participants of International seminar of ADHW 2016.

Alhamdulillah, all praise be to the Almighty God, so that we can be gathering here today at Muhammadiyah University of Yogyakarta in order to attend the Conference on Agribusiness Development for Human Welfare (ADHW) 2016.

Ladies and Gentlemen,

On behalf of the committee, I would like to say welcome to this International Conference on ADHW 2016 and thank you for attending our invitation.

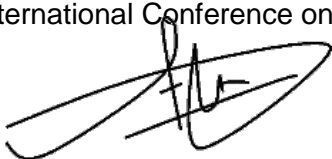
Especially, we are grateful to invited speakers, Prof. Zainal Abidin Mohamed and Asist. Prof. Pornthipa Ongkunaruk, for their willingness to share information and thoughts in this conference. As a bit report, that this conference has been attended by 85 speakers coming from five countries.

This conference entitled "Small and Medium-sized Enterprise Competitiveness". ASEAN Economic Community is the largest economic integration that is going to be implemented at the beginning of 2016 (December 31, 2015). Through this integration, SMEs will have opportunity to expand access to markets, technology, and capital. But at the same time SMEs are required to improve their competitiveness in order to survive in the market. We expect that this seminar is capable of producing thoughts building SMEs within ASEAN, especially Indonesia, to face the free trade.

This event can be done by support and efforts from all sides. Therefore, I would like to say thank you to all committee members having worked hard to conduct this event. We, as the organizer committee, do apologize when there is a shortage in conducting this event.

Wassalamualaikum, Warahmatullaahi., Wabarakaatuh.

Chairman
International Conference on ADHW 2016



Dr. Aris Slamet Widodo, SP., MSc.

WORDS OF WELCOME

Assalamu'alaikum warahmatullahi wabarakatuh

Alhamdulillah, all praise be to Allah SWT, who has given us His blessings so that this International Seminar of Agribusiness Development for Human Welfare (ADHW) 2016 entitled "Small and Medium-sized Enterprises Competitiveness" can be conducted. This International Conference is held in cooperation among Agribusiness Study Program of Muhammadiyah University of Yogyakarta with Putra University of Malaysia (UPM), Kasetsart University (KU), Association of Indonesian Agricultural Economy (PERHEPI), and Agribusiness Association of Indonesia (AAI), Universitas Gadjah Mada (UGM) and Universitas Brawijaya (UB).

Countries of ASEAN members like Indonesia, Malaysia, and Thailand have more than 90% Small and Medium-sized Enterprises (SMEs). In general, SMEs play important role in economic developments such as in terms of employment, added value, improve foreign exchange, and economic growth. For Indonesia, the role of SMEs is limited to employment and added value, while the foreign exchange from SMEs is still low. According to the General Director of SMEs of Industrial Ministry, in 2013 the total SMEs being able to pass through export market is just under 5 percent. For that required many breakthrough and innovation so that the role of SMEs becomes real economic development, especially in Indonesia, and generally in ASEAN countries.

On behalf of Agribusiness Department of Universitas Muhammadiyah Yogyakarta, we would like to express our gratitude Putra University of Malaysia (UPM), Kasetsart University (KU), Association of Indonesian Agricultural Economy (PERHEPI), Agribusiness Association of Indonesia (AAI), Universitas Gadjah Mada (UGM) and Universitas Brawijaya (UB) for all supports, sponsors, and all committee members having worked so hard that this International Conference can be conducted.

Hopefully, these synergies coming from various parties can provide contribution for developing SMEs in Indonesia and other ASEAN countries as well.

Wassalamu'alaikum warahmatullahi wabarakatuh

Head of Agribusiness Department
Universitas Muhammadiyah Yogyakarta



Ir. Eni Istiyanti, MP.



Gubernur

Daerah Istimewa Yogyakarta

Sambutan

KONFERENSI INTERNASIONAL

“AGRIBUSINESS DEVELOPMENT FOR HUMAN WELFARE”

Yogyakarta, 14 Mei 2016

Assalamu'alaikum Wr. Wb.

Salam sejahtera untuk kita semua.

Yang Saya hormati :

- Rektor Universitas Muhammadiyah Yogyakarta;
- Para Narasumber;
- Hadirin dan Para Peserta yang berbahagia,

Puji dan syukur marilah kita panjatkan kehadirat Allah SWT karena hanya atas limpahan rahmat serta karunia-Nya, kita dapat hadir pada kesempatan acara **Konferensi Internasional “Agribusiness Development For Human Welfare”** ini dalam keadaan sehat wal’afiat.

Pada kesempatan kali ini, secara ringkas Saya akan menyampaikan mengenai industri kecil menengah nasional yang menjadi tema pada pembukaan Seminar Internasional “Agribusiness Development For Human Welfare” ini.

Hadirin dan Saudara-saudara sekalian yang Saya hormati,

Berdasarkan data BPS, pertumbuhan industri pengolahan nonmigas pada tahun 2015 secara kumulatif sebesar 5,04%; lebih tinggi dari pertumbuhan ekonomi (PDB) pada periode yang sama sebesar 4,79%. Pada periode Januari-Desember 2015, nilai ekspor produk industri pengolahan nonmigas mencapai USD 106,63 Milyar, dan nilai impor mencapai USD 108,95 milyar, sehingga neraca perdagangan industri pengolahan nonmigas pada periode yang sama sebesar USD 2,32 milyar (neraca defisit).

Usaha pemerintah untuk memperkecil defisit di atas, salah satunya dengan cara memberdayakan Industri Kecil dan Menengah (IKM) yang merupakan bagian penting dalam perkembangan industri nasional. Sampai saat ini, Industri Kecil dan Menengah

telah berkontribusi sebesar 34,82% terhadap pertumbuhan industri pengolahan nonmigas secara keseluruhan.

Angka ini dapat tercapai karena dukungan lebih kurang 3,6 juta unit usaha, yang merupakan 90 persen dari total unit usaha insutri nasional. Jumlah unit usaha tersebut telah mampu menyerap tenaga kerja sebesar 8,7 juta orang, yang tentunya berdampak pada meningkatnya ekonomi nasional serta mengurangi kemiskinan.

Industri Kecil dan Menengah (IKM) memiliki peran yang strategis dalam perekonomian nasional. Hal ini sejalan dengan Visi Pemerintah dalam Rencana Pembangunan Nasional Jangka Menengah (RPJMN) 2015-2019 yaitu *“Terwujudnya Indonesia yang berdaulat, mandiri, dan berkepribadian berlandaskan gotong royong”*.

Untuk lebih meningkatkan peran tersebut, Penumbuhan dan Pengembangan Industri Kecil dan Menengah diarahkan untuk memiliki tujuan jangka menengah guna mewujudkan industri kecil dan industri menengah yang berdaya saing, berperan signifikan dalam penguatan struktur industri nasional, pengentasan kemiskinan dan perluasan kesempatan kerja, serta menghasilkan barang dan/atau jasa Industri untuk keperluan ekspor.

Hadirin dan Saudara-saudara sekalian,

Awal tahun ini, kita telah memasuki era Masyarakat Ekonomi ASEAN (MEA). Dengan demikian, perekonomian nasional akan langsung bersaing dengan para pelaku pasar di kawasan ASEAN. Produk dan jasa termasuk investasi negara-negara anggota telas bebas memasuki pasar di kawasan ASEAN.

Dalam rangka menghadapi hal tersebut, Pemerintah mengambil langkah-langkah strategis berupa peningkatan daya saing industri dan mendorong investasi di sektor industri; di mana peningkatan daya saing industri itu sendiri dilakukan melalui penguatan struktur industri dengan melengkapi struktur industri yang masih kosong serta menyiapkan strategi ofensif dan defensif dalam akses pasar.

Pemerintah telah melakukan Penguatan Sektor IKM dengan strategi ofensif dan defensifnya melalui beberapa program pelaksanaan, diantaranya antara lain: Penumbuhan Wirausaha Baru; Pengembangan IKM melalui Pengembangan Produk IKM serta Peningkatan Kemampuan Sentra dan UPT; Pemberian Bantuan Mesin dan Peralatan Produksi; Perluasan Akses Pasar melalui Promosi dan Pameran; Fasilitasi Pendaftaran Hak Kekayaan Intelektual; Fasilitasi Sertifikasi Mutu Produk dan Kemasan; serta Fasilitasi Pembiayaan melalui Skema Kredit Usaha Rakyat (KUR).

Saya berharap agar berbagai program-program pemerintah tersebut dapat didukung secara sinergis oleh seluruh komponen masyarakat. Untuk itu, Saya berpesan kepada Saudara-saudara sekalian agar semua program pemerintah dalam bidang

Industri, khususnya dalam program pemberdayaan Industri Kecil dan Menengah, didukung dengan sepenuh hati, agar dapat lebih bermanfaat bagi masyarakat dalam rangka pengembangan industri kecil menengah.

Hadirin dan Saudara-saudara sekalian yang Saya hormati,

Demikian beberapa hal yang dapat Saya sampaikan. Akhirnya dengan memohon ridho Allah Subhanahu Wata'ala, seraya mengucap "*Bismilahirrahmanirrahim*", **Konferensi Internasional "Agribusiness Development For Human Welfare"** dengan ini secara resmi Saya nyatakan dibuka. Semoga Allah SWT memberikan petunjuk, bimbingan, perlindungan dan kemudahan dalam setiap langkah dan upaya kita. Amien.

Sekian dan terima kasih.

Wassalamu'alaikum Wr. Wb.

Yogyakarta, 14 Mei 2016
GUBERNUR
DAERAH ISTIMEWA YOGYAKARTA



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RICE SEEDS MARKET STRUCTURE IN EAST JAVA

Rini Dwiastuti¹, Riyanti Isaskar^{1*}, Nur Baladina¹, Tri Wahyu Nugroho¹

¹) Sosioeconomic Agriculture, Agriculture Faculty, Brawijaya University
Veteran Street, Malang 65145

* corresponding author's e-mail : rinidwi.fp@ub.ac.id & riyanti_is@yahoo.com

Abstract

Increasing agricultural productivity is strongly associated with good quality agricultural inputs, price and quality of management. The availability of input in this case rice seeds, farmers still face difficult obstacles determines the sale value of the product, because the practice of monopoly and oligopoly often occur in agriculture. The purpose of this study was to analyze the structure of the rice seed market in East Java. This research was conducted in three districts in East Java, namely: Malang, Mojokerto, and Sumenep. Methods in reviewing the structure of the market by looking at indicators of the level of market concentration, product differentiation, market entry barriers and level of knowledge is by using analytical tools market (market share), CR4 (Concentration Ratio for Biggest Four), Index Hirschman Herfindahl, and Index Rosenbluth. Based on the results showed that the Rosenbluth index analysis tools are relatively suitable for measuring the structure of the rice seed market in East Java, which is a competitive market. This is evidenced by the market concentration does not occur in the three districts. Product differentiation is not the case, in which the varieties can be in the production of various forms of business units. There are no barriers to entry and exit in the market as evidenced by the increasing number of producers in 2014-2015. Almost every manufacturer has knowledge of the location and the price of seed sources of origin, as well as knowledge of the retail price of rice seed products and location-specific marketing.

Keywords : market structure, rice seeds, competitive market

INTRODUCTION

Classification marketing of rice seed by way of distribution consists of a free market and market the program. The free market markets include formal rice seed (certified) and informal (non-certified); As for the program consists of the distribution market through subsidies and direct aid program through Integrated Crop Management Field School.

The results of the study in 1999 found that the overall phenomenon rice farmers using labeled seeds around 30-40 per cent, the rest being self-produced seeds are selected from the previous harvest (PSE, 2000). Meanwhile, a study in 2002 conducted by Rachman et.al. (2003) described the performance of seed industry nationally characterized the phenomenon: (1) share of the seed market is dominated by rice (2) seed

certified superior controlled by the government through price subsidies, (3) Center for Seed Control and Certification is responsible for oversight seed quality, and PT. Sang Hyang Seri (SHS) and PT. Pertani is the largest supplier of national seed requirements, (4) the existence of the rice seed market is still weak, because most (60-70%) of farmers to produce their own seeds for farming purposes, and (5) the perception of farmers to use certified seed is the dominant factor affecting national seed systems development. Conditions of supply of rice seeds were predominantly from own production of the local farmers shift. According to information from sources at the Technical Implementation Unit (UPT) Pengawasan dan Sertifikasi Benih Tanaman Pangan dan Hortikultura (PSBTPH) East Java Province, found in East Java Province in

2014 has produced rice seeds certified 80% of total availability, or as much as 61,000 tons. While the results of the study of primary data in the two sub sample was obtained that the availability of certified rice seeds ranges from 82% to 99% (Dwiastuti, 2016).

Based on Government Regulation on Seed Production System, that the production lines of seed source (BS / Breeder Seed) into scatter seeds (ES / Extension Seed) were ready to be planted by farmers there are two pathways (BAPPENAS, 2013). First, through the bureaucracy, starting from the delivery BS from the Balai Besar Padi in Sukamandi to the Provincial Agriculture Office under the coordination of the Directorate General of Food Crops to proceed to the District Agriculture Office / City through Balai Benih Induk (BBI) to produce seeds basic (FS / Foundation seed), which is forwarded to the Balai Benih Unit (BBU) to produce staple seeds (SS / Stock seed). Seed produced by BBU distributed to farmer seed breeder who has been trained to produce seedlings for distribution (ES / Extension Seed) ready to be deployed to the farmers. Secondly, through the cooperation / partnership between the Research Institute with state / local enterprises for the production of basic seed (SS) to disseminate seed (ES) which is ready for use by farmers. The line was shorter and handled by professionals, especially in state-owned enterprises (PT Sang Hyang Seri and PT Pertani).

But in the real condition occurs the phenomenon that the rice seed market share in the province of East Java and Central Java is controlled by a private breeder / local; whereas in the province of West Sumatra and South Sulawesi, the opposite occurs, the role of state-owned enterprises (PT SHS and PT Pertani) was dominant in the marketing of seeds (Rachman, et.al, 2003). Kediri and Ngawi Regency as sample locations from East Java province shows that the market share of PT SHS respectively 35% and

44%, while PT Pertani respectively by 15% and 22%, while the breeders private / local respectively 50 percent and 33 percent. Total private breeder / local in the province of East Java in 2014 as many as 580 business units, with various forms of business (Dwiastuti, et.al, 2014). Diversity includes the establishment of individual businesses, trade business (UD), CV, Limited Liability Company (PT), Cooperative, Group breeder, farmer groups and farmer seeds. The business unit UD form as many as 73 units, in the form of a CV and PT each as much as 33 units and 22; while the largest business unit in the form of individual (247 units). In addition, the phenomenon of migration airy showed their rice seed between districts and between provinces. There are 42% of respondents private breeder in Malang market the rice seed production outside the district and 21% also sells to outside of East Java Province. Meanwhile, respondents farmers spread over four districts of Malang regency example using rice seeds produced by private breeders located outside Malang Regency, which is derived from Jombang, Ngawi, and Mojokerto.

The study results Rachman, et.al (2003) described the structure of the rice seed market in Indonesia are generally characterized by: (1) market share is concentrated in two state-owned enterprises, namely PT SHS and PT Pertani, (2) differentiated in terms of quality, varieties, and the levels or classes of seeds (SS and ES), (3) absence of entry barriers out of the market, and (4) the price information according to the type and quality of seeds is relatively easy to obtain. As well as not stated explicitly shape the rice seed market structure in Indonesia. Based on field phenomena contained in the province of East Java, interesting to examine the structure of the rice seed market. Market structure is important to studied, because as the basis for regulations effective distribution

arrangement so that the rice seed industry efficiently. The purpose of the study is to identify the market structure variables are specific and relevant to the commodity rice seeds, as well as analyzing the structure of the market.

METHOD

1. The Method to Determining of Location

Location of the study districts examples to support the collection of primary data. Determination of the location of research conducted by multistage cluster sampling method, ie starting from the stage specifies the district, sub-district to the village sample. First, the establishment of the district was purposively based on the existence of rice seed producers, according to information from the board of Himpunan Produsen Pedagang Benih East Java Province (HPPB East Java). Regency example is Malang (representing the locations with their business unit breeder large-scale private), Mojokerto (representing the locations with their business unit of seed paddy from the Department of Agriculture), and Sumenep (representing Madura and has a number of manufacturers of the highest on the island of Madura). Second, the determination of sample districts from each district sample, which were determined purposively based on the considerations contained village rice seeds subsidy recipients of government, as well as the farmers are partners breeder of rice seed producers according to various scale (enterprises, large private and individual).

2. The Method to Determining of Respondents

The population in this study is a rice seed producers and marketing agencies are involved in the marketing of rice seed, which stores and /or stall that sellers of agricultural inputs at the sub-district or village. Respondent rice seed producers conducted a census. Search

the number and location of the manufacturer of rice seeds from each district based sample information from the office of the District Department of Agriculture, as well as the Task Force UPT PSBTPH of sample districts. Therefore the number of members of the population marketing agencies involved in the marketing of rice seed in each district an unknown sample, the respondents making marketing agencies using snowball sampling method. Application of snowball sampling begins from rice seed producers as a key informant for rice seed producers have accurate information about marketing or distribution channels. Search marketing agency ends on farmers consumers (users) of rice seed. Under this method, found the number of respondents according to the classification and district examples are presented in Table 1.

3. The Method Analysis

The type of data analyzed include secondary data and primary data. Secondary data were obtained from the Technical Implementation Unit Seed Control and Certification of Food Crops and Horticulture in East Java (UPT PSBTPH East Java) in the form of annual reports; as well as from HPPB East Java. While the primary data came from respondents breeder seed paddy. In this study using descriptive statistical analysis of each variable identified.

Table 1. Respondent Producers and Marketing Organization Market Structure Rice Seed in East Java

No	Respondents Classification	Amount of Respondent in:		
		Malang	Mojokerto	Sumenep
A.	Producers			
1.	Limited Liability Company (PT)	2	1	1
2.	Trading Business (UD)	7	7	2
3.	Department of Agriculture (Technical and Operation Unit)	3	1	-
4.	Seed Garden	-	-	1
5.	Farmer Groups Breeder	3	1	11
6.	Cooperative	1	4	-
	Total Respondent	16	14	15
B.	Marketing Agency			
1.	Trading Business	13	14	16
2.	Farm stall	14	9	-
3.	Store	-	-	8
4.	Cooperative	-	-	2
5.	Broker Farmer Groups	-	-	2
	Total of Respondent	27	23	28

Sources: Primary Data, 2015

Determination of market structure based indicator of market concentration using analytical tools market (market share), CR4 (Concentration Ratio for Biggest Four), Herfindahl Hirschman Index, and Rosenbluth Index. Among the analyzer will be selected in accordance with the real phenomenon of the field. In addition, the market structure determination of indicator concentration is also based on secondary data analysis using simple descriptive statistics. The same method is used to determine the structure of the indicator level of product differentiation, barriers to market entry, knowledge and access to use.

RESULT AND DISCUSSION

1. Identification Variable Market Structure

From the search results of previous studies (Rachman, et.al, 2003) as well as the results of the study Dwiastuti, et.al, 2015 obtained the identification of variables relevant to the market structure of commodity rice seeds are presented in Table 2. Overall variables that have been identified further serve as base to reveal the structure of the rice seed market based on secondary data and primary data.

Table 2. The Result of Identification Variable Rice Seeds Market Structure in East Java

No	Indicator	Variable	Status ^{a)}	Fenomena ^{c)}
1.	The Level of Market Concentration	number of producers	existing	Growing every year
		The volume of production of each producer	existing	No dominant
		government policy		Subsidies and direct aid rice seed
		The diversity of forms of business units	finding	Diverse: CV, UD, PT, individual, cooperatives, groups
2.	The Level of Product Differentiations	The number of retailers (stores and stall)	finding	Each sub-district stores and stall available means of agricultural production
		quality varieties	existing	seed quality standards by grade seed
		class seed	existing	Manufacturers meet the demand site-specific and outside the region
3.	Barriers to Market Entry	Trademark	finding	Farmers (consumers seed) using seed stock class seed (SS), and extension seed (ES). One variety is produced by a different breeder with different trademarks
		Terms of quality standards:	finding	a. Manufacturers are classified into three classes: - Class A: manufacturers are entitled to produce seed class FS, SS & ES - Class B: manufacturers are entitled to produce seed class SS & ES - Class C: manufacturers are entitled to produce seed class ES b. Every year the number of growers by class manufacturer fluctuate
4.	The Level Of Market Knowledge	a. completeness of administration	finding	Breeder to know the price of each class of seed sources
		b. Owners facilities and infrastructure	finding	Breeders know the name of the institution and location of the source of seed producers in accordance with the needs of growers
		c. Owners of skilled labor	existing	There is the price dynamics of each growing season
		d. Pass field inspection and laboratory	finding	Breeder knows consumer tastes
5.	Access to input-output	Prices seed sources	finding	One breeder (producers) can produce more than one class of seed
		The original location of seed sources	finding	Private breeder who become partners of state-owned and not a partner, distributing rice seed production outside the district and provincial
		The retail price of seeds	finding	There are eight units of the business of PT as LSSMBTPH ^{d)} : Data 2013)

Description:

a) Existing = results of the study Rachman, et.al (2003); finding =study results Dwiastuti, et.al (2015)

b) Source consists of: (1) Breeder Seed / BS, (2) Foundation Seed / FS, and (3) Stock Seed / SS.

c) The conditions at the time of assessment 2015

d) Quality Management System Certification Body Food Crop and Horticulture Seeds (LSSMBTPH)

2. Market Structure Analysis

Description of the structure of the market is served partially by the indicators and variables that have been obtained from real phenomenon based on secondary data and interviews from respondents.

a. The Level of Market Concentration

Based on data from seed crops in East Java province up to 2015, identified as many as 459 (89%) business unit of rice seeds from 515 units of food crop seeds business. The condition is an increase of 7% compared to 2014. Meanwhile, according to the production volume of each rice seed business units tend to no one dominates (Table 3). In 2015 there is a condition that the Trade Enterprises (UD) business unit forms the largest rice seed, but only has a market share of 15%. Although most (35%) produced by the seed production gardens, but the participating business units covering as many as 65 units of local government owned seed orchards provincial and regional levels, and village gardens. Likewise with business form Limited Liability Company (PT); although the PT has a market share of 27%, but the amount involved as many as 22 business units. So there is no phenomenon of market concentration.

The diversity of the business units based on primary data (Table 2) is

consistent with the diversity derived from secondary data. The diversity of the business unit occurred in all districts examples. Trade Enterprises is one form of rice seed business units most often found in East Java province, according to both the primary data and secondary data. Nevertheless forms Trade Enterprises cannot be said to dominate the market for rice seed in the East Java Province because of the relatively small market share. Additionally, in each district provided examples of diverse marketing agency with an average number of 26 units per district.

Based on the data shown in Table 1 and Table 3, as well as the identification of indicators of market concentration variables (Table 2) it can be said that the shape of the structure of the rice seed market in East Java province is a competitive market. The phenomenon is not a concentration of markets rice seed based on the conditions: (a) the number of producers of rice seeds that grow each year, (b) form a business unit of the seed variety and no business unit that dominates the volume of production, (c) the government policy of subsidies and help direct seed whose role is to ensure continuity, (d) the diversity and number of forms of marketing agencies that function to distribute rice seed.

Table 3. The Quantity of Seed Production in The Form of a Business Unit in 2015

Forms of business units	Number		Production (ton)					
	(N)	(%)	Average	STD	Min	Max	Total	%
Trade Enterprises (UD)	141	31	101.99	172.31	10	1,500	14,381	15
Individual	85	19	91.79	145.93	10	900	7,802	8
Garden	65	14	503.00	3,135.23	8	25,000	32,695	35
Breeder seed	47	10	153.00	723.47	10	5,000	7,191	8
Farmers / Farmers Group	35	8	37.29	43.65	5	190	1,268	1
CV	30	7	114.00	100.66	10	450	3,420	4
Limited Liability Company (PT)	22	5	1,163.64	1,434.54	20	4,500	25,600	27
Cooperative	18	4	75.88	64.96	15	250	1,290	1
Service	8	2	59.38	43.71	10	125	475	1
Village Unit Cooperatives (KUD)	4	1	41.25	22.50	15	60	165	0
Breeding centers / BPP	4	1	41.25	16.52	25	60	165	0
TOTAL	459	100					94,452	100

Source: UPT PSBTPH East Java Province, 2015 (processed)

Based on the phenomenon that the rice seed market in East Java market concentration does not happen, then among several methods of analysis are presented in Table 4 it can be said that the method is relatively suitable to test the market structure is Rosenbluth index. The condition does not happen the market concentration in terms of the number and

diversity of rice seed business units involved, as well as in terms of volume of production of each unit of seed producers. Based on the method Rosenbluth index analysis we concluded that the structure of the seed market in three sub sample is competing. The phenomenon is relevant to the phenomenon that is based secondary data.

Table 4. The Result of Market Concentration Rice Seed Producers in The Third District at East Java

Analysis Tools	Malang		Mojokerto		Sumenep	
	Result	Market Structure	Result	Market Structure	Result	Market Structure
<i>Market Share (Merger four leading companies)</i>	64,35%	Tight Oligopoli	74,88%	Tight Oligopoli	72,54%	Tight Oligopoli
CR4	0,64	Tight Oligopoli	0,75	Oligopoli	0,72	Tight Oligopoli
HHI (Hirschman Herfindahl Index)	0,15	Oligopoli	0,17	Oligopoli	0,22	Oligopoli
RI (Rosenbluth Index)	0,13	Perfect Competitoin	0,17	Perfect Competitoin	0,18	Perfect Competitoin

Sources: Primary Data, 2015

b. The Level of Product Differentiations

The difference is traded products can also determine the level of competition in the market (Kotler and Keller, 2009). Sukirno (2005) stated that one of the characteristics of perfect competition market structure is the resulting product is the same (identical). Based on the classification of seed sources, the rice seed product market consisting of four classes, namely class rice seed Breeder Seed (BS), Foundation Seed (FS), Stock Seed (SS), and Extension Seed (ES). Meanwhile, varieties in the market is very diverse, among Ciherang, IR64, Cibogo, Way Apo, Makonga, Situbagendit, Membaramo, and several other varieties. From grade level seed and rice seed varieties, whether in rice seed product market differentiation occur?

Based on the analysis of secondary data obtained information that in 2015 in the area of East Java province there are 459 producers of rice seed business unit, which consists of 38 business units of rice seed class A, class B 347 units and 74 units of class C. Manufacturer of the seed supply included in class A is a manufacturer who earns the right to produce seed class FS, SS, ES. While manufacturers are grade B rice seed producers who earn the right to produce seed class SS and ES; and manufacturers

are included in the class C is a rice seed producers who have the right only to produce seed class ES. Thus there will be conditions that manufacturers of class B will compete with manufacturers of class A in the class SS seed market. Similarly, the class C rice seed producer, will compete with manufacturers of class B and A on the seed market ES class, the seeds are ready to be planted by farmers. In other words, there is a phenomenon that one business unit will compete with other business units in the class and the same variety. Rice seed market competition not only in the business units of different classes, but it can occur in the form of business units (Table 5).

In Table 5 shows the occurrence of the phenomenon that a business unit in the form of Trade Enterprises will compete with other business units in the class of different manufacturers, and will compete with a different form of business in the same class. In the seed market in the ES class, a manufacturer of Trade Enterprises shape on the class C will compete with manufacturers from class B and A, and will compete with other companies in the same class in the form of a CV or PT. Diversity grade rice seed producers in the form of a business unit which can in Table 5, reflecting the tightness of the class diversity of rice seed in the East Java province.

Table 5. Number of Rice Seed Producers in East Java by Class Manufacturer and Form Business Unit, 2015

Forms of business units	Class Manufacturer of Rice Seeds			Total of business units
	A	B	C	
Trade Enterprises (UD)	10	110	21	141
Individual	6	71	8	85
Garden	12	44	9	65
Breeder seed	0	37	10	47
Farmers / Farmers Group	0	31	3	34
CV	2	18	10	30
Limited Liability Company (PT)	3	14	5	22
Cooperative	3	3	7	13
Service	1	7	0	8
Village Unit Cooperatives (KUD)	0	3	1	4
Breeding centers / BPP	1	3	0	4

In Table 5 also shows that the phenomenon of class producer evenly spread over the various forms of business units. This reflects that if the rice seed producers involved in a market increasingly spread by class manufacturer and shape business unit, then there is no concentration, or there is competition between manufacturers. The competition occurs in rice seeds classes ES and SS in the form of Trade Enterprises (UD). Meanwhile, competition between manufacturers is also going according to varieties of rice seeds produced (Table 6).

Based on interviews with key informant free on-site sample obtained information that varieties produced by seed rice in East Java Province tailored to the needs of farmers. Rice seed varieties to get the information of interest and desired by the user by means of a survey of farmers or farmers directly asking the user about the location of the breeder, or ask at the kiosk or store farm as an institution that normally interact directly with the farmers. In addition, each business unit has different trademarks. So that one type of ES or SS class varieties can be produced by various business units with various different trademarks. Of the total respondents manufacturer phenomenon sample obtained absence packaging size variation. In general, manufacturers are making two kinds of packaging sizes, namely 10 kg and 5 kg.

In Table 6 it appears that the varieties can be produced by a unit of the business of Trade Enterprises, Limited Liability Company, farmer groups, as well as offices. This reflects the market competition between various forms of business units. Thus it can be said that the class diversity of seeds, varieties and trademarks can be used as a variable that explains the existence of competition between companies in the rice seed market in East Java province.

Table 6. Differences Varieties Produced by Producers Rice Seed

No	Forms Business Units	Malang		Mojokerto		Sumenep	
		Σ Business Units	Produced Varieties	Σ Business Units	Produced Varieties	Σ Business Units	Produced Varieties
1	Trading Business	7	Ciherang, IR64, Cibogo, Way Apo, Makonga, Situbagendit, Membaramo	7	Ciherang, Situbagendit, IR64, Way Apo	2	Ciherang, IR64, Situbagendit
2	Cooperative	1	Ciherang, Cibogo, IR64, Situbagendit	4	Ciherang, Situbagendit, IR64, Cibogo	-	-
3	Breeder Farm Groups	3	Ciherang, Makonga, IR64, Sidenok, Cibogo	1	Ciherang, Situbagendit, IR64	11	Ciherang, Cibogo, Situbagendit
4	Company	1	Ciherang, IR64, Cibogo, Way Apo, Situbagendit	1	Ciherang, Situbagendit, IR64, Way Apo, Membrano	1	Ciherang, Situbagendit
5	Department/TOU	3	Ciherang, IR64, Cibogo, Inpari 14, Inpari 19	1	Ciherang, Situbagendit	1	Ciherang

Sources: Primary Data, 2015

c. Barriers to Market Entry

The phenomenon of the absence of barriers to entry and exit points in the market rice seed in the East Java province in harmony with the results of the study Rachman, et.al (2003) on the structure of the rice seed market in Indonesia. Conditions that favor this phenomenon is the change in the number of producers of rice seeds each year, either by class producers and form business units. In Table 7 generally show their manufacturer or rice seed business unit that entered the market between the period 2014 and 2015. Specifically it also reflects a phenomenon that in 2015 there were a manufacturer or a business unit of the seed out of class manufacturer A, and there are manufacturers who entered the market at the manufacturers class B and C. the dynamics are happening because there is a rice seed producers can not continue business unit in particular for the production class meets the requirements of quality standards. Sustainability of rice seed business units based on the assessment results of the Technical Implementation (UPT) Seed Control and

Certification of Food Crops and Horticulture (PSBTPH) East Java Province held every year. The requirements in the classification established by BPSB is completeness: (a) administration, (b) infrastructure owned, (c) a skilled work force in terms of educational background and courses have been followed, and (d) passed the examination field and laboratories in the process of seed certification.

Results of secondary data analysis showed a difference between years in the seed planting area and the amount of rice seed producers in the district. The condition occurs because of the lack of continuity of the new producers, especially from the business unit Farmers Group (Gapoktan). Therefore, the business unit is a project formed Gapoktan top down, it tends to not be able to compete. Gapoktan business unit is expected to be a rice seed business units independently, but in reality a lot of obstacles.

The phenomenon of the absence of barriers to entry and exit rice seed market is also supported their light requirements

as a producer of rice seed. Based on information from sources in UPT PSBTPH East Java province, that requirement can be a producer of rice seeds is a business unit that is capable of producing at least 10 tons per cropping season. Assuming productivity of rice seed is 5 tonnes / ha / MT, the farmers who have two hectares could be a breeder. In addition, the program Seed Production Village Self contained new producers in the form of individual business units and business groups. During the coaching process lasts empowerment rice seed producer, production has increased; but at the time

of formation has ended, then the production process does not continue. In general, a business unit of the seed supply is continued per scarecrow. Producers who are inactive because no marketing constraints. Viewed from the technological aspect of cultivation, there is no phase difference between producing rice for consumption by seed. Differences occur only in the seed certification process, ie, no field inspection requirements during the process of cultivation and post-harvest laboratory investigations.

Table 7. Changes in The Number of Rice Seed Producers in East Java by Class Manufacturer

Class Manufacturer	Number of Producers in ...		Change s	
	2014	2015	N	Ket
Class A (Seed of Producer: FS, SS, ES)	57	38	19	↓
Class B (Seed of Producer: SS, ES)	340	347	7	↑
Class C (Seed of Producer: ES)	33	74	41	↑
Total	430	459	29	↑

Based on these descriptions can be said that the phenomenon of the absence of barriers to entry and exit seed in the East Java province due to: (a) the requirements that easily become new producers, (b) the government policy, and (c) technology is a simple process rice seed production.

d. The Level Of Market Knowledge

In Table 2 has been described that the indicator variable market knowledge that is used to describe the structure of the rice seed market include price variable seed source, the origin location of seed sources, the retail price of seeds, and the location of the manufacturer loyal. Based on the analysis of primary data obtained information that respondents banih rice producers generally determines the origin of the seed source. Seed source for generating seed class FS (Foundation

Seed) can be obtained from the Seed Sukamandi and the Parent Seed Center Jember. While the source of seed to produce seed class SS (Stock Seed) comes from the Institute for Development of Agricultural Technology (BPTP) or the Department of Agriculture provincial level. Seed sources to produce seed class Extension Seed (ES) can be obtained from another breeder. Ownership of knowledge origin location of seed sources vary according to the shape of the business units as presented in Table 8.

Meanwhile, respondents manufacturer of Malang and Mojokerto informed that the price of seed sources purchased from Seed Rice Sukamandi Rp 12,500, - per kg, from BPTP Rp 11,500, - per kg and the price of seed sources of breeder another Rp 11,000, - per Kg. The purchase price which occurs in Sumenep relatively more expensive when compared

with the other two sample districts. Seed price information sources provided by the manufacturer does not vary according to the shape of the business unit.

Based on the results of free interviews with resource persons from one of the state rice seed producers obtained information that a manufacturer in East Java Province compete with producers from Central Java province, namely

Boyolali. Competition does not only occur between provinces, but also occurs between districts in East Java Province. Seed producers in Lumajang and Malang compete with seed producers in Banyuwangi. The condition occurs because their farmers seed supply consumers fanatic on rice seed products from specific regions.

Table 8. Knowledge Respondents Rice Seed Producers in The Three Districts of The Site of Origin of Seed Sample Source

No.	Form of Business	Origin of Seed Source according to respondents in the ...		
		Malang District	Mojokerto District	Sumenep District
1	Trading businesses	BPTP, Sukamandi, Viva Tani Mandiri	Sukamandi, Viva Tani Mandiri Malang	Jabon Mojokerto, Viva Tani Malang, Balai Benih Induk Jember
2	Cooperative	Sukamandi	Sukamandi, Viva Tani Mandiri Malang	-
3	Farmers breeder	Viva Tani Mandiri	Viva Tani Mandiri Malang	Mojokerto Ganden Seeds, Sukamandi, BPTP Malang, UD. Murni Utama Sumenep, PB. Padi Mas Nganjuk, PT. Pertani Jombang,
4	Company (PT)	Sukamandi	Sukamandi, Viva Tani Mandiri Malang	Sukamandi dan Viva Tani Malang
5	Department / Unit	Sukamandi, Viva Tani Mandiri	Sukamandi	-
6	garden Seeds	-	-	Mojokerto Garden Seeds

Description : Sukamandi is Central of Rice Research ; BPTP = Research Institute for Crops

Prices of seeds of Boyolali (Central Java Province) amounting to Rp 11,000, - / kg, from Banyuwangi Rp 10.000, - / kg, of UPB Muncar Rp 8.400, - / kg, while the price of the seed of Lumajang Rp 7.900, - / kg. This happens because the grain quality of Boyolali and Banyuwangi is good, besides the price is expensive because of the position of goods difficult to obtain due to the lack of balance between supply and demand. Some areas are fanatic seeds from Boyolali are: (a) Madison, include: Madiun, Ngawi, Magetan, Pacitan, Ponorogo; (B) Kediri, include: Kediri, Nganjuk, Blitar,

Tulungagung, Terri; and (c) Mojokerto, consisted of: Mojokerto, Jombang, Lamongan, Bojonegoro and Tuban. As for some of the areas that fanatic to seeds of Banyuwangi are: (a) Malang, include: Malang (northern region), Pasuruan and Probolinggo; and (b) Banyuwangi, include: Banyuwangi, Situ Bondo, Bondowoso and Jember.

Meanwhile, from the analysis of primary data can be obtained that knowledge rice seed product marketing location relative vary according to the form of business units (Table 9). Respondents producers in the district of Malang

relatively less diverse when compared with the other two sample districts.

Based on the description, it can be said that there is no concentration of ownership of market knowledge on a particular manufacturer, because almost every manufacturer has knowledge of the location and the price of seed sources of origin, as well as knowledge of the retail price of rice seed products and location-

specific marketing. If the diversity on rice seed producers have knowledge of: (a) the price of each class of seed sources, (b) the name of the institution and location of the source of seed producers in accordance with the needs of growers, and (c) determine the tastes of consumers, the market increasingly competitive.

Table 9. Knowledge of Respondents Producers of Rice Seed Samples of Three Districts of the Rice Seed Product Marketing Location

No.	Form of Business Unit	Marketing-site of Rise seeds		
		Malang	Mojokerto	Sumenep
1	Trading businesses	Malang, Tuban, Sumenep, Pasuruan, Kediri, Nganjuk, Ngawi, Lamongan, dan Banyuwangi	Mojokerto, Lamongan, Nganjuk, Malang, Sumenep, Semarang, Bandung, Samarinda, Bali, Timor Leste	8 sub-districts in the district. Sumenep and 3 districts in Kangean Islands
2	Cooperative	Malang	Mojokerto, Pasuruan, Malang, Nganjuk	-
3	Farmers breeder	Malang	Mojokerto, Gresik, Sidoarjo, Pasuruan, Jombang, Kediri	13 districts in the district. Sumenep, 3 districts in Kangean Islands, seven of the districts in Poteran Islands
4	Company (PT)	Malang	Mojokerto, Jombang, Gresik, Malang, Sumenep	14 sub-districts in the district. Sumenep, 3 district. in Kangean Island, and the districts in the island Poteran
5	Department / Unit	Malang, Pasuruan	Mojokerto, Pasuruan, Malang, Kediri	-
6	Garden Seeds	-	-	4 districts in the district. Pamekasan, 3 districts in Kangean Island and 4 districts in the district. Sumenep

e. Access to input-output

Variables associated with indicators of accessibility to both input and output consist of: (a) obtaining access to a diversity of seed sources, (b) access to distribution outside the region, and (c) the right to access independent certification as listed in Table 2. Each producer of rice seeds belonging to the class A (Table 7) can access the three types of classes of seed sources, thus in 2015 there were 39 business units rice seed producers are competing for class seed BS (Breeder seed). And there are 405 business units (38 units of business-class manufacturer of A and 347 units of business-class manufacturer B) will compete for class seed FS (Foundation Seed), and there are 459 business unit manufacturers who will be competing for seed source class SS (Stock seed). Ease of rice seed producers to get some classes of seed sources would lead to increased competition for input (seed source) and competition in the marketing output (product seed).

Respondents included rice seed producers in the form of Trade Enterprises in the district of Malang, there are seven business units. The respondent has a market area in Malang, Tuban, Sumenep, Pasuruan, Kediri, Nganjuk, Ngawi, Lamongan, and Banyuwangi (Table 9). Thus, seven respondents will compete with nine other business units manufacturer domiciled in Malang, competing with 15 business units rice seed producer located in Tuban in marketing rice seed. And will be competing with several business units of local producers from other districts.

Since 2013, in East Java province there are eight business units rice seed producers who obtain independent certification rights, namely as private seed producers accredited Quality Management System Certification Food Crops and Horticulture Seeds (LSSMBTPH). Manufacturers are PT. SHS, PT. BISI, PT. DUPONT, PT.

BAYER, PT. Longping, PT. SURYA SEEDS, PT. SAS, PT. A.M. PERTIWI. Companies that earn the right to self-certification class seed SS and ES only PT SHS, whereas others only seed producers ES class, and even then only for hybrid rice seeds. If the right of self-certification extended to non-hybrid seeds, it will make happen concentration or the concentration of production at some manufacturers.

Thus it can be said that the ease of obtaining seed as the input source and the ease of distribution of seed products as output could increase competitiveness among producers on the local site and outside the district. Whereas the right to self-certificate can make a producer has a much stronger position that could lead to market concentration

CONCLUSION

Based on the analysis of several indicators of market structure, it can be concluded that the structure of the rice seed market in East Java, is a competitive market; supported by secondary data at the provincial and district primary data from Malang, Mojokerto, and Sumenep. Implementation of the five indicator variables rice seed market structures that have been identified need to be tested in other areas, so we get an accurate measurement of market structure.

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DISCUSSION FROM PARALLEL SESSION

PAPER TITLE	Rice Seeds Market Structure in East Java
AUTHOR	Rini Dwiastuti, Riyanti Isaskar, Nur Baladina, Tri Wahyu Nugroho
DISCUSSION	
QUESTION	<ul style="list-style-type: none">- Please explain about indicator and variable position- How do you make conclusion based on tabel 4 (for market structure)- How do you determine for leading companies?
ANSWER	-
SUGGESTION	-



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SECRETARIAT OFFICE

F3 Ground Floor, Agribusiness Department,
Universitas Muhammadiyah Yogyakarta
Jalan Lingkar Selatan Tamantirto,
Bantul. D.I.Yogyakarta 55183
Phone +62274 387656 (Ext 201)
Fax +62274 387646

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