Man In India, 96 (5) : 1697-1702

ANALYSIS OF FACTORS MARKETING OF COMMODITIES RICE INTER-ISLAND IN SOUTH SULAWESI

Majdah M. Zain, Suardi Bakri, Helda Ibrahim and Gufran Darma Dirawan

This research aimed to analyze the driving and pull factors the rice trade inter-islands in Sulawesi. The location of this research has been conducted in the province of South Sulawesi as the regional origin of the shipment and multiple areas between islands. Primary data collected by the respondent inter-island rice traders who are located around the port of Pare-Pare, Sidrap and Pinrang to the west coast while the east coast is around the portSiwa and Bone the research has been done byusing questionnaires. The number of population and sample about 24 respondents were selected at random. The data analysis technique which uses gravity method models.The results showed that the total population of the area destinations is not significant to be a pull factor of rice tradeinter-islands. The transportation cost is become a limiting factor that correlated negatively and significantly related to rice tradeinter-islands. Increased transaction costs such as levies or charges in the chain of inter-island rice trade will have a significant effect lowering the rice trade imter-island.

Keywords:*Driving factors, pull factors, inter-island rice marketing.*

INTRODUCTION

The agricultural sector in Indonesia is one of strategic sector in the framework of national development, because it has contributed substantially to the Gross Domestic Product (GDP) which is equal to 15.94%, and as an employer of the largest of the total national employment amounted to 44.34% (BPS, 2002). The rate of growth in national rice production is high mainly occurred in the period 1979-1983 at an average of 7.73%. and the rate of productivity growth reached 6.61% per year. Therefore this period, the crop farming sector recorded a resounding success recognized by achieving self-sufficiency in rice (Simatupang, 1999). Furthermore, Riyadi (2002) confirms that this success is the pride of Indonesia International in scope, because the agricultural sector makes Indonesia is able to meet its own food needs and become the country's largest rice importer.

The achievement of self-sufficiency of basic goods ie, rice through the success of the green revolution movement with the intensification of the package that was originally able to create an increase in national rice production and productivity, but over the last ten years the national rice production is at a stage of saturation growth. Some experts considered that the development of agriculture through the motions "green revolution" would lead to damage to the ecological balance and fertility of agricultural land resources degradation that threaten the sustainability of agricultural resources (Soepardi, 2000).

* Universitas Islam Makassar

Develop agriculture in the food sector, especially rice plants, faces considerable challenges. The challenge comes from supplies of and demand for rice. This challenge is in line with population growth and economic growth, thereby providing a logical consequence of the amount needed more production and better production quality (Arifin, 2004).

South Sulawesi province is known as one of the barns of national and historical societies South Sulawesi since the sixteenth century, it has done inter-island trading activities including rice trade through the port of Makassar Pare-Pare. Furthermore, the activity of trade between the island and the region has been supplying the needs of rice to various areas, especially in eastern Indonesia such as Kalimantan, East Nusa Tenggara, West Nusa Tenggara, Southeast Sulawesi, Ambon, Papua through a distribution mechanism Dologas the goverment institutions to control rice production and through the activity of trade between island played by the private sector. Even today can penetrate the market for Java which is bearing the title as having the highest productivity of rice production.

Improving the competitiveness of rice products was not easy, as they relate to all sectors (inputs, production, processing, and marketing) as well as related policies that can provide a solution that is mutually beneficial for all market participants. The inability of South Sulawesi in increased competitiveness and to compete, due to several factors one of which marketing efficiency has not been able to be realized. Based on several studies above, the purpose of this study was to analyze the factors is the driving factor and a pull factor the rice trade inter-islands.

RESEARCH METHODS

This research has been done in South Sulawesi Province as areas of origin shipment and multiple purpose areas inter-islands. The data used is primary and secondary data. Population and sample do incedental random sampling as many as 24 respondents selected merchants. Primary data collected by the respondent inter-islands rice traders who are located around the port of Pare-Pare, Sidrap and Pinrangto the west coast while the east coast is around the portSiwa and Bone, using questionnaires. Population and sample as many as 24 people were selected at random. The data analysis technique that is using a gravity model (Aris 2003, Arifin, 2004, Labys, 1973, Trotter, 1992) Silberberg (1978). The models gravity formula used is as follows:

$$F_{ij} = G\frac{P_i^a, P_j^b}{r_{ij}^c}$$

Specification

F_{ij} = Total shipments of rice from the area i to area j(ton)
P_i = The driving factors of the area i
P_j = The pull factors of the area j
G,a,b,c = Estimated coefficients

RESEARCH RESULTS

According to Rashid (1973), Suprianti (1998), Nasir (1999), Nopirin (1997) that the development of rice production in Indonesia consists of marketing agencies involved, namely traders, small enterprise, and rice mild. Rice trade among the island contributed in the economic development of South Sulawesi considering this economy is still based on the value-added sector of the trade. Contribution of agriculture sector to the Gross Regional Domestic Product of South Sulawesi and amounted to 38.15% of the trade sector of 16.19%.

Characteristics of the origin area such as the population, the surplus rice, rice availability, income per capita, and prices are not shown to be statistically affect the rice trade inter-islands.Thus these characteristics are not proven statistical able to be a driving factor in the regions of origin to enhance the interisland rice trading activities. The similar characteristics possessed goal area proved to be statistically affect the rice trade interisland, except the factor the number of residents in the area of interest has no effect.

TABLE 1: THE DRIVING ANDPULL FACTOROF RICE MARKETING INTER-ISLAND

No	*The driving factor (P_i) dan The pull factors (P_j)*	*constants (G)*	*Estimated coefficient Gravity Model*			
			Coefficient Driving factorsarea$_i$ (a)	*Coefficient pull factors area$_j$ (b)*	*Coefficient of inhibiting Transport Cost (c)*	*R Square (R^2)*
1	Total population	17,292	0,256	-0,409	-1,356	0,803
			(*0,568*)	(*0,251*)	(*0,000*)	
2	surplus rice	7,594	0,672	-0,138	-1,561	0,848
			(*0,259*)	(*0,019*)	(*0,000*)	
3	rice availability	12,831	0,574	-0,441	-1,493	0,848
			(*0,366*)	(*0,019*)	(*0,000*)	
4	income per capita	83,258	-8,149	2,505	-1,437	0,843
			(*0,149*)	(*0,036*)	(*0,000*)	
5	Rice prices	-2,25	-4,816	6,702	-1,450	0,833
			(*0,357*)	(*0,043*)	(*0,000*)	

The table shows. The surplus rice become the highest of contributionof driving forcesmean while, the rice prices become the pull factors of gravity model of rice marketing Inter-island.

In the table i above shows also that factors such as population, surplus rice and rice availability in the area of origin is positively correlated with the number of shipments of rice. The picture also shows a tendency that the rice came from areas where large population, has a surplus availability of rice and rice is also high. The trend can also be proved in the previous analysis that the areas where a lot of shipping rice interisland such as East Java, Central Java, and South Sulawesi also has a large population and has the availability and surplus rice is

also high, while variables such as per capita income and prices are negatively correlated.

This result explains that there is a tendency, especially rice comes from regions that have lower per capita income. In other words, area-based rice farming tend to be poor. Similarly, the low prices of the area of origin to encourage employers to send rice to various inter-island market has a higher price. However, all of these factors did not prove to be statistically significant effect.

Narrowing of the market as well as showing lack of competitiveness of rice in South Sulawesi in various inter-island rice market under competitive market conditions. This is in line with research Riyadi (2002) argued that the marketing margin and correlation coefficients prices in West Java would experience a drop or rise in prices in the market.

DISCUSSION

The activity of rice marketing Interislandis one form of inter-regional linkages spatial interaction. The linkage was always arises because each region-specific functionality based on the characteristics. Differences specific character is what will be the driving factor and a pull factor. Differences in the number of population is caused by the surplus areas of rice and rice deficit areas, the difference in purchasing power, or the difference in price of rice on each can be an attraction and thrust so that the rice trade inter-islands occurred. To analyze the various characteristics of the region can be a pull factor and factors driving the rice trade between the islands, then the method of analysis that can be used is the "gravity model". This model assumes that the level of spatial interaction from region to region is determined by the driving factors in the regions (areas) of the pull factors in the area (area of interest) factor constraints. Limiting factor in question could be distance, travel time, transport costs, cultural gaps, and others.But in this research, inhibiting factor which analyzed is the factor of transport costs. It is based on the assumption that if the geographical distribution of rice will be fully governed by market forces, then the rice pricein the market will be determined by the branch in the wholesale market price plus the cost of business administration. Indirectly this view reveals the cost of transport is a decisive factor in the movement of interisland rice. Then the driving factors and pull factors were analyzed consisting of a variable number of people, a surplus of rice, rice availability, per capita income and the prices in each region.

Based on the analysis by using the gravity models, it is known that the inhibiting factors (cost of transport) significantly to interislandrice market to the real level of 99%. Correlation relationship between an inhibiting factor by the number of interisland shipping rice is negative, which means that the smaller the cost of transport can improve interisland rice marketing activities. The transportation cost is the most important component of the cost of inter-island trade, the size is

determined by many factors such as transportation services are available, the costs small levy or other taxes and duties imposed on the transport of item. Thus, the effect of transport costs of rice marketinterisland, indirectly explained that the transaction costs are high, such as taxes, levies, or other charges which are not necessary in the marketing of rice inter-islands and or transportation services in the trade a bad cause extra costs and weighed on trading costs that will affectof rice marketinter-islands.

The characteristics were similar in areas of interest such as population, and the availability of surplus rice in the area of interest is negatively correlated with the rice shipments inter-islands. While variables such as income per capita and the price in the goal area positively correlated. Unless a variable number of people, all karakteristikterbukti statistically significantly affect rice shipments antarpula. In other words, the smaller availability of rice as well as the higher per capita income and the price of rice in the area, the higher the appeal into rice trading in the marketinterisland.

CONCLUSION

Based on the analysis and discussion it can be concluded that the number of population inareadestinations is not significant to be a pull factor interisland of rice market. The transportation cost is an inhibiting factor which significantly and negatively correlated to the of rice marketinterisland. Increased transaction costs such as levies or charges in the supply chain will have a significant effect interisland rice lowers of rice marketinter-islands.

References

Aris, Ahmad, (2003). *Analysis of Development of Smallholders Coconut Plantation Agribusiness at Indragiri Hilir Regency*, Thesis for Master Degree of PWD IPB.

Arifin, Bustanul, (2004). *Analysis of Agricultural Economy in Indonesia*, Buku Kompas, Jakarta.

Labys, W. C. (1973). *Dynamic Commodity Models: Specification, Estimation, and Simulation*. D.C. Heath and Company. Lexington.

Nasir, M., (1999). *Comparative Advantages of Main Export Commodity of Agricultural Product in South Sulawesi*, Dissertation, Padjadjaran University, Bandung.

Rashid, A. Dan M.A. Chaudhry, (1973). *Marketing Efficiency in Theory and Practice,* A/D/C Teaching Forum, No. 28.

Riyadi, (2002). *Policy Analysis: the Development of Agribusiness Sound Mainstay Agriculture. Agricultural Research and Development Agency*, Monograph Series No. 23 ISBN: 979-8094-67-0.

Simatupang., (1999). *New Alternative of Policy of Price Stabilization Magnification on Trend, Sustainable Intensification and Safety Network of Food Security. Seri no 20*: Central for Social and Economic Agricultural Research and Development, Agricultural Research and Development Agency, Agricultural Department, Bogor.

Supriyati, Hendriarto dan Ari Murtiningsih, (1998). *Price Stabilizationand Grain/Rice Market Integration in some Agroecosystems*, Central for Social and Economic Agricultural Research and Development, Agricultural Research and Development Agency, Agricultural Department, Bogor.

Trotter, B.W., (1992). *Applying Price Analysis to Marketing System :* Methods and Examples from the Indonesia Rice Market. Natural Research Institute, Chatham, 3:25-35.