

Productivity Factor Analysis of Timor Coffee in Coffee Industry

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Abstract—Coffee is one of Indonesia's plantation commodities with the sixth largest production volume, even the high coffee production puts Indonesia into the four largest coffee suppliers in the world. East Nusa Tenggara (NTT) has good potential, spread throughout districts / cities in NTT. Timor Tengah Selatan District (TTS), but based on BPS data, the TTS district has low productivity. Where is the plantation area of 622 ha. in 2015 only produced 64 tons. The plantation sector becomes superior commodity and Coffee is one of the potential plantation sectors and must continue to be developed not only at the level of production, but also for the industrial sector and also trade. The research objectives are as follows: Produce a comparative study of the area of coffee land, land cultivated, land that has not been cultivated, total production. Qualitative Descriptive approach methods, data and information data collection techniques (primary and secondary data) obtained interviews and observations. From the results of the analysis, it can be concluded that the Regency of TTS is geographically potential, but based on having low productivity. From the results of the analysis it was seen that of the total coffee plantation area owned by TTS district, only 15% of the land produced coffee. Fatumnasi subdistrict is the Center for Coffee Commodity in TTS, with a land area of 386 Ha, land that has produced 45 Ha, and a total production of 17 Tons. The rate of growth of production, consumption, and trade in timor coffee from 2015 to 2017 shows increasing results. For this reason coffee commodities deserve serious attention, given the high selling power that is accompanied by the growing coffee industry today.

Keywords—*coffee, timor coffee, coffee industry, productivity, marketing.*

I. INTRODUCTION

Coffee, although not native to Indonesia, has an important role in the plantation industry in Indonesia. Where coffee is one of Indonesia's plantation commodities with the sixth largest production volume after palm oil, rubber, coconut, sugar cane, and cocoa (Meiri, Nurmalina & Rifin, 2013). Even high coffee production puts Indonesia into the four largest coffee suppliers in the world with Brazil, Colombia and Vietnam (Wulandari, 2010). Coffee is one of the plantation products that has good development prospects. By Moeljono (2017) the increase in coffee consumption in Indonesia is caused by several factors such as demographic conditions, increasing level of public welfare, the majority of Muslim population so that they tend to avoid alcoholic beverages, rapid technological developments (smartphones), social media developments, and hotel business developments , restaurants, especially cafes or coffee shops.

Based on data from the Badan Pusat Statistik NTT (BPS), coffee is one of the potential plantation crops in NTT in 2015 with a total production of 21,011 tons per year. BPS data shows the area of coffee plantations in NTT in 2015 was 64,817 ha. Coffee in NTT has good potential, where coffee-producing regions are scattered throughout districts / cities in NTT. Based on BPS data above the majority of districts / cities in NTT has potential. TTS Regency, which has a capital city of Soe, is geographically located in the central part of Timor Island, but based on BPS data, the regencies of Timor Tengah Selatan (TTS) have low productivity. Where in the TTS district with a plantation area of 622 ha. In 2015 only produced 64 tons. The plantation sector becomes superior commodity and Coffee is one of the potential plantation

sectors and must continue to be developed not only at the level of production, but also for the industrial sector and also trade. In order to produce high-quality coffee, it does not stop at cultivation, but also post-harvest handling (Najiyati & Danarti, 2007). Pests are a factor in decreasing productivity, but if viewed from an economic and business perspective, there are problems that are interrelated with this problem.

Thus the development of the downstream sector, especially post-harvest processing will provide value added to coffee products, and also can open employment opportunities and business opportunities so as to cause a broader multiplier effect (I Wayan Nampa, 2011). In addition to the processing of other barriers experienced by coffee farmers related to the financial aspect, the farmers' working capital is very limited causing farmers to only process agriculture and process traditional crops. Whereas the upstream sector is related to the readiness of farmers in accessing the market and preparing products in order to compete in the market globally. Based on the above problems, in this study will focus on analyzing the factors that cause the decline in productivity of timor coffee in TTS district. The research objectives are as follows, resulting in a comparative study of the area of coffee land, land cultivated, land that has not been cultivated, and total production.

II. LITERATURE REVIEW

A. Coffee Industry

According Law No. 5 of 1984 Article 1 concerning industry, what is meant by industry is economic activity that processes raw materials, raw materials, semi-finished goods, and / or finished goods into higher value items for their use including design and engineering activities. Industry according the Badan Pusat Statistik is a company or industrial business which is a unit (business entity) carrying out economic activities, aiming to produce goods or services located in a particular building or location and having a separate administrative record regarding production and cost structure as well as someone or more responsible for the risk of the business. Processing industry according the Badan Resmi Statistik (2010) is an economic activity that conducts activities to change a basic item mechanically, chemically or by hand so that it becomes finished goods, and or an item that has less value becomes a higher value, and its nature becomes closer to the end user. Coffee processing is done through several processes before it can be consumed by humans. Coffee processing can be done in two ways, namely wet method and dry method. Wet processing usually requires greater capital, but is faster and produces better quality (Najiyati and Danarti, 1997). The processing starts from harvesting to milling.

B. Competitiveness

Competitiveness of a commodity can be measured using a comparative and competitive advantage approach. Comparative advantage is a concept developed by David Ricardo to explain the efficiency of resource allocation in a country in an open economic system (Warr, 1992; IPB Research Institute, 1997/1998 in Saptana et.al, 2006).

Ricardo's law of comparative advantage states that even though a country does not have an absolute advantage in producing two types of commodities compared to other countries, mutually beneficial trade can still take place, as long as the price ratio between countries is still different compared to no trade (Lindert and Kindleberger, 1993 in Saptana et.al, 2006). Ricardo considers the validity of labor theory of value which states that only one important factor of production determines the value of a commodity, namely the labor factor. The value of a commodity is proportional (directly) to the amount of labor needed to produce it.

According Simatupang (1991) and Sudaryanto and Simatupang (1993), the concept of comparative advantage is a measure of potential competitiveness in the sense that the competitiveness that will be achieved in an economy is not distorted at all. Aspects related to the concept of comparative advantage are economic feasibility, and those related to competitive advantage are the financial feasibility of an activity.

III. RESEARCH METHOD

Qualitative Descriptive approach method is a method of data processing by analyzing factors related to the object of research by presenting data in more depth to the object of research. Data analysis technique used in this study is an interactive method consisting of data reduction, data presentation, and conclusion drawing in an interactive form with the data collection process as a cycle (Mills and Huberman, 1992), while the triangulation of data in this study will be measured through source triangulation.

• Data Analysis Technique

Data obtained from primary and secondary data were analyzed using qualitative descriptive analysis by means of data obtained from the results of interviews with informants were thoroughly criticized. Data and information data (primary and secondary data) are obtained through the following data collection approaches or techniques:

1. The survey was conducted to collect quantitative and qualitative data and information relating to the potential and area of commodity development, information at the farm level, information at the level of market institutions (productive business units), input prices and commodities in the market.

2. Direct observation in the field, intended to find out and see firsthand the behavior of stakeholders, as well as the existence of farming and market or institutional actors related to commodity development. The results of this observation were used as basic information and clarification and cross-checks of various phenomena revealed.

IV. RESULT

From the results of the processing of secondary data obtained from the Central Timor District BPS (TTS), the results are as follows:

Table 1
Planting Area and Production of Coffee Tree Estate by District 2017

Kecamatan District	Luas Areal/Area (Ha)			Jumlah Luas Area Total of Area	Produksi Production (Ton)
	Blm Meng- hasilkan/not Yet Yielding	Sdh Meng- hasilkan Yielding	Tdk Meng- hasilkan/Ru- sak/Damage		
(1)	(2)	(3)	(4)	(5)	(6)
1. Mollo Utara	20,00	8,00	-	28,00	4,00
2. Fatumnasi	339,00	43,00	2,00	386,00	17,00
3. Tabu	3,00	4,00	2,00	11,00	2,00
4. Nunbena	8,00	10,00	3,00	21,00	5,00
5. Mollo Selatan	2,00	5,00	-	7,00	2,00
6. Pelen	-	2,00	-	2,00	1,00
7. Mollo Barat	3,00	7,00	1,00	11,00	3,00
8. Mollo Tengah	2,00	5,00	-	7,00	2,00
9. Kota Soe	8,00	4,00	-	12,00	2,00
10. Amanuban Barat	2,00	2,00	1,00	5,00	1,00
11. Batu Putih	-	1,00	-	1,00	-
12. Kusimana	2,50	4,00	-	6,50	1,00
13. Amanuban Selatan	5,00	7,00	5,00	17,00	3,00
14. Nobebedi	7,00	5,00	4,00	16,00	2,00
15. Kuerifatu	5,00	7,00	1,00	13,00	3,00
16. Kualim	-	-	-	-	-
17. Amanuban Tengah	16,00	11,00	2,00	29,00	5,00
18. Kolbano	-	1,00	-	1,00	-
19. Denino	-	-	-	-	-
20. Amanuban Timur	4,00	9,00	1,00	14,00	4,00
21. Fatumolo	-	4,00	1,00	5,00	1,00
22. Fatukopa	-	5,00	1,00	13,00	3,00
23. Kik	7,00	5,00	-	12,00	3,00
24. Kot'Olin	-	1,00	-	1,00	-
25. Amanatun Selatan	5,50	7,00	1,00	13,50	3,00
26. Bokine	2,00	3,00	-	5,00	1,00
27. Nunkololo	-	-	-	-	-
28. Nobeana	2,00	4,00	-	6,00	2,00
29. Santian	1,00	5,00	-	6,00	2,00
30. Amanatun Utara	39,00	11,00	1,00	51,00	6,00
31. Tolanas	-	-	-	-	-
32. Kokbaun	-	-	-	-	-
Jumlah/Total	485,00	177,00	26,00	688,00	75,00

Sumber: Dinas Tanaman Pangan, Hortikultura dan Perkebunan Kabupaten Timor Tengah Selatan
Source: Food Crops, Horticulture and Estate Service of Timor Tengah Selatan Regency

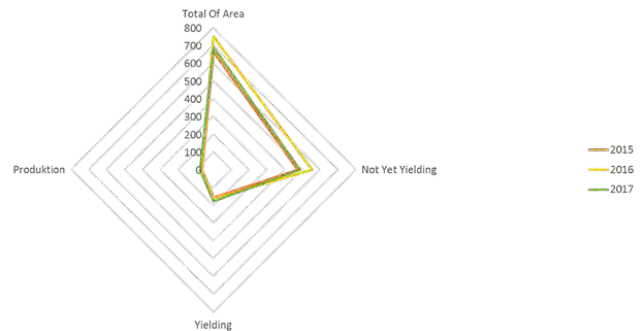
Timor Tengah Selatan District (TTS), which has a capital at Soe, is geographically located in the central part of Timor Island, but based on BPS data, the regencies of Timor Tengah Selatan (TTS) have low productivity. Where in the TTS district with a plantation area of 622 ha. In 2015 only produced 64 tons. The plantation sector becomes superior commodity and Coffee is one of the potential plantation sectors and must continue to be developed not only at the level of production, but also for the industrial sector and also trade. In order to produce high-quality coffee, it does not stop at cultivation, but also post-harvest handling (Najati & Danarti, 2007). Pests are a factor in decreasing productivity, but if viewed from an economic and business perspective, there are problems that are interrelated with this problem.

Based on the data it can be seen that in 2017 Fatumnasi subdistrict became the Center for Coffee Commitment in TTS. Where Fatumnasi sub-district has a land area of 386 Ha, the land that has produced is 45 Ha, and the total production of 17 Ton is the center for timor coffee in TTS. Geographically, Fatumnasi sub-district is ± 1800 meters above sea level and is at the foot of Mount Mutis, making it an ideal area for coffee plantations. Then the Amanatun Utara sub-district with a total production of 6 tons. From these data it can be seen that out of the total coffee plantation area owned by TTS district, only 15% of the land produces coffee. Whereas the comparative analysis results the area of coffee land, the land being cultivated, land that has not been cultivated, the total production of 2015-2017 can be described as follows :

Based on the results of the analysis and comparison from 2015-2017 it can be illustrated that Timor coffee production is influenced by the variables of the area of coffee, land cultivated, land that has not been cultivated, and the total production of Timor coffee. When compared to the level of productivity in 2015-2017, it can be illustrated that the total area in 2017 (688) experienced a decline compared to 2016 (749.5 ha). However, the amount of land cultivated and produced in 2017 (177 ha) has increased compared to 2016 (163 ha) and 2015 (157 ha). While productivity shows that in

2017 (75 tons) experienced an increase in total production compared to 2016 (66 tons) and 2015 (64 tons). This shows that there is an increase in productivity in the last 3 years, while the potential in is still owned by the TTS district where many lands have potential but have not been well cultivated.

Figure 1
Results of analysis of comparative area of coffee land, land that has been cultivated, land that has not been cultivated, total production for 2015-2017



The large amount of land that has not been cultivated is also influenced by the absorption of the domestic market which is still very low, where people prefer instant coffee. Coffee is one of the potential plantation sectors in TTS so it must continue to be developed not only at the production level, but also for the industrial sector and also trade. The growth of the coffee industry through coffee shops that are influenced by lifestyle does not affect local coffee, especially Timor coffee.

V. Conclusion

- The productivity of Timor coffee domestically is not affected by the area or area in the area. From the results of the analysis it was seen that of the total coffee plantation area owned by TTS district, only 15% of the land produced coffee. Fatumnasi sub-district is the center for coffee commodities in TTS. Where Fatumnasi sub-district has a land area of 386 Ha, the land that has produced is 45 Ha, and the total production of 17 Ton is the center for timor coffee in TTS.
- The rate of growth of production, consumption and trade of timor coffee from 2015 to 2017 shows increasing results. Although the value of the increase is not so large, if seen from the increasing growth rate, it makes coffee commodities deserve serious attention, given the high selling power that is accompanied by the growing coffee industry.

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