



EFFICIENCY, MARGIN AND CHANNEL ANALYSIS CORN (*Zea mays*L.)

Wachdijono, Siti Aisyah, Eri Kiswanto, Ganjar Rizqiana, Mohammad Rizaldi, Anta Bayu Kismono

Faculty of Agriculture, Universitas Swadaya Gunung Jati, Indonesia

Email: wachdijono@ugj.ac.id, siti.aisyahagri@ugj.ac.id

Abstract

The development of corn crops that began in the 1990s is considered by many parties to have brought significant changes to improve the welfare of farmers. The purpose of this study is to find out efficiency, margin and channel analysis corn. This study aims to find out: (1) The size of corn trading margin in Sumber Lor Village, Babakan District, Cirebon Regency and, (2) The efficiency of corn trading channels created in Sumber Lor Village, Babakan District, Cirebon Regency. The research design used in this study is a quantitative method, with a survey approach, with a sample of 42 farmers, 9 collecting traders, 3 wholesalers and 7 retailers. Descriptive analysis is used to determine the channel of commerce and the function of tataniaga. While statistical analysis is used to determine trade margins and to determine corn farming analysis. The results showed that: (1) The largest trade margin was in marketing channel II which was Rp. 2,550 per kg and the smallest in commerce channel I which was Rp. 1,945 per kg, and (2) The efficiency of corn trading in trade channels I and II was efficient, with a value of tatangiaga efficiency of 6.78% and 9.47%, (3) There were two systems of commerce channels corn in Sumber Lor Village, Babakan District, namely Farmers - Collecting Traders - Retailers - Consumers, and Farmers - Collecting Traders - Wholesalers - Retailers - Consumers, and (4) The efficiency of corn trading in trade channel I is more efficient than commercial channel II. The shorter the configuration channel, the more efficient the value. Because the longer the commercial channel, the more costs are incurred.

keywords: Analysis; Efficient; Margin; Corn Commerce

INTRODUCTION

Corn is the main commodity in rural areas, especially in Sumber Lor Village, Babakan District, Cirebon Regency. This is in line with the development of corn harvest, production and product area. The success of corn development is inseparable from various factors that support it, namely Bahtiar et al., (2022): (a) the condition of potential natural resources for the cultivation of corn crops including fertile latosol soil types, evenly distributed rainfall throughout the year and the intensity of solar irradiation that is quite a lot, (b) the availability of an institutional system of trade that is established

naturally and harmoniously between farmers and corn collecting traders (village traders). These two aspects have brought the enthusiasm and motivation of farmers to carry out farming activities well. However, the success of this corn farming with the institutional system of governance created has really run efficiently. Because the large amount of production and the expansion of corn farming activities have not been guaranteed to reflect an efficient trading system, especially seen from the profits received by farmers.

Analysis of the efficiency of commerce in general is often used to assess the performance of a tataniaga activity. A commercial activity is said to be good if the implementation of commerce has taken place effectively and efficiently. According to Standing et al., (2010) the characteristics of a trade system have been efficient if two aspects have been fulfilled, namely (a) being able to convey the results of producer farmers to consumers at the lowest cost, and (b) being able to hold a fair price distribution of the entire price paid by the final consumer to all parties involved in the commodity trading activities.

In Sumber Lor Village, farmers receive a lower selling price than they should when sold to corn collectors (PPJ). This is because there is no farmer cooperative that accommodates corn at the farmer level, so that it can help increase the bargaining position of corn farmers in selling their commodities. Most of the corn produced by farmers in Sumber Lor Village is bought by corn collectors. The price of corn purchased by PPJ is relatively low, so the profit received by farmers is lower than that received by PPJ, because PPJ then sells the corn at a relatively higher price to wholesalers.

According to Awaluddin et al., (2018) to obtain a good selling value, the commercial governance mechanism must run well, with the aim that all parties involved benefit. For consumers, high price levels are a burden. For producer farmers, profits can be received low or reduced due to the low level of prices received. Commercial governance can be said to be efficient if it creates a condition where all commercial institutions seen in it get satisfaction with the commercial activities.

METHODS

The research was conducted in Sumber Lor Village, Babakan District, Cirebon Regency, from January to March 2023. The research design used in this study is a quantitative method (Sugiyono, 2017), with a survey approach, with a sample of 42 farmers, 9 collecting traders, 3 wholesalers and 7 retailers. The data collected are primary data and secondary data that have to do with the research problem.

The resulting data is analyzed descriptively, which includes analysis of the distribution of commerce is carried out by identifying the commercial institutions involved, as well as decrypting the flow of commerce that occurs in the form of schemes. Analysis of the trade governance function is seen from each function carried out by the trading institution in the process of distributing corn from the producer point to the consumer point, so as to increase the use value of the product. Farm analysis is

carried out to determine the farm costs incurred during the production process and farm revenues after multiplying the local unit price. Margin analysis is carried out to determine the components of trading costs and the share received by each market participant involved in corn trading. The farmer's share value is used to see if the product trade provides balanced remuneration to farmers. Commercial efficiency is the ratio of the share received by farmers to the price paid by the final consumer or the ratio between the total cost and the total value of the product marketed

RESULTS AND DISCUSSION

1. Identity of Respondent Farmer

The age condition of respondent farmers is mostly between the ages of 50 – 59 years as many as 20 people (36.36%), respondent farmers who are between the ages of 30 – 39 years as many as 11 people (20.00%), respondent farmers aged between 40 – 49 years as many as 18 people (32.73%), and respondent farmers who are between the ages of 60 – 65 years as many as 6 people (10.91%).

The education level of respondent farmers is generally still relatively low, most of them are elementary school graduates as many as 31 people (56.36%) and junior high school graduates as many as 20 people (36.36%), and high school / S1 graduates, as many as 4 people (7.27%).

Most of the respondent farmers experienced between 12 – 20 years as many as 30 people (54.55%), farmer experience between 3 – 11 years as many as 9 people (16.36%), experience of respondent farmers between 21 – 29 years as many as 11 people (20.00%), farmers experienced between 30 – 37 years as many as 5 people (9.09%).

Most of the respondent farmers in the study area had family dependents between 3-4 people per family head, namely 28 people (50.91%), respondent farmers with family dependents of 1-2 people per family head as many as 17 people (30.91%), and the rest of the respondent farmers who had family dependents of more than 4 people per family head as many as 10 people (18.18%).

Most corn farmers have a smaller arable land area of 0.412 ha, namely 37 people (67.27%), respondent farmers who have a land area between 0.412 ha – 0.681 ha as many as 13 people (23.64%), and the rest of the respondent farmers who have a cultivated land area of more than 0.681 ha, which is 5 people (9.09%).

2. Identity of the Corn Trader

Most of the age of collecting traders ranges from 41 – 50 years as many as 6 people (75%) and the rest are in the age range of 30 – 40 years as many as 2 people (25%). The age of one wholesaler is between 41 – 50 years old and one person over 50 years old. The age of retail traders ranges from 41 – 50 years as many as 5 people (83.33%) and the rest are in the age range of 30 – 40 years as many as 1 person (16.67%).

The education level for collecting traders is mostly elementary school (SD) education as many as 4 orang (50%), junior high school as many as 3 people (37.50%), and high school education as many as 1 person (12.50%). The education level for wholesalers as a whole is high school education.

Meanwhile, the education level for Elementary School (SD), Middle and High School retailers is 2 people each (33.33%).

Trading experience for collecting gangs as a whole is 8 people (100%) have trading experience between 10 – 20 years. Trading experience for large traders 1 person (50%) has between 10 – 20 years' experience, and 1 person (50%) has more than 20 years' experience. Trading experience for retail traders is mostly 5 people (83.33%) experienced between 10 – 20 years, and the remaining 1 person (16.67%) experienced trading less than 10 years.

3. Corn Farm Analysis

The average total cost of corn farming with an average land area of 0.338 ha is Rp. 3,118,171 or equivalent to Rp. 8,175,350 per hectare. The non-fixed cost of corn farming with an average area of 0.338 ha is Rp. 2,431,694 or equivalent to Rp. 6,339,224 per hectare. While the fixed cost is Rp. 614,664 or equivalent to Rp. 1,586,017 per hectare.

Corn production produced by farmers with an average land area of 0.338 ha is 2,273 kg or equivalent to 5866 kg per hectare, with an average price of Rp. 2,025 per kg, so that revenue is obtained of Rp. 4,604,080 or equivalent to Rp. 11,880,661 per hectare per season.

The low production of corn in farmers is caused by farmers with an average narrow land less efficient in using existing production factors such as the number of seeds and fertilizers. In addition, the naming technique used is too rare so that less production is obtained (Sanglestsawai et al., 2014).

Corn farming revenues with an average land area of 0.338 ha amounted to 4,604,080 or equivalent to Rp. 11,880,661 per hectare per season, then the costs incurred by corn farmers with an average land area of 0.338 amounted to Rp. 3,168,171 or equivalent to Rp. 8,175,350 per hectare, so that jagu farming income with an average area of 0.338 was Rp. 1,435,909 or equivalent to Rp. 3,705,311 per hectare per season. Corn farming in Sumber Lor Village deserves to be developed with an R/C value of 1.45. This means that with the expenditure of corn farming costs incurred of Rp. 1.00, corn farming revenue of Rp. 1.45 will be obtained.

4. Corn Commerce Analysis

a. Corn Commerce Channel

The corn tatanaga channel is formed from the process of moving corn commodities, namely from farmers as producers to consumers through existing commercial institutions. There are 2 corn trading channels in Sumber Lor Village, namely:

- a. Farmer - Merchant Collector - Merchant Retailer - Consumer.
- b. Farmers - Collecting Merchants - Wholesalers - Retailers - Consumers.

Farmers (producers) sell corn directly to Collecting Traders, considering the higher price received. Then this Collecting Merchant sells it to the next party, can be to consumers or to retailers with costs in the form of marketing and transportation.

In the merchant channel, farmers sell to collecting traders, then collectors sell corn to wholesalers and traders sell to retailers to sell corn to consumers. The collecting traders found to be intermediaries (*brokers*) between farmers and wholesalers (Abebe et al., 2016).

b. Commerce Fees

The lowest tataniga cost on commerce channels I and II is found at retailers, which is Rp. 65 per kg. The fee is used for the provision of packaging equipment (crackle bags) and redistribution in the market. The average cost of trading to wholesalers is Rp. 125 per kg, because wholesalers incur costs for transporting, retributing, unloading/loading corn from trucks and weighing. Meanwhile, the average cost of commerce at collecting traders is Rp. 170 per kg, which consists of transportation costs from the manufacturer's place, purchasing goods (containers), weighing and loading and unloading to trucks. The cost of commerce at collectors is greater than that of wholesalers and retailers. This is because the collecting merchant bears the burden of transportation costs from the producer's place that should be done by the farmer, in addition to the cost of weighing and raising to the truck that should be borne by the wholesaler (Page, 2013).

c. Corn Trading Margin

The largest total trading margin is in marketing channel II which is Rp. 2,550 per kg (46.27%) of consumer purchase price and the smallest in commerce channel I which is Rp. 1,945 per kg (42.40%). This is because in marketing channel II there are three types. Collecting merchants, wholesalers and retailers. In addition, the tataniga II channel requires higher costing because the distance between producers and consumers is so far compared to other channels.

In commerce channels I and II, it can be seen that the margin difference is quite large. This difference in the value of the commercial margin is due to the number of commercial institutions involved in each channel, the functions of the tata niaga, and the benefits taken by each tataniaga institution (Sahroni et al., 2023)v. The lowest margin value is seen in marketing channel I because it only involves two marketing agencies and the profits taken are not as large as in marketing channel II. This suggests that marketing channels that do not involve many marketing agencies are relatively more efficient than long marketing channels. This is in accordance with Marsinah, (2015) opinion that generally retailers take higher profits than other traders because the number of products marketed is less. Furthermore, the results of research by Cristoporus & Sulaeman, (2019) that the percentage of corn tataniga margin in channel one (Farmer / producer - Collecting Trader - Consumer) is smaller than marketing in channel two (Farmer / producer - Collecting Trader - Retailer - Consumer), meaning that the shorter the tataniaga channel, the smaller the percentage of the trade margin.

d. Advantages of Commerce for each Administrative Institution and *Farmer's Share* (Part of the Price received by Producers/Farmers)

The highest trading costs are found in collecting traders and the lowest corn governance costs are found in retailers, but the highest profits in retailers are in commerce channel I at

25.53% and in commerce channel II at 15.19%. The lowest trading profit was obtained by collecting traders, namely in the trading channel I by 10.10% and in the commerce channel II by 9.38%. The amount of costs incurred by the collecting trader is because the collecting trader has to bear the cost of transporting corn, packaging costs and weighing costs. This is in accordance with Titop et al., (2022), that if agricultural commodity prices increase, the burden of high commercial costs lies with collecting traders.

The cost of commerce at retailers is lowest, so the most efficient part of the cost lies with the retailer. This is because retailers are only able to sell a little every day, so retailers take greater profits. This is in accordance with Handayani et al., (2023) opinion that generally retailers take higher profits than other traders because the number of products marketed is less.

Famer's Share is the proportion of the price the producer farmer receives to the price paid by the end consumer. Corn farmers sell their crops to collecting traders at an average price in trade channel I of Rp. 1,997 per kg and retailers sell to end consumers an average of Rp. 3,467 per kg. In commerce channel II it is Rp. 2,039 per kg and retailers sell to end consumers an average of Rp. 3,800 per kg.

Famer's Share or the share of prices received by corn farmers in trade channel I is 57.60% and the share of prices received by corn farmers in trade channel II is 53.65%.

5. Corn Tataniga Efficiency Analysis

In trade channel I, where the total cost of corn trading is Rp. 235 per kg, and the production value / selling price at the consumer level is Rp. 3,467. The efficiency of corn trading in trade channel I of 6.78% is smaller than 50%, meaning that trade channel I shows that it is efficient.

In trade channel II, where the total cost of corn trading is Rp. 360 per kg, and the production value / selling price at the consumer level is Rp. 3,800. The efficiency of corn trading in trade channel II is 9.47% smaller than 50%, meaning that trade channel II shows that it is efficient.

The efficiency of corn trading in trade channels I and II is 6.78% and 9.47%, respectively, meaning that trade channels I and II show that they are efficient. From the results of the research conducted, it can be concluded that the shorter the administrative channel, the more efficient the value. Because the longer the commercial channel, the more costs are incurred.

From the results of the research conducted, it can be concluded that the shorter the corn trading channel, the more efficient. Because the longer the commercial channel, the more costs are incurred. This is supported by the results of research by Cristoporus & Sulaeman, (2019) that the efficiency of corn management in channel one (Farmer / producer - Collecting Trader -Consumer) is more efficient than marketing in channel two (Farmer / producer - Collecting Trader-Retailer-Consumer), meaning that the shorter the tataniaga channel, the more efficient the trade system.

Commercial efficiency will occur if marketing costs can be reduced so that marketing profits can be higher, the percentage of price differences paid by consumers with prices received by producers is not too high, the availability of physical marketing facilities and the existence of healthy market competition Further (Soekartawi, 2000). More Sinring & Buana, (2022), stated that the efficiency of commerce is the ratio between the total cost and the total value of products marketed in tataniaga. Furthermore, according to Rasyaf *in* Abadi et al., (2020) if the share received by producers > 50%, marketing is said to be efficient, and if the share received by producers < 50%, it means that marketing has not been efficient. The value of *Farmer's Share of trade channel I of 57.60% is greater* than Farmer's Share of commerce channel I of 53.65%, indicating that the efficiency rate of corn trading has been effective where the amount exceeds > 50%, and the commercial channel I is more efficient than the second trading channel, meaning that the shorter the corn trading channel, the more efficient it is.

CONCLUSION

Based on the results of research and discussion that has been described upfront, the following conclusions can be drawn the largest trading margin is in marketing channel II which is Rp. 2,550 per kg and the smallest in commerce channel I which is Rp. 1,945 per kg. There are two corn trading channel systems in Sumber Lor Village, Babakan District, namely: Farmers - Collecting Traders - Retailers - Consumers, and Farmers - Collecting Traders - Wholesalers - Retailers - Consumers. The efficiency of corn trading in trade channels I and II has been efficient, with tatangiaga efficiency values of 6.78% and 9.47%. The efficiency of corn trading in commerce channel I is more efficient than that of commerce channel II. The shorter the configuration channel, the more efficient the value. Because the longer the commercial channel, the more costs are incurred.

REFERENCES

- Abadi, R. R., Nursyamsi, I., & Syamsuddin, A. R. (2020). Effect Of Customer Value And Experiential Marketing To Customer Loyalty With Customer Satisfaction As Intervening Variable (Case Study On Gojek Makassar Consumers). *The Asian Journal Of Technology Management*, 13(1), 82–97.
- Abebe, G. K., Bijman, J., & Royer, A. (2016). Are Middlemen Facilitators Or Barriers To Improve Smallholders' Welfare In Rural Economies? Empirical Evidence From Ethiopia. *Journal Of Rural Studies*, 43, 203–213.
- Awaluddin, R., Baga, L. M., & Suparno, O. (2018). Business Model Canvas Innovation And Blue Ocean Strategy For Efishery.
- Bahtiar, B., Salman, D., Arsyad, M., & Azrai, M. (2022). Synergy Of Innovation Between Hybrid Corn Seed Production And Seed Companies: A Review. *AGRIVITA, Journal Of Agricultural Science*, 44(3), 604–615.
- Cristoporus, C., & Sulaeman, S. (2019). Analisis Produksi Dan Pemasaran Jagung Di Desa Labuan Toposo Kecamatan Tawaeli Kabupaten Donggala. *Agroland: Jurnal Ilmu-Ilmu Pertanian*, 16(2).

- Handayani, T. S., Iqbal, M., Marisyah, F., Marsinah, M., & Despita, D. (2023). Culinary Tourism Development In Palembang City: A Case Study Bebek Gendut Restaurant As An Economic Driver In The Traditional Halal Food. *Ekonomica Sharia: Jurnal Pemikiran Dan Pengembangan Ekonomi Syariah*, 8(2), 191–204.
- Marsinah, N. (2015). Evaluasi Pelaksanaan Tutorial Atpem Mahasiswa D 2 Perpustakaan Di Kabupaten Lombok Timur Masa Registrasi 2014.1. *Saung-Guru*, 493.
- Page, T. (2013). *Conservation And Economic Efficiency: An Approach To Materials Policy*. Routledge.
- Sahroni, A., Santiago, F., & Redi, A. (2023). Legal Guarantee Of Confidentiality Of Customer Data In Online Loan Business Services. *Interdisciplinary Journal And Hummanity*, 2(2), 78–84.
- Sanglestsawai, S., Rejesus, R. M., & Yorobe, J. M. (2014). Do Lower Yielding Farmers Benefit From Bt Corn? Evidence From Instrumental Variable Quantile Regressions. *Food Policy*, 44, 285–296.
- Sinring, B., & Buana, A. P. (2022). Legal Politics Of Sustainable Agricultural Empowerment In South Sulawesi For Community Welfare And Sustainable Development. *Golden Ratio Of Law And Social Policy Review (GRLSPR)*, 1(2), 38–48.
- Soekartawi. (2000). *Pengantar Agroindustri*. Raja Grafindo Persada.
- Standing, S., Standing, C., & Love, P. E. D. (2010). A Review Of Research On E-Marketplaces 1997–2008. *Decision Support Systems*, 49(1), 41–51.
- Sugiyono. (2017). *Metode Penelitian Kuantitatif, Kualitatif, Dan R&D*. Alfabeta.
- Titop, H., Suyuti, H. M., & Zakariah, A. (2022). Analisis Usaha Ternak Ayam Petelur Az Di Desa Talumbinga Kecamatan Sabulakoa Kabupaten Konawe Selatan. *Sultra Journal Of Economic And Business*, 3(2), 93–106.

Copyright holder:

Wachdijono, Siti Aisyah, Eri Kiswanto, Ganjar Rizqiana, Mohammad Rizaldi, Anta Bayu Kismono
(2023)

First publication right:

Journal Transnational Universal Studies (JTUS)

This article is licensed under:

